

NBPTS

Adolescence and Young Adulthood
Science

PORTFOLIO INSTRUCTIONS



for teachers of students ages 14–18+

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Intro

The Adolescence and Young Adulthood/Science Portfolio

The portfolio of the *Adolescence and Young Adulthood/Science* assessment gives you the opportunity to sample and present your actual classroom practice over a specified time period. In this *Intro*, you will find an overview of the *Adolescence and Young Adulthood/Science* portfolio entries that includes descriptions of the four portfolio entries, the entry directions, and how the entries are scored.

Be sure to read the *Intro* and *Get Started* before beginning work on your portfolio entries; then read all of the materials for the entries. This will help you gain a sense of the "big picture," so you can make an overall plan for accomplishing all of the work of the assessment.

Get Started contains critical information, such as:

- specific approaches to studying the National Board *Standards*;
- important information to keep in mind throughout your work on the portfolio entries;
- explanations of the different types of writing required in the portfolio entries, with suggestions and examples;
- suggestions for reviewing your written work;
- detailed explanations about how to use video recording equipment effectively;
- optional activities for practicing analysis of student work and of video recordings; and
- Major Ideas in Science, a publication reprinted with permission from the National Academy of Sciences, which can be useful in guiding your choice of a "major idea" for your science entry.

Your comments and suggestions regarding the NBPTS Portfolio CD-ROM are valuable to us. Please take a few minutes to complete this brief survey after you prepare your portfolio.

What Shapes the *Adolescence and Young Adulthood/Science* Portfolio?

The National Board's *Adolescence and Young Adulthood/Science* (AYA/Science) assessment is based on the *NBPTS Adolescence and Young Adulthood/Science Standards*. All future references to the term "Standards" refer to the *NBPTS Adolescence and Young Adulthood/Science Standards*. The document articulates a vision of science teaching and describes what accomplished teachers of adolescent and young adulthood science students should know and be able to do. The *Adolescence and Young Adulthood/Science* assessment provides a framework that, in the portfolio, affords teachers an opportunity to select examples of their practice that show how they embody the *Standards*.

The portfolio is designed to assess a teacher's performance in a wide range of classroom settings. We encourage teachers to use more than one class in completing the portfolio entries in order to demonstrate the broadest possible range of their teaching practice. Teachers who have multiple classes that meet the age and content requirements should take advantage of these different classes when completing the classroom-based entries. However, if you have access to only one class that meets the age and content requirements for the certificate area, you may use a single class for all three of the classroom-based entries. When planning your schedule to determine the student work you will collect and the lessons that you will video record, keep in mind the following requirements for the three classroom-based entries:

- The teaching that you feature must take place with a class that meets the age and content parameters of the certificate area. That is, 51 percent of the students in the class(es) that you use to complete your portfolio entries must be within the stated age range for the certificate area during the period you collect evidence for your portfolio. You may collect evidence for 12 months prior to your portfolio due date.
- The teaching that you feature in Entries 1-3 must come from different units of instruction, different lessons, and different points in time.

The entries have been designed for maximum flexibility. That is, you may sample from your practice in a number of different ways over a period of several months. Careful planning is essential in fulfilling the requirements of this portfolio, which is why we have included time lines and other planning materials in the *Organizer*.

While there is a separate statement of the specific scoring criteria for each of the portfolio entries, in general the *Standards*—and therefore, the assessment—rest on a fundamental philosophical foundation expressed in the National Board's Five Core Propositions:

- Teachers are committed to students and their learning.
- Teachers know the subjects they teach and how to teach those subjects to students.
- Teachers are responsible for managing and monitoring student learning.
- Teachers think systematically about their practice and learn from experience.
- Teachers are members of learning communities.

The Five Core Propositions of the National Board for Professional Teaching Standards

The National Board for Professional Teaching Standards seeks to identify and recognize teachers who effectively enhance student learning and demonstrate the high level of knowledge, skills, abilities and commitments reflected in the following five core propositions.

- Introduction
- What Teachers Should Know and Be Able to Do
- Policy Position
 1. Teachers are committed to students and their learning.
 2. Teachers know the subjects they teach and how to teach those subjects to students.
 3. Teachers are responsible for managing and monitoring student learning.
 4. Teachers think systematically about their practice and learn from experience.
 5. Teachers are members of learning communities.
- Conclusion

Introduction

In 1983, public concern about the state of American education was sharply heightened by the issuance of a federal report titled *A Nation at Risk*. The report provoked a wave of reform initiatives that engulfed the education community. Most of these programs, however, left out a critical element of the education equation: the classroom teacher.

If America is to have world-class schools, it must have a world-class teaching force. Many excellent teachers already work in the schools, but their work often goes unrecognized and unrewarded. As a consequence, many first-rate practitioners leave the schools, and others who could be exceptional teachers never consider teaching. Worse still, the knowledge and skills of the fine teachers who remain are often underutilized, their positive influence allowed only modest scope.

Three years after *A Nation at Risk*, in 1986, the Carnegie Task Force on Teaching as a Profession issued a pivotal report, *A Nation Prepared: Teachers for the 21st Century*. Its leading recommendation called for the establishment of a National Board for Professional Teaching Standards. The following year, this unique institution in the history of American education was born.

The National Board's mission is to advance the quality of teaching and learning by:

- maintaining high and rigorous standards for what accomplished teachers should know and be able to do,
- providing a national voluntary system certifying teachers who meet these standards, and
- advocating related education reforms to integrate National Board Certification in American education and to capitalize on the expertise of National Board Certified Teachers.

National Board Certification, developed by teachers, with teachers, and for teachers, is a symbol of professional teaching excellence. Offered on a voluntary basis, it complements, not replaces, state licensing. While state licensing systems set entry-level standards for beginning teachers, National Board Certification has established advanced standards for experienced teachers.

Linked to these standards is a new generation of fair and trustworthy assessment processes that honor the complexities and demands of teaching. They focus on teacher work and the difficult issues that accomplished teachers confront on a regular basis. The NBPTS assessments for National Board Certification include having teachers construct a portfolio that represents an analysis of their classroom work and participate in exercises designed to tap the knowledge, skills, disposition and professional judgment that distinguish their practice.

At the time the National Board was founded in 1987, it was understood that a critical first task was the development of a policy that would spell out the National Board's vision of accomplished practice. In 1989, it issued its policy statement, *What Teachers Should Know And Be Able To Do*, which has served as a basis for all of the standards development work NBPTS has conducted. To this day, it remains the cornerstone of the system of National Board Certification and has served as a guide to school districts, states, colleges, universities and others with a strong interest in strengthening the initial and ongoing education of America's teachers. It also holds the promise of being a stimulus to self-reflection on the part

of teachers at all levels of accomplishment as well as a catalyst for healthy debate and the forging of a new professional consensus on accomplished practice in each field of teaching.

What Teachers Should Know and Be Able to Do

In this policy, the National Board presents its view of what teachers should know and be able to do--its convictions about what it values and believes should be honored in teaching. This expression of ideals guides all of the National Board's standards and assessment processes.

The fundamental requirements for proficient teaching are relatively clear: a broad grounding in the liberal arts and sciences; knowledge of the subjects to be taught, of the skills to be developed, and of the curricular arrangements and materials that organize and embody that content; knowledge of general and subject-specific methods for teaching and for evaluating student learning; knowledge of students and human development; skills in effectively teaching students from racially, ethnically, and socioeconomically diverse backgrounds; and the skills, capacities and dispositions to employ such knowledge wisely in the interest of students.

This enumeration suggests the broad base for expertise in teaching but conceals the complexities, uncertainties and dilemmas of the work. The formal knowledge teachers rely on accumulates steadily, yet provides insufficient guidance in many situations. Teaching ultimately requires judgment, improvisation, and conversation about means and ends. Human qualities, expert knowledge and skill, and professional commitment together compose excellence in this craft.

The National Board has led the vanguard effort to develop professional standards for elementary and secondary school teaching. The National Board Certified Teachers' stand for professionalism in the schools. The National Board's responsibility is not only to ensure that teachers who become National Board Certified meet its professional standards of commitment and competence, but also to maintain standards and assessments that are so well regarded that America's accomplished teachers will decide to seek National Board Certification.

Policy Position

The National Board for Professional Teaching Standards seeks to identify and recognize teachers who effectively enhance student learning and demonstrate the high level of knowledge, skills, abilities and commitments reflected in the following five core propositions.

- **Teachers are committed to students and their learning.**

Accomplished teachers are dedicated to making knowledge accessible to all students. They act on the belief that all students can learn. They treat students equitably, recognizing the individual differences that distinguish one student from another and taking account of these differences in their practice. They adjust their practice based on observation and knowledge of their students' interests, abilities, skills, knowledge, family circumstances and peer relationships.

Accomplished teachers understand how students develop and learn. They incorporate the prevailing theories of cognition and intelligence in their practice. They are aware of the influence of context and culture on behavior. They develop students' cognitive capacity and their respect for learning. Equally important, they foster students' self-esteem, motivation, character, civic responsibility and their respect for individual, cultural, religious and racial differences.

- **Teachers know the subjects they teach and how to teach those subjects to students.**

Accomplished teachers have a rich understanding of the subject(s) they teach and appreciate how knowledge in their subject is created, organized, linked to other disciplines and applied to real-world settings. While faithfully representing the collective wisdom of our culture and upholding the value of disciplinary knowledge, they also develop the critical and analytical capacities of their students.

Accomplished teachers command specialized knowledge of how to convey and reveal subject matter to students. They are aware of the preconceptions and background knowledge that students typically bring to each subject and of strategies and instructional materials that can be of assistance. They understand where difficulties are likely to arise and modify their practice accordingly. Their instructional repertoire allows them to create multiple paths to the subjects they teach, and they are adept at teaching students how to pose and solve their own problems.

- **Teachers are responsible for managing and monitoring student learning.**

Accomplished teachers create, enrich, maintain and alter instructional settings to capture and sustain the interest of their students and to make the most effective use of time. They also are adept at engaging students and adults to assist their teaching and at enlisting their colleagues' knowledge and expertise to complement their own. Accomplished teachers command a range of generic instructional techniques, know when each is appropriate and can implement them as needed. They are as aware of ineffectual or damaging practice as they are devoted to elegant practice.

They know how to engage groups of students to ensure a disciplined learning environment, and how to organize instruction to allow the schools' goals for students to be met. They are adept at setting norms for social interaction among students and between students and teachers. They understand how to motivate students to learn and how to maintain their interest even in the face of temporary failure.

Accomplished teachers can assess the progress of individual students as well as that of the class as a whole. They employ multiple methods for measuring student growth and understanding and can clearly explain student performance to parents.

- **Teachers think systematically about their practice and learn from experience.**

Accomplished teachers are models of educated persons, exemplifying the virtues they seek to inspire in students — curiosity, tolerance, honesty, fairness, respect for diversity and appreciation of cultural differences — and the capacities that are prerequisites for intellectual growth: the ability to reason and take multiple perspectives to be creative and take risks, and to adopt an experimental and problem-solving orientation.

Accomplished teachers draw on their knowledge of human development, subject matter and instruction, and their understanding of their students to make principled judgments about sound practice. Their decisions are not only grounded in the literature, but also in their experience. They engage in lifelong learning which they seek to encourage in their students.

Striving to strengthen their teaching, accomplished teachers critically examine their practice, seek to expand their repertoire, deepen their knowledge, sharpen their judgment and adapt their teaching to new findings, ideas and theories.

- **Teachers are members of learning communities.**

Accomplished teachers contribute to the effectiveness of the school by working collaboratively with other professionals on instructional policy, curriculum development and staff development. They can evaluate school progress and the allocation of school resources in light of their understanding of state and local educational objectives. They are knowledgeable about specialized school and community resources that can be engaged for their students' benefit, and are skilled at employing such resources as needed.

Accomplished teachers find ways to work collaboratively and creatively with parents, engaging them productively in the work of the school.

Supporting Statement

We each remember the great teachers who touched our lives, kindled our interest and pressed us to do our best. We hold powerful images of such teachers. They exhibited a deep caring and love for children. They conveyed a passion for the subjects they taught, captivating their students with that passion. They approached their work with creativity and imagination, striving constantly to improve. As committed professionals, they were proud to be teachers.

The images of teaching that we share are deceptive as well as compelling. They emphasize teaching's external aspects, not its inner workings. If we fondly recall the great teachers of our past, we also typically see teaching as a humble undertaking. It concerns itself with the least powerful age group in

society. It involves such seemingly routine activities as arranging seatwork, lecturing, reviewing and responding to students' efforts, and disciplining their behavior.

Historically, there is an enduring constancy in the organization of schools, of classrooms and of teaching itself. Self-contained classrooms, whole-group, textbook-centered instruction, teaching as telling, learning as the passive acquisition of facts, standardized testing — these patterns of schooling are as familiar as chalk dust. They constitute an unintended national curriculum that, as an unrelieved diet, does not adequately serve the educational needs of a diverse and dynamic society. Good teachers, of course, depart in many ways from these routines.

These pervasive images underestimate teaching's complexities and freeze the enterprise into forms that overlook its non-routine nature and the importance of independent professional judgment in the life of the accomplished teacher. But teaching is work of the most demanding sort, for teachers must make dozens of decisions daily, command a wide body of knowledge and skill, learn to react instantly, and be disposed to act wisely in difficult situations. And while there are principles and precepts, skills and techniques, to guide the work, teaching is also an activity with artistic aspects, a craft calling for reflection and judgment.

Although complicated, teaching nonetheless evokes simple, reductionist analysis. Much of the discourse on teaching and learning pulls apart what must be joined in practice. Chroniclers of teaching, for example, often assign the teacher's primary loyalty to the student or to the subject, with elementary teachers often characterized as "student-centered" and secondary teachers seen as "subject-centered." This dichotomy is false. Sound teaching merges commitment to students with allegiance to knowledge at all grade levels. All teachers must uphold the claims of knowledge, yet strive to build spacious avenues from such knowledge to students' understanding.

There is likewise a tendency to frame teaching either in terms of imparting valuable knowledge or as encouraging the acquisition of skills. But knowledge and skill are not disjoint. Knowledge — in the form of specific facts and organizing principles — is necessary to the exercise of most skills, just as a range of skills is necessary to the acquisition and construction of knowledge. Knowledge and skill cannot be pulled apart, nor can one assume pride of place over the other.

Another commonplace fallacy is to distinguish "basic" from "higher- order" skills, and to regard mastery of the basics as a precondition to advanced forms of reasoning and functioning. Accomplished teachers realize that higher-order thinking is the hallmark of successful learning at all levels. Students, for example, cannot become good writers without engaging in complex problem-solving processes, nor can they effectively learn basic mathematics simply by memorizing rules for manipulating numbers. There can be no neat division of teaching labor along a basic-to- advanced skills continuum. All teachers must concern themselves with higher-order skills, with the executive functions of reasoning, and with students' capacities to monitor their own learning.

To unify these dichotomies in practice however, requires skill, wisdom and judgment. Accomplished teachers constantly assess and adjust their practice to maintain fidelity to students and to subjects, to knowledge and to skills, and to basic and advanced functions. Professionalism in teaching entails the ongoing pursuit of these unities. Hence, teachers regularly find themselves confronting hard choices — sometimes sacrificing one goal for another, sometimes making compromises.

While teaching demands crisp reasoning and few settings yield to only a single approach, teachers do not have free rein to select any approach that strikes them as felicitous. Rather, their choices are anchored in their own experience and in the settled ground of the knowledge base that defines both efficacious and flawed practice. Being able to apply steady, disciplined judgment and reflective scrutiny within the

bounds set by this constantly expanding body of knowledge is the hallmark of professionalism in teaching. As such, these values will be found at the heart of the standards the National Board will promulgate.

On the Commitment to Professionalism in Teaching

As its title indicates, the National Board is committed to professional standards for teaching. The term "professional" is an honorific in our society, and denotes occupations characterized by certain attributes. Chief among these are a body of specialized, expert knowledge together with a code of ethics emphasizing service to clients. The knowledge base typically provides substantial, but not complete, guidance for professional practice. Professionals possess expert knowledge, but often confront unique, problematic situations that do not lend themselves to formulaic solutions. Professionals must cultivate the ability to cope with the unexpected and act wisely in the face of uncertainty.

Professionals deal with urgent human problems: matters of life and death, justice, hope and opportunity. Essential to their work is the trust of clients. What warrants such trust is the obligation, upheld within the community of professionals, to pursue an ethic of service and to employ special knowledge and expertise in the interests of their clients.

These general observations apply to teaching, but with important distinctions. While teachers employ their knowledge and skill on students, they also strive to empower students to continue the quest for understanding, so that one day the pupil may surpass the instructor. In this regard, teaching is the most democratic of professions. It aims to place within the hands, head and hearts of students the means for them to teach themselves.

The ethical dimensions of teaching also distinguish it from other professions. Unique demands arise because the client's attendance is compulsory and, more importantly, because the clients are children. Thus, elementary, middle and high school teachers are obligated to meet a stringent ethical standard. Other ethical demands derive from the teacher's role as a model of an educated person. Teaching is a public activity; a teacher works daily in the gaze of his or her students, and the extended nature of their lives together in schools places special obligations on the teacher's behavior. Students learn early to read and draw lessons from their teachers' characters. Teachers, consequently, must conduct themselves in a manner students might emulate. Their failure to practice what they preach does not long elude students, parents or peers. Practicing with this additional dimension in mind calls for a special alertness to the consequences of manner and behavior. Standards for professional teaching ought, therefore, to emphasize its ethical nature.

What the National Board Will Value in Teaching

The rich amalgam of knowledge, skills, dispositions and beliefs that will characterize National Board Certified teachers are clustered under the five core propositions presented above. What follows is an elaboration of these principles that go to the heart of the National Board's perspective on accomplished teaching.

Proposition #1: Teachers are Committed to Students and Their Learning

Fundamental to the teacher's credo is the belief that all students can learn. Furthermore, they act on that belief. Accomplished teachers like young people and are dedicated to and skilled at making knowledge accessible to all students, even as they acknowledge their distinctive traits and talents. Success depends on teachers' belief in the dignity and worth of all human beings and in the potential that exists within each child. Teachers typically do not work one-on-one with students for extended periods of time because they are responsible for groups. But within this constraint, they are attentive to human variability and its influence on learning.

Teachers Recognize Individual Differences in Their Students and Adjust Their Practice Accordingly

To respond effectively to individual differences, teachers must know many things about the particular students they teach: Alex has a stutter, Maria loves science fiction, Toby is anxious about mathematics, Marcus is captivated by jazz. But accomplished teachers know much more — whom their students go home to at night, how they have previously performed on standardized tests, what sparks their interest. This kind of specific understanding is not trivial, for teachers use it constantly to decide how best to tailor instruction.

As diagnosticians of students' interests, abilities and prior knowledge, skillful teachers learn to "read" their students. When planning a unit on aging, for example, they will anticipate what concepts and activities certain students may find problematic. Watching a student work on a computer, they will look for signs of progress. By keeping a finger on the pulse of the class, teachers decide when to alter plans, work with individual students, or enrich instruction with additional examples, explanations or activities.

Proficient teachers learn from their experiences. They learn from listening to their students, from watching them interact with peers, and from reading what they write. The information they acquire about students in the course of instruction subsequently becomes part of their general knowledge of education. Such monitoring and learning is no easy feat. What teachers are able to see, hear and learn is colored by their own prior knowledge and experience. Thus teachers must, in their efforts to work with children different than themselves, monitor both what they see and hear, and what is not so close to the surface. They must strive to acquire a deep understanding of their students and the communities from which they come that shape students' outlooks, values and orientations toward schooling.

Teachers Have an Understanding of How Students Develop and Learn

In addition to particular knowledge of their students, teachers use their understanding of individual and social learning theory, and of child and adolescent development theory, to form their decisions about how to teach. They are familiar with the concepts generated by social and cognitive scientists that apply to teaching and learning. Moreover, they integrate such knowledge with their personal theories of learning and development generated from their own practice. For example, accomplished teachers know that old

theories of a monolithic intelligence have given way to more complex theories of multiple intelligences. Current thinking no longer casts "intelligence" as a context-free, one-dimensional trait. Instead, it recognizes different kinds of intelligence — linguistic, musical, mathematical, spatial, kinesthetic, personal. This perspective also holds that there are variations in the sources of intelligence (e.g., practical experience versus formal study) and the forms of intelligence (e.g., procedural skills versus propositional knowledge). Both their knowledge of these theories and their experiences in classrooms have taught teachers that each student has different strengths, perhaps even gifts. Teachers think about how to capitalize on these assets as they consider how best to nurture additional abilities and aptitudes.

Moreover, teachers recognize that behavior always takes place within a particular setting that, to some extent, defines the behavior. They know, for instance, that students who cannot flawlessly recite multiplication tables may still be able to multiply in other contexts (e.g., in calculating whether they have enough money for items at the grocery store). Accomplished teachers are aware that school settings sometimes obscure a clear vision of students' aptitudes and intelligences. Therefore, they strive to provide multiple contexts in which to promote and evaluate those abilities.

They also recognize the ways in which intelligence is culturally defined. That is, what is considered intelligent behavior is largely determined by the values and beliefs of the culture in which that behavior is being judged. Accomplished teachers recognize that in a multicultural nation students bring to the schools a plethora of abilities and aptitudes that are valued differently by the community, the school and the family. The knowledge, skills, abilities and dispositions that are nurtured in a Native American community in the state of Washington will differ from those valued in an Hispanic community in Florida. Likewise, those cultivated by a suburban community in Utah will differ from those developed in urban New York. Thus, teachers are attuned to the diversity that is found among students and develop an array of strategies for working with it. This includes providing educational experiences which capitalize on and enlarge the repertoires of learning and thinking that students bring to school.

Teachers Treat Students Equitably

As stewards for the interests of students, accomplished teachers are vigilant in ensuring that all pupils receive their fair share of attention, and that biases based on real or perceived ability differences, handicaps or disabilities, social or cultural background, language, race, religion, or gender do not distort relationships between themselves and their students. This, however, is not a simple proposition. Accomplished teachers do not treat all students alike, for similar treatment is not necessarily equivalent to equitable education. In responding to differences among students, teachers are careful to counter potential inequities and avoid favoritism. This requires a well-tuned alertness to such matters and is difficult, as we have only modest knowledge of human differences and how best to respond to them. Hence, accomplished teachers employ what is known about ineffectual and effective practice with diverse groups of students, while striving to learn more about how best to accommodate those differences.

Teachers' Mission Extends Beyond Developing the Cognitive Capacity of Their Students

Teachers are concerned with their students' self-concept, with their motivation, with the effects of learning on peer relationships, and with the development of character, aspiration and civic virtues. These aspects of the student — important as they are in their own right — are also essential to intellectual development. Proficient teachers consider students' potential in this broader sense when making decisions about what and how to teach.

Proposition #2: Teachers Know the Subjects They Teach and How to Teach Those Subjects to Students

If one cardinal precept of teaching is a commitment to the welfare and education of young people, the other is a commitment to subject matter. Accomplished teachers are dedicated to exposing students to the social, cultural, ethical and physical worlds in which they live, and they use the subjects they teach as entrees into those worlds. Thus, elementary teachers know about geography and its relationship to commerce and history. Foreign language teachers know how language and culture interact and fuse. But, it is not sufficient that teachers know the facts that fall into these different content domains. Understanding subject matter entails more than being able to recite lists of dates, multiplication tables, or rules of grammar.

Teachers Appreciate How Knowledge in Their Subjects is Created, Organized and Linked to Other Disciplines

Teachers in command of their subject understand its substance -- factual information as well as its central organizing concepts -- and the ways in which new knowledge is created, including the forms of creative investigation that characterize the work of scholars and artists.

Physics teachers know about the roles played by hypothesis generation and experimentation in physics; mathematics teachers know the modes of justification for substantiating mathematical claims; art teachers understand how visual ideas are generated and communicated; history teachers know how historians use evidence to interpret past events; and English teachers understand the relationships among reading, writing and oral language. Many special education teachers have a slightly different orientation -- focusing on skill development as they work to help moderately and profoundly handicapped students achieve maximum independence in managing their lives.

Understanding the ways of knowing within a subject is crucial to the National Board Certified teacher's ability to teach students to think analytically. Critical thinking does not occur in the abstract, for the thinker is always reasoning about something. Proficient teachers appreciate the fundamental role played by disciplinary thinking in developing rich, conceptual subject-matter understandings. They are dedicated to exposing their students to different modes of critical thinking and to teaching students to think analytically about content.

Teachers represent the collective wisdom of our culture and insist on maintaining the integrity of the methods, substance and structures of disciplinary knowledge. In the face of pressures to portray knowledge in weak and diluted forms, they remain firm. Their role, however, is not just to reinforce the status quo. Rather, appreciative of the fact that there are multiple perspectives and interpretations in each discipline, accomplished teachers encourage students to question prevailing canons and assumptions to help them think for themselves.

It is sometimes assumed that elementary school teachers need not be equipped to approach their subjects critically. But all accomplished teachers, regardless of the ages of their students, are charged with

teaching students about something, and in order to do so, they must appreciate its complexity and richness. Teachers must possess such knowledge if they are to help their students develop higher-order thinking skills -- the hallmark of accomplished teaching at any level. Being able to engage elementary school children in the broad array of subjects they can profitably come to appreciate makes elementary school practice especially challenging. This does not imply that fourth-grade teachers should have the same command of biology as high school biology teachers. However, it does mean that they have an understanding of science that allows them to present basic precepts to their students and introduce them to the joy of discovering -- and thinking about -- the natural world of which they are a part.

Teachers Command Specialized Knowledge of How to Convey a Subject to Students

Knowledge of subject matter is not synonymous with knowledge of how to reveal content to students so they might build it into their systems of thinking. Accomplished teachers possess what is sometimes called "pedagogical content knowledge." Such understanding is the joint product of wisdom about teaching, learning, students and content. It includes knowledge of the most appropriate ways to present the subject matter to students through analogies, metaphors, experiments, demonstrations and illustrations. Subject-specific knowledge also includes an awareness of the most common misconceptions held by students, the aspects that they will find most difficult, and the kinds of prior knowledge, experience and skills that students of different ages typically bring to the learning of particular topics. Proficient science teachers, for example, know that some students have misconceptions about gravity that can influence their learning, while proficient art and music teachers know that young children arrive at school at various stages of maturity with respect to eye- hand coordination. Teachers use this knowledge of their students to structure instruction that facilitates further development.

Thus, subject-specific pedagogical knowledge is not a bag of tricks, but a repertoire of representations that combines instructional techniques with subject matter in ways that take into account the mix of students and school contexts that confront the teacher. Such subject-specific teaching knowledge embodies a way of reasoning through and solving the problems that arise in the daily work of teachers -- decisions ranging from what aspects of the subject matter to emphasize to decisions about how to pace instruction. In making these choices, teachers bring to bear their knowledge of students and learning and teaching and subject matter.

Professional teachers' instructional repertoires also include knowledge of available curricular resources such as primary sources, models, reproductions, textbook series, teachers' guides, video recordings, computer software and musical recordings. Their commitment to learning about new materials includes keeping abreast of technological developments that have implications for teaching; for example, how to engage students in the rapidly expanding field of computer technology, as well as how to use the computer to enhance their own teaching. Thus, able teachers keep current with the growing body of curricular materials -- including literature available through their professional organizations -- and constantly evaluate the usefulness of those materials based on their understanding of curriculum theory, of students, of subject matter, and of the school's and their own educational aims.

Teachers Generate Multiple Paths to Knowledge

Knowledgeable teachers are aware there is value in both structured and inductive learning. That is, while it is useful to teach students about the concepts and principles that scholars have generated in the various disciplines, it is also valuable to engage students in learning by discovery, where they themselves search for problems, patterns and solutions. Proficient teachers help students learn to pose problems and work through alternative solutions, in addition to teaching them about the answers that others have found to similar problems.

The posing and solving of problems on their own is central to the development of true understanding by students -- moving far beyond the rote memorization of facts, the easy manipulation of formulas or the facile playing of a musical scale. Teaching for understanding requires students to integrate aspects of knowledge into their habits of thinking, rather than simply store fragmented knowledge bits. It also means learning to think in a nonlinear way, approaching issues from different angles, weighing multiple criteria and considering multiple solutions. Thus, in the eyes of the proficient teacher, "knowledge" is not conceived narrowly as a lower-level form of understanding. Rather, knowledge is cast in the richest light - as a combination of skills, dispositions, propositions and beliefs -- integrated and flexible, elaborate and deep. Furthermore, understanding involves the ability to apply such knowledge to problems never before encountered by teacher or student. Accomplished teachers appreciate that this is the kind of knowledge and understanding that counts, and that this type of learning cannot be rushed.

Proposition #3: Teachers are Responsible for Managing and Monitoring Student Learning

Professional teachers hold high expectations for all students and see themselves as facilitators of student learning. To fulfill these responsibilities, teachers must create, enrich and alter the organizational structures in which they work with young people. They also find ways to capture and sustain the interest of their students. Because time is a precious commodity in schools, teachers attempt to make the most efficient use of it. To accomplish these tasks, teachers seek to master the body of generic pedagogical knowledge.

Teachers Call on Multiple Methods to Meet Their Goals

Accomplished teachers know and can employ a variety of generic instructional skills -- how to conduct Socratic dialogues, how to lecture, how to oversee small cooperative learning groups. Although much of instruction is determined by the content to be taught, there are some commonalities about teaching methods that guide their practice. They are aware of what can reasonably be covered in a 45- minute roundtable discussion, when to hold back and let students figure out their own solutions, and what types of questions provoke the most thoughtful conversation. But it is not sufficient that teachers know about different modes of instruction; they must also know how to implement those strategies. Traditional distinctions between knowing and doing have obscured the fact that thought and action interpenetrate in teaching -- knowing about something and knowing how to do something are both forms of understanding central to teaching.

Because students vary in learning styles and because different settings afford differing learning opportunities, accomplished teachers know when and how to alter the social and physical organizational structure of the learning environment. It is not enough to be a master lecturer, for there are many times when lecturing is not an effective way to teach. An outdoor experiment, a mock trial or an economic simulation, for example, may be more appropriate. Alternatively, a playlet or a debate might be a more effective way to engage students in thinking and learning. Teachers know about the breadth of options available to them, such as innovative instructional formats that involve discovery learning, conceptual mapping, brainstorming, working with computers, as well as more traditional tried-and-true methods.

Teachers not only have the opportunity to vary instructional settings and to employ a range of instructional materials, they also have the opportunity to call on various human resources to custom- tailor the working environment for students. Accomplished teachers know how to mobilize students to tutor their peers and how to engage aides and volunteers as teaching assistants. In schools where staffing arrangements are not fixed and inflexible, teachers also have a good appreciation of their colleagues' skills and the circumstances in which their colleagues' talents can best complement their own. Professional teachers wisely enlist the knowledge and expertise of their fellow faculty members in a variety of ways as they seek to provide their students with as rewarding a learning experience as possible.

Accomplished teachers also know the strengths and weaknesses of these options, and their suitability or incompatibility for certain students and groups. The settings that a teacher chooses are not just matters of

personal preference, but are grounded in the literature of teaching. Teaching, to the accomplished teacher, is an elegant web of alternative activities in which students are engaged with the content; sometimes with the teacher, sometimes with each other, sometimes alone.

Teachers Orchestrate Learning in Group Settings

Teachers know how to manage groups of students. They are responsible for setting forth the social norms by which students and teachers act and interact, helping students learn to adopt appropriate roles and responsibilities for their own learning and that of their peers. This includes teaching students to work independently without constant direct supervision by a teacher.

Accomplished teachers have developed systems for overseeing their classrooms so that students and teacher alike can focus on learning, not on controlling disruptive behavior. Discipline and management techniques vary, and no one system has been proven most effective. Hence, proficient teachers consider the desired learning results, their knowledge of their students and the social context, and their own prior experience in selecting management strategies.

Teachers also know that different instructional formats often require different norms of social interaction. Accomplished teachers can alternate among organizational arrangements and understand how different structures cast students and teachers in different roles. Applying their knowledge of the relative strengths and weaknesses of different structures, they weigh these considerations when deciding which instructional strategy and organizational structure will best enhance student learning. They also continually search for new forms of organization that may expand their repertoire and prove effective.

Teachers Place a Premium on Student Engagement

Facilitating student learning is not simply a matter of placing young people in educative environments, for teachers must also motivate them, capturing their minds and hearts and engaging them actively in learning. Thus, the National Board Certified teacher understands the ways in which students can be motivated and has strategies to monitor student engagement. The teacher's role in building upon student interests and in sparking new passions is central to building bridges between what students know and can do and what they are capable of learning.

Proficient teachers also know that motivating students is not always equivalent to making learning fun, for learning can be difficult work. Developing an acute sense of one's body in dance, for example, requires intense intellectual and physical concentration. Writing a short story requires drafting and re-drafting, editing and re-editing, occasionally submitting oneself to the critiques of peers and teachers. To practice effectively, teachers need to know how to encourage students even in the face of temporary failure and the inevitable doubts that students meet as they push themselves to new affective, intellectual and physical planes. With such learning comes the real joy in education, the satisfaction of accomplishment.

Teachers Regularly Assess Student Progress

While teachers are not always the central actors in their students' educational experiences, they are ultimately responsible for the creation and maintenance of those experiences and bear a considerable responsibility for what students learn at school. Proficient teachers, therefore, can judge the relative success of the activities they design. They can track what students are learning (or not learning), as well as what they, as teachers, are learning.

Assessment in teaching is not a simple task; teachers must monitor the successes and failures of individual students and evaluate their classes as collectives of learners. Additionally, they make judgments about themselves as teachers in relation to those students and classes. Although these judgments are interdependent of one another, they are not necessarily synonymous. One of the essential tensions of teaching is that teachers teach individual students, while managing groups. Accomplished teachers do not treat a class as a monolith. They know that a class does not learn; individual students do. But individuals neither learn the same things, nor learn at the same pace.

Accomplished teachers use information about how the students in their classes are doing "on average" as a guide to making judgments about the relative success or failure of an instructional strategy. But they do not forget that there are few average students. They know that some students have moved far beyond that "average" evaluation, while others trail. And while they have to make decisions about what to do with the class as a whole, proficient teachers find ways to accommodate what they know about individual students and what they are learning in their plans for the whole group.

Accomplished teachers understand that the purposes, timing and focus of an evaluation affect its form. They are astute observers of students -- their movements, their words and their minds. Teachers track student progress with a variety of evaluation methods, each with its own set of purposes, strengths and weaknesses. Their knowledge extends to creating their own, sometimes innovative, tools for evaluation, including portfolios, video recordings, demonstrations and exhibitions. In addition, they may use more traditional measures such as quizzes or exams. Sometimes teachers ask questions in the middle of a group discussion in order to assess how well students are following the presentation of information; or they may talk individually with students while they are engaged in independent work. At other times they watch their students' behavior as they read to each other or work in the laboratory.

Teachers frequently do not assign grades, for evaluation is not always for the purpose of recording grades; rather, it allows students and teachers to assess where they stand. Teachers also assess students to determine how much they have learned from a unit of instruction, be it a week on seeds, a semester of photography, or a year of athletic training. Student responses then contribute to teachers' decisions about whether to reteach, review or move on. By continually adding to their repertoire of methods for assessing what students have learned, as well as constantly monitoring student progress, accomplished teachers are able to provide constructive feedback to students, parents and themselves. Finally, such teachers help their students to engage in self-assessment, instilling in them a sense of responsibility for monitoring their own learning.

Teachers Are Mindful of Their Principal Objectives

Teachers also know about planning instruction -- identifying and elaborating educational objectives, developing activities to help them meet their goals and drawing upon resources that will serve their purposes. Experienced teachers do not all plan alike. Some do not write elaborate plans prior to teaching, having automated their planning through years of experience in classrooms. Other teachers plan in detail (e.g., creating individual educational plans for special education students). No matter what form their final plans take -- scribbles on a scrap of paper or lengthy and detailed outlines accomplished teachers can clearly articulate their goals for students.

Proposition #4: Teachers Think Systematically About Their Practice and Learn from Experience

As with most professions, teaching requires an open-ended capacity that is not acquired once and for all. Because they work in a field marked by many unsolved puzzles and an expanding research base, teachers have a professional obligation to be lifelong students of their craft, seeking to expand their repertoire, deepen their knowledge and skill, and become wiser in rendering judgments. Accomplished teachers are inventive in their teaching and, recognizing the need to admit new findings and continue learning, stand ready to incorporate ideas and methods developed by others that fit their aims and their students. What exemplifies excellence, then, is a reverence for the craft, a recognition of its complexities, and a commitment to lifelong professional development.

Teachers Are Continually Making Difficult Choices That Test Their Judgment

The demands of teaching often present stiff challenges that do not lend themselves to simple solutions. Conflicting objectives regularly require teachers to fashion compromises that will satisfy multiple parties. A Western Civilization teacher, for example, attempting to reconcile demands for coverage with demands for in-depth understanding, will do what is necessary to race from Plato to NATO, yet set aside time to develop in students the understanding that history is evolutionary rather than a series of events strung together chronologically. Likewise, a third-grade teacher will find a way to introduce students to the idea that writing is a thinking process, while ensuring that students are learning the basics of spelling and grammar.

Teachers also face choices that force them to sacrifice one goal for another. For instance, teachers who are committed to teaching mathematics for conceptual understanding want to teach students to see number relationships in the real world, to represent them with appropriate symbols, and to use their knowledge of mathematical formulas and computational skills to manipulate those numbers. Such teaching requires giving students time to frame their own problems, find their own solutions, and compare those solutions with alternatives posed by their classmates. Students who have learned through experience that math class involves filling out worksheets and doing problem sets may dislike the uncertainty inherent in problems with multiple or no solutions; they may be troubled that their teacher now wants them to discuss the reasons why a particular solution makes sense. Abandoning speed and accuracy as the criterion of success may temporarily jeopardize students' performance on standardized tests, even as the teacher fosters growth in the depth of students' mathematical competence. In deciding to teach in this way, a teacher risks alienating students, parents and administrators who have their own strong ideas of what math class is supposed to look like and the kind of competence it is supposed to yield.

Such circumstances call on teachers to employ their professional knowledge of what makes for sound practice, with the interest of their students given paramount consideration. While more than one satisfactory path may be derived to balance non-complementary objectives, the teacher's decision will be grounded in established theory and reasoned judgment.

Teachers Seek the Advice of Others and Draw on Education Research and Scholarship to Improve Their Practice

Aware that experience is not always a good teacher, proficient teachers search out other opportunities that will serve to cultivate their own learning. As savvy students of their own teaching, they know the value of asking others to observe and offer a critique of their teaching. They also know the value of writing about their work and of soliciting reactions from parents and students. Thus, masterful teachers develop specialized ways to listen to their students, colleagues and administrators, and reflect on their teaching in order that they might improve their practice.

Able teachers are also students of education scholarship and are cognizant of the settled and unsettled territory in their field. They stay abreast of current research and, when appropriate, incorporate new findings into their practice. They take advantage of teacher centers and special conferences and workshops. They might conduct and publish their own research, if so inclined, for testing of new approaches and hypotheses is a commonplace habit among adept teachers, even if a normally overlooked and undocumented one.

Wise teachers understand the legitimacy and limitations of the diverse sources that inform teaching and they continuously draw upon them to enrich their teaching. Their enthusiasm for, and commitment to, continued professional development exemplifies a disposition they hope to nurture in students. Hence, the thinking, reasoning and learning that characterize first-rate teaching are doubly valuable: not only are thoughtful teachers able to teach more efficiently and effectively, they are also models for the critical, analytic thinking that they strive to develop in our youth. Teachers who are themselves exemplars of careful reasoning -- considering purposes, marshaling evidence and balancing outcomes -- are more likely to communicate to students the value and manner of such reasoning. Moreover, they model other dispositions and traits as well, such as a commitment to creativity in their work and the disposition to take risks in exploring new intellectual, emotional, physical or artistic territories.

Proficient teachers, then, are models of educated persons. Character and competence contribute equally to their educative manner. They exemplify the virtues they seek to impart to students: curiosity and a love of learning; tolerance and open-mindedness; fairness and justice; appreciation for our cultural and intellectual heritages; respect for human diversity and dignity; and such intellectual capacities as careful reasoning, the ability to take multiple perspectives, to question received wisdom, to be creative, to take risks, and to adopt an experimental and problem-solving orientation.

Proposition #5: Teachers are Members of Learning Communities

Teaching most commonly is regarded as the daily conduct of lessons and the provision of learning experiences. But the work of teaching reaches beyond the boundaries of individual classrooms to wider communities of learning. In order to take advantage of the broad range of professional knowledge and expertise that resides within the school, accomplished teachers have a range of duties and tasks outside the direct instruction of students that contribute importantly to the quality of the school and to student learning.

There are two broad areas of responsibility. One involves participation in collaborative efforts to improve the effectiveness of the school. The second entails engaging parents and others in the community in the education of young people.

Teachers Contribute to School Effectiveness by Collaborating with Other Professionals

Teaching is often portrayed as the implementation of policy and curriculum developed by others -- as following orders. The National Board advocates a more proactive and creative role for teachers: engaging them in the analysis and construction of curriculum, in the coordination of instruction, in the professional development of staff and in many other school-site policy decisions fundamental to the creation of highly productive learning communities.

While state authorities and local school district leadership establish broad goals, objectives and priorities for the schools, professional teachers share responsibility with colleagues and administrators for decisions about what constitutes valuable learning for students. This includes their participation in critically analyzing the school curriculum, identifying new priorities and communicating necessary changes to the school community. Teachers' knowledge of curriculum and their students are essential to discharging these responsibilities effectively. But a readiness to work collaboratively on such matters and not blindly accept curricular conventions is also necessary.

Accomplished teachers attend to issues of continuity and equity of learning experiences for students that require school-wide collaboration across the boundaries of academic tracks, grade levels, special and regular instruction and disciplines. Such boundaries, constructed as much out of traditional patterns of school organization as out of instructional rationales, are often dysfunctional and damaging to student learning. National Board Certified teachers cultivate a critical spirit in appraising such schooling commonplaces, together with a willingness to work with administrators toward school- wide improvements that can include revision of organizational as well as instructional features of schooling.

The development of curriculum and the coordination of instruction are particularly important functions shared among teachers and administrators. Proficient teachers collaborate in planning the instructional program of the school to assure continuity of learning experiences for students. They possess the interpersonal skills needed to work on teams and a willingness to work together in the interest of the school community. Their understanding of the technical requirements of a well-coordinated curriculum

enables them to participate in planning and decision-making within teams, departments or other educational units outside the classroom, laboratory or studio.

Consonant with their role in curriculum planning and coordination, teachers are aware of the learning goals and objectives established by state and local authorities. Professional practice requires that teachers be knowledgeable about their legal obligation to carry out public policy as represented by state statute and regulation, school board directives, court decisions and other policies.

Accomplished teachers also participate in the coordination of services to students. Today's schools include a wide variety of educational specialists, and with increasing specialization has come the need for coordination, lest pupils' educational experiences become fragmented. The increased practice of "mainstreaming" special-needs students to assure that they are being educated in the least restrictive environment has meant that general and special education teachers need to work with one another. Compensatory education programs typically involve teaching pupils outside regular school settings. The various forms of English as a second language, bilingual and English-immersion programs often require cooperation among teachers of non- and limited-English-speaking youth. National Board Certified teachers are adept at identifying students who might benefit from such special attention and at working in tandem with specialists.

In addition to working on the improvement of school-wide curricula and the coordination of instruction, teachers work together to strengthen their teaching. Sometimes they observe each other teach; at other times they engage in discussions about teaching; and occasionally they collaborate in trying out new instructional strategies. While the particulars of how teachers choose to improve their instruction will vary according to the structure of opportunity and a teacher's dispositions and interests, the principle underlying such engagement is the continuous pursuit of teaching excellence in the company of peers.

Strong schools emphasize a process of continuous improvement. They are organized to find and solve problems and to locate, invent and experiment with different methods of instruction and school organization. Teachers within such schools work not only on professional development, but also on school-wide improvements. This expectation is part of what constitutes a professional orientation to teaching and part of what distinguishes the professional teacher.

The conventional image of the accomplished teacher as solo performer working independently with students is narrow and outdated. Committed career teachers assume responsibility in cooperation with their administrators for the character of the school's instructional program. They are team players willing to share their knowledge and skill with others and participate in the ongoing development of strong school programs. This participation may take many forms, such as mentoring novices, serving on school and district policy councils, demonstrating new methodologies, engaging in various forms of scholarly inquiry and artistic activity, or forming study groups for teachers.

Teachers Work Collaboratively with Parents

Teachers share with parents the education of the young. They communicate regularly with parents and guardians, listening to their concerns and respecting their perspective, enlisting their support in fostering learning and good habits, informing them of their child's accomplishments and successes, and educating them about school programs. Kindergarten teachers, for example, can help parents understand that reading stories to their children is more important to literacy development than completing worksheets on letters.

In the best of all worlds, teachers and parents are mutually reinforcing partners in the education of young people. But three circumstances complicate this partnership. First, the interests of parents and schools

sometimes diverge, requiring teachers to make difficult judgments about how best to fulfill their joint obligations to their students and to parents. Second, students vary in the degree and kind of support they receive at home for their school work. The effects of culture, language, and parental education, income and aspirations influence each learner. Teachers are alert to these effects and tailor their practice accordingly to enhance student achievement. However, when faced with an unavoidable conflict, the teacher must hold the interest of the student and the purposes of schooling paramount. Third, the behavior and mind-set of schools and families can be adversarial. Some parents are distrustful of the school's values, and the schools sometimes underestimate the family's potential to contribute to their children's intellectual growth. Students get caught in the middle, their allegiance to and affection for each party challenged by the other. Accomplished teachers develop skills and understandings to avoid these traditional pitfalls and work to foster collaborative relationships between school and family.

The changing family structure in our society creates new challenges as well, for there are now more youth with single parents, working parents and parents with inadequate income. Thus, creating home-school partnerships has become more difficult for teachers and parents in many communities. In attempting to work creatively and energetically with families in the interest of students' development, able teachers acquire knowledge and understanding of individual students' lives outside school. A teacher's foremost responsibility is to the intellectual development of our youth, but they are mindful of the broad range of children's needs, including the need for guidance and the strong presence of caring and nurturing adults. This is a difficult set of obligations to fulfill. On the one hand, teachers are prepared neither by training nor by role to serve as parent surrogates or social workers. The distinctive mission of teaching is to promote learning, a complex undertaking in itself. On the other hand, education's broad and humane purposes do not admit any narrow specialization. Students' physical, emotional, and social well-being cannot be separated from their intellectual growth.

Teachers Take Advantage of Community Resources

Professional teachers cultivate knowledge of their school's community as a powerful resource for learning. The opportunities are many for enriching projects, lessons, and study: observing the city council in action; collecting oral histories from senior citizens; studying the ecology of the local environment; visiting a nearby planetarium; drawing the local architecture; or exploring career options on-site. Any community -- urban or rural, wealthy or poor -- can be a laboratory for learning under the guidance of an effective teacher. Moreover, within all communities there are valuable resources such as other teachers and students, senior citizens, parents, business people, and local organizations that teachers can engage to assist, enhance and supplement their work with students. Teachers need not teach alone.

Teachers also cultivate knowledge about the character of the community and its effects on the school and students. They develop an appreciation of ethnic and linguistic differences, of cultural influences on students' aspirations and expectations, and of the effects of poverty and affluence. Cultural and other discontinuities between home and school frequently can confound teachers' efforts to promote learning. Conversely, the cultural diversity represented in many communities can serve as a powerful resource in teaching about other cultures, in encouraging tolerance and understanding of human differences, and in promoting civic ideals. Accomplished teachers seek to capitalize on these opportunities and to respond productively to students' diverse backgrounds.

There is a balance here. Schools and teachers cannot alleviate all the social problems that they encounter. Yet teachers confront the human condition daily in all its variety, splendor and misery. They must be humane, caring and responsive to students and their problems, while they maintain a focus on their distinctive professional responsibilities.

Conclusion

Accomplished teaching involves making difficult and principled choices, exercising careful judgment and honoring the complex nature of the educational mission. Teachers employ technical knowledge and skill, yet must be ever mindful of teaching's ethical dimensions. The primary mission is to foster the development of skills, dispositions and understanding, while responding thoughtfully to a wide range of human needs and conditions. Teachers owe joint allegiance to the forms and standards of knowledge within and across disciplines and to the students they serve.

They must acquire and employ a repertoire of instructional methods and strategies, yet remain critical and reflective about their practice, drawing lessons from experience. Teachers' professional responsibilities focus on instructing the students in their immediate care, while they participate as well in wider activities within the school and in partnership with parents and the community.

Teaching is often portrayed as an activity that conserves valued knowledge and skills by transmitting them to succeeding generations. It is that and more. Teachers also have the responsibility to question settled structures, practices, and definitions of knowledge; to invent and test new approaches; and, where necessary, to pursue change of organizational arrangements that support instruction. As agents of the public interest in a democracy, teachers through their work contribute to the dialogue about preserving and improving society, and they initiate future citizens into this ongoing public discourse. In the development of its assessment procedures and certification standards, the National Board has sought to represent these ideals faithfully and comprehensively.

Assertions about what teachers should know sometimes conceal inadequacies in the current state of knowledge. In this respect, teaching is not unlike other professions where practitioners confront unavoidable uncertainty in their work. However, the knowledge base for teaching is growing steadily. Professional consensus and research findings have begun to provide authoritative support for knowledge related to many of the tasks, responsibilities and results of teaching. But much remains to be learned.

The National Board draws on existing knowledge in developing its standards but also relies on the professional judgment of accomplished teachers and scholars in designing its assessment procedures. Recognizing that new knowledge about teaching is continually being formulated, the National Board continually reviews its work to reflect new findings and to update its standards and assessments as appropriate.

The National Board also considers the effects of school context on standards for teaching. The very existence of a National Board suggests common standards that prevail across teaching's many settings. However, teaching in an Alaskan village exacts demands different from teaching in Chicago. Teachers in both settings, though, blend and adapt their knowledge of teaching with their knowledge of the community in which they work to ensure effective student learning. For accomplished teachers, the wisdom of practice that they accrue depends on the settings in which they work, the communities they serve, and the students they encounter.

The assessment procedures developed by the National Board take context into account in a variety of ways. This is achieved by the use of assessment formats such as essays, videotaping and reflective

commentaries. The National Board offers National Board Certification to all qualified teachers irrespective of the teaching environments in which they work. But the opportunities available to teachers to acquire and exercise many of the professional capacities and responsibilities endorsed by the National Board vary markedly from community to community. Some schools feature strong professional cultures whose norms support collaboration, innovative teaching, a high degree of collegiality, and participation in a broad array of professional activities. Other schools provide few such opportunities, and some even discourage such activity. To address this tension, the National Board's assessments acknowledge that there are multiple paths to meeting the standards, which take into account the diversity of teaching contexts.

These are the touchstones that guide the development of the National Board's certification standards and assessments. Our view of the responsibilities of the National Board Certified Teacher is deliberately complex and demanding, for this is how we see the work of American professional teachers, who are challenged to create excellence in education for all our nation's youth.

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Overview

Teachers who embark on National Board Certification® should expect some challenge, yet not assume that the entries are beyond their reach. The directions are long in some cases, but they have been written carefully and as clearly as possible.

The portfolio entries were designed to reflect, to the extent possible, activities that teachers engage in naturally during their work. For the most part they are intended to enable teachers to sample from their practice, and to encourage them to reflect on that practice through Written Commentaries. The entries were developed in collaboration with practicing teachers who verified their feasibility in school settings and their value as both assessment entries and vehicles for professional discussion and growth.

The *Overview* includes the following sections:

- The Three Types of Entries
- The Entry Directions
- How Assessments Are Scored

The Three Types of Entries

NBPTS portfolios assess a teacher's performance based on three distinct sources of evidence, which the teacher submits to NBPTS in the form of entries. The sources of evidence are:

- samples of students' work;
- video recordings of classroom practice; and
- documentation of accomplishments outside the classroom.

Under the headings below are summaries of the three entry types that all NBPTS portfolios share.

Entries Based on Student Work Samples

One essential source of evidence about a teacher's practice is student work: what are the students asked to do, how are student responses interpreted by the teacher, and what does the teacher do with the information the student work provides? Because there are many kinds of student work, portfolio entries of this type sample the types of student work that are most important to teachers in each certificate area.

As part of this process, candidates will look for patterns in the student work samples collected.

Note: No student work samples can be taken from a unit or lesson that is featured in either of the other entries. The students chosen should represent different kinds of instructional challenges for you. See the Entry Tracking Form in the *Organizer* for guidance.

Entries Based on Video Recording

There is no better evidence of what a teacher does than actual classroom practice. For this reason, video recordings of practice in varying situations and circumstances are essential evidence of the accomplishments of teachers. Therefore, portfolio entries of this type use video recording to sample a teacher's classroom practice across different concepts during the year, capturing different kinds of instruction and classroom interactions.

As part of this process, each video recording is individually contextualized and situated by the teacher, using a Written Commentary.

Note: The video recordings you make for these two entries must feature different lessons from different units. There must be no overlap between the lessons and units in these two entries or between any of the three classroom-based entries. This prohibition, however, does not apply to the students whose work you feature in the student work-based entry. It is permissible for these students to appear in a video recording.

Each video entry must be accompanied by a photocopy of a government-issued photo ID, such as a driver's license or photo ID card issued to non-drivers by a state, or a military ID. The photo ID should be enlarged to double its actual size, so that both your photo and your name are clearly visible. A sample of a photocopied, government-issued photo ID appears in *Forms & Specs*.

Entries Based on Documented Accomplishments

The third essential source of evidence about a teacher's practice reflects aspects of teaching outside the classroom, such as a teacher's interactions with students' families, with the school and local community, and with colleagues. Portfolio entries of this type center on documenting these kinds of interactions.

Note: A summary of the requirements, materials, and rules for submission for this entry and the other three entries is provided by the Summary of the Portfolio Entries in the *Organizer*.

The Entry Directions

The entire portfolio consists of four separate entries—three classroom-based entries and one entry based on your documented accomplishments. What follows is an outline of the format for each entry, organized according to the section headings that are included in actual entries.

Please note that the directions for the fourth entry, *Documented Accomplishments: Contributions to Student Learning*—while not identical to the format outlined below—use almost all of the same sections and headings.

The Opening Overview

Uses the language of the relevant *Standards* to describe the kinds of standards-based practice each entry is intended to elicit.

What Do I Need To Do?

Summarizes the actual requirements of each entry—what kind of evidence you must submit so that your response is scoreable.

How Will My Response Be Scored?

Presents the scoring criteria that will be used by assessors to judge each candidate's response. Because the scoring criteria indicate the things that matter in each entry, you should ask yourself frequently as you assemble your response if there is strong evidence in your materials of each characteristic that is scored.

Composing My Written Commentary

Presents the detailed questions you must answer about the evidence of your practice in each Written Commentary and describes the sections into which you will organize your answers to these questions. It is not necessary to include the italicized questions within the body of your response.

To help you make decisions about how much to write for the sections of your Written Commentaries, a page length is suggested for each section. These suggested page lengths are provided merely as a guide for you to use as you prepare your Written Commentaries. If you find that you are able to complete a section using fewer pages than the suggested length for that section, you can use the remaining page count to complete another section of the Written Commentary. Keep in mind that your Written Commentaries **must not exceed the maximum total page lengths established**. However, you are not required to submit the maximum number of pages in order for your entries to be scoreable.

Making Good Choices

Gives you concrete advice about ways you can plan your responses and choose your evidence so that your best practice is evident to the assessors who will score your entries. Because a large part of the outcome

of this assessment depends on choices you can control, this section should be read carefully. The advice in this section is based on experiences to date with candidate materials, and offers what has been learned to steer you away from choices that would tend to disadvantage you in scoring.

Making Good Choices: Video Recording or Student Work

Presents the specific requirements for the evidence of your practice that a particular entry requires—either classroom video recording or student work. Read this section carefully and follow the instructions in *Forms & Specs*. Not all of the entries require video submissions. You should not submit video recordings for entries that do not require them.

Making Good Choices: Instructional Materials

Presents the specific requirements for other kinds of evidence about what went on in your classroom on a specific occasion. This section includes information about submitting materials used in a lesson (such as software descriptions, assignments, and worksheets or other instructional handouts), and materials that provide background for a lesson (such as photographs of student work). The kinds of evidence required vary from one entry to another. Each entry contains specific instructions about the required evidence, as well as cover sheets designed for use with that kind of evidence.

Format Specifications

Presents detailed guidelines you will need to follow when preparing the materials that you will submit. This section contains information relating to all submitted components for each particular entry, such as the Written Commentary, student work, video recordings, and instructional materials, as well as specifications regarding issues such as limits on page length, margin size, video recording length, and font.

How Assessments Are Scored

All entries are scored by teachers practicing in the same content area as the assessment they are scoring. The assessors are carefully trained over several days to apply detailed scoring rules. The scoring rules clearly articulate the criteria that are to be applied in the evaluation of candidate responses. These criteria reflect the *Standards* that the entry was designed to measure.

Assessors use a four-level rubric to score each candidate's response, where a Level 3 or Level 4 score represents accomplished teaching practice and a Level 1 or Level 2 score represents less than accomplished practice for that particular entry. The "How Will My Response Be Scored?" section in the entry directions provides the Level 4 criteria that are used by the assessors for that particular entry.

At each of the four levels of the scoring rubric, the same *Standards*-related criteria are applied. However, each level of the scoring rubric differs in the **quality of the evidence** that is expected. For example, if *Knowledge of Students* is a *Standard* measured by an entry, the Level 4 rubric will refer to **clear, consistent, and convincing** evidence of *Knowledge of Students* while the Level 2 rubric will refer to **limited** evidence of the same *Standard*.

One of the fundamental principles underlying the evaluation is that entries are scored only on what candidates are specifically asked to do. For example, if the entry directions specifically ask a candidate to demonstrate how to use assessment in the featured instructional sequence, *Standards* language relevant to use of assessment will be articulated in the "How Will My Response Be Scored?" section and evidence supporting a candidate's use of assessment will be valued by the scoring rubric. Conversely, if an entry does not require a candidate to demonstrate use of assessment, *Standards* language relevant to use of assessment will not appear in the "How Will My Response Be Scored?" section and a candidate's use of assessment will not be valued by the scoring rubric.

Keep in mind that each entry is scored independently of the others. When an entry asks for background or contextual information, be complete, since an assessor for one entry will not see your other entries.

The National Board *Standards* for the *Adolescence and Young Adulthood/Science* certificate area are addressed within the portfolio and assessment center process. Although the portfolio entries address many of the *Standards*, they may not address all of them. *Standards* not addressed by the portfolio will be included in the assessment center portion of the certification process.

When all of your portfolio entries and assessment center exercises are completed and scored, your total weighted scaled score is computed. This is done by applying a set of weights to each of your entry and exercise scores to compute the total weighted scaled score. For the *Adolescence and Young Adulthood/Science* certificate, the weights are set at 16 percent for each of the three classroom-based portfolio entries, 12 percent for the Documented Accomplishments entry, and 6.67 percent for each of the six assessment center exercises. Therefore, the total weighted scaled score is the product of each exercise score multiplied by the weight for that type of exercise. The total weighted scaled score is then compared to 275, the performance standard established by the National Board for Professional Teaching Standards Board of Directors. A candidate whose total weighted scaled score is 275 or greater is recognized as an

accomplished teacher and is awarded National Board Certification. A candidate whose total weighted scaled score does not meet 275 is not yet certified and for the following two years has the opportunity to retake certain portfolio entries or assessment center exercises in order to meet the performance standard of 275.

A candidate does not have to receive Level 3 or Level 4 scores for every entry and exercise. A high score on one may compensate for a lower score elsewhere. Access the Scoring Guides on the NBPTS Web site. More detailed information about scoring is provided on the NBPTS Web site when scores are released.

Guidelines

Read and follow the entry directions carefully. The scoring guidelines that assessors use are inherent in the directions; only by following the directions will you be sure to provide the assessors with adequate information.

If, for example, an entry asks you to provide information about the students in a particular class, be sure to do so because it means you will be evaluated on the *Standard* in your certificate area related to your knowledge of students. Similarly, if the directions specify that you submit a video recording that contains 15 minutes of continuous instruction, do not submit a video of a full 45-minute class. Failure to meet the requirements may make it difficult for assessors to locate evidence, which could impact your score.

Following Directions

There are a few critical rules that you must follow to ensure that your portfolio materials are eligible for scoring. They are as follows:

- You must follow the directions for the Written Commentary that are provided with each entry and respond to each of the topics or questions given with those directions. **Use only Times New Roman 12 point font and double-space all text.** Consult Formatting Written Materials in *Forms & Specs* for guidance about type.
- You must comply with the specific requirements for video recording found in the video recording section of the Format Specifications page for each entry requiring a video. Topics include:
 - General requirements for video recording
 - Length of submissions
 - Editing
- You must focus on different units and different lessons for **each** classroom-based portfolio entry. See the Entry Tracking Form in the *Organizer*.
- On the outside of your classroom-based entry envelopes you must indicate whether you have chosen the Spanish Language Option. Candidates who exercise the Spanish Language Option must check the appropriate box on the entry envelope label or the response will not be scored.
- Your Candidate Release Forms and the Attestation Form must be completed and included in your submission.
- A copy of the Contextual Information Sheet must be completed and included in all four portfolio entry submissions.

Any violation of these rules will render a submission unscorable.

Guidelines includes the following sections:

Naming Persons, Institutions, and Places
Ethics and Collaboration

Naming Persons, Institutions, and Places

In your Contextual Information Sheet and Written Commentaries, you will need to refer to students and possibly to parents, colleagues, and other adults. In these and all materials you submit with your portfolio entries, you must refer to other persons in ways that preserve their anonymity, except as noted below. This means that your written materials, student work samples, and instructional materials should not show both the first and last names of any person. Exceptions include Student Release Forms and Adult Release Forms, which must contain full signatures, but which you do not submit with your portfolio; Verification Forms, which require the full signature of the person who verifies your accomplishments in the Documented Accomplishments entry; and documentation in the Documented Accomplishments entry, which is permitted to contain names under certain conditions. **Follow the instructions regarding names in the Documented Accomplishments entry carefully.**

As much as possible, people and places should be cited in your work without being identified by name to ensure that the scoring of your portfolio is as anonymous as possible. In general, it is better for you to refer to people and places by initials or first names only. Your goal in referring to people or places is to convey to assessors information about your teaching practice in the clearest way possible. It is better to be clear and general when making such references than to use unnatural constructions such as "John Doe University." Below are guidelines on how you should refer to people, institutions, and places in your written work.

In your Written Commentary, student work samples, and instructional materials, if you refer to:

Children or Students

Use first names only. If you choose to feature two students with the same first name, use first names and the first letter of the last names.

Parents or Legal Guardians

Identify these adults by referencing their relationship to the students, for example, "Marie's mother." Parents should receive the same kind of anonymity as students.

Other Teachers, Principals, School Employees, or Administrators

Use "a colleague" or "the principal" if possible. If necessary, refer to the person by first name only. For example, "John, one of our math teachers..."

Your School, School District, or Facility Name

Use the initials of the name, followed by the words that identify the level of the school, and do not identify its location. For example, you would use "JM Middle School," or Sunny Cottage would become "SC School."

Your City, County, or State

Refer to "my city/county/state."

A College or University

Write "a four-year college," "a graduate program," or "a two-year college."

Your Own Name

Be sure to remove your own name from student work with correction fluid, and do not include your own name in your Written Commentaries. If you are quoting a student, use "Joey then said, 'Mrs. S., why do we need to...,' " or something similar.

Ethics and Collaboration

To read and print important information regarding adherence to ethical behavior that is expected of all National Board Certification candidates, access the National Board's Ethics page. **The National Board does not tolerate cheating or confidentiality breaches of any type and has established a policy that outlines the consequences of candidate misconduct. All candidates are strongly advised to become familiar with this policy. Candidates are also urged to review the policy on Denial or Revocation of Certification.**

Collaboration with your colleagues is a valued part of the process—engage them in professional discussions about the NBPTS Standards, have them help you video record, watch and analyze the video recordings together, have them read and comment on your analyses and on the student work you have chosen. **However**, all of the work you submit as part of your response to **any portfolio entry must be yours and yours alone**. This means that your written analyses, the student work you submit, and your video recordings must all feature teaching that **you** did and work that **you** oversaw.

If you work as a member of a team of teachers, you have an excellent opportunity to collaborate with other members of the team who are going through the assessment. However, if you work in a team teaching setting, you should review your responses carefully (perhaps with one or more of your colleagues) to ensure that your responses all feature teaching that you did and work that you oversaw.

It is mandatory that different video segments, separate and different analyses, and separate and different student work samples be submitted by **each** candidate, regardless of the candidate's teaching situation.

If you submit materials identical with those of another candidate, **both of you will be disqualified from the certification process**, and the organization or entity funding your certification assessment fee, if any, will be notified of this disqualification and the reason.

Please immediately report breaches of security, misconduct and/or unethical practice by calling NBPTS at 1-800-22TEACHSM and selecting option 3.

Thank you for helping to protect the integrity of National Board Certification for the teaching profession.

Additional Considerations

The information in this section does not apply to all candidates. This section describes the Spanish Language Option, which candidates who deliver instruction in both Spanish and English may wish to avail themselves of; rules for submitting work that includes languages other than English and Spanish; and guidelines for requesting accommodations for disability.

Spanish Language Option

The Spanish Language Option allows candidates to submit student work and video recordings in Spanish. The Spanish Language Option provides an opportunity for generalists, content area teachers, and school counselors who have a large number of Spanish-speaking students in their classes and who therefore deliver instruction in both English and Spanish to become National Board Certified within their content area. This option is available to candidates in all certificate areas except the *English Language Arts* and the *World Languages Other than English* certificates. (Note that *Early and Middle Childhood/Literacy: Reading-Language Arts* candidates may elect to use this option.)

Candidates who exercise the Spanish Language Option complete the same portfolio entries and assessment center exercises as their certificate-area colleagues; however, these candidates may submit student work and video recordings for the portfolio that are in Spanish accompanied by an English language translation. The Written Commentary accompanying each portfolio entry and the responses to the assessment center exercises, however, **must be in English**. A written English translation of any written student work and/or a written transcription in English of any video evidence submitted in Spanish is required in order for the responses to be scored. Candidates must also check the appropriate box on the entry envelope label indicating that evidence in Spanish is enclosed, or the response will not be scored. English language translations must meet all format specifications for written portfolio materials and must include the candidate's ID number, the entry title, and any necessary student identifiers in English. Pages containing translations do not count against the page totals specified in the entry directions.

Languages Other Than English and Spanish

We recognize that languages other than English and Spanish are frequently used in the classroom. Therefore, student work samples and video recordings may include brief expressions or phrases in a language other than English or Spanish. The inclusion of such expressions or phrases must be limited since assessors will not have fluency in languages other than English or Spanish. If expressions or phrases in languages other than English and/or Spanish are included, candidates should include brief explanations in the Written Commentary that accompanies each portfolio response. Candidate responses containing student work samples and/or video recordings that require assessors to have fluency in a language other than English or Spanish, or which require significant explanations or translations, cannot be scored in this administration.

If the majority of your instruction takes place with students for whom English is a new language, the appropriate NBPTS certificate may be either the *Early and Middle Childhood/English as a New Language* (EMC/ENL) certificate or the *Early Adolescence through Young Adulthood/English as a New Language* (EAYA/ENL) certificate. To help you make the decision regarding whether to pursue

certification in one of the available certificate areas, you should discuss your teaching situation with professional colleagues, your school faculty, a National Board Certified Teacher[®], your faculty support group, or a state-level official who is involved with a fee subsidy program.

Nonstandard Accommodations

If you believe you need accommodation because of a disability, you should submit a request for accommodation as soon as possible. If you have not already received a form for this purpose, you can access the National Board's Nonstandard Testing Accommodations policy from on the NBPTS Web site, or you may call 1-800-22TEACH to request a form.

If the accommodations you need are for the portfolio phase of the assessment process, such as a large print version of the portfolio, please submit the accommodations form (along with the required documentation of your disability) immediately, if you have not already done so.

If the accommodations you need are for the assessment center phase of the process, please note that it takes approximately six weeks from the date your accommodations form and documentation are received to process the request and have the accommodations available at the assessment center. Once accommodations have been approved, you will receive notification of the accommodations with instructions for making your appointment at the assessment center. You will be unable to make an appointment until you receive this confirmation.

The National Board's Nonstandard Testing Accommodations policy and forms are in Adobe® Acrobat® PDF format. To read these documents, you need to install Acrobat® Reader software on your computer. You can download the free software by following the instructions provided by Adobe Systems.

Specialty Area Selection

Candidates who are pursuing certification in the following certificate areas must declare a specialty prior to attending the assessment center:

- Adolescence and Young Adulthood/Science
- Early Childhood through Young Adulthood/Exceptional Needs Specialist
- Early Adolescence through Young Adulthood/Career and Technical Education
- Early and Middle Childhood/English as a New Language
- Early Adolescence through Young Adulthood/English as a New Language*
- Early and Middle Childhood/Music
- Early Adolescence through Young Adulthood/Music
- Early Adolescence through Young Adulthood/World Languages Other than English

If you are a candidate for one of these certificate areas, and did not indicate your specialty area on your Candidate Application, you should call 1-800-22TEACH (1-800-228-3224) immediately to provide this information. If you do not notify NBPTS of your declaration, you will not be able to make an appointment for the assessment center. If you are unsure which specialty within your certificate area best fits your teaching situation, you should refer to the appropriate *Standards* for the best description of specialty areas practice.

*If you select Path 1, *Adolescence and Young Adulthood/Science*, you will also need to select from the specialty areas available under *Adolescence and Young Adulthood/Science*.

Verification of Eligibility

If you have not already done so, complete and return the Eligibility Verification Forms. Candidates for National Board Certification must meet the following employment and education requirements prior to collecting evidence for any of the portfolio entries.

You must:

- possess a baccalaureate degree from an accredited institution. *(If you hold a degree awarded by an institution outside the United States, there are provisions. Please access the link below and refer to the Eligibility Verification Forms for details.)*
- have completed three years of successful teaching (or have completed three years successfully serving as a school counselor if applying for the ECYA/School Counseling certificate) in one or more early childhood, elementary, middle, or secondary schools. *(Teachers or counselors with students who are over the age of 18 years must be teaching or counseling students at the pre-K–12 level and in pre-K–12 settings. If you are teaching students over the age of 18, there are provisions.)*
- have met the teacher licensure requirements established by the state in which you teach and hold that valid teaching license (or meet the licensure requirements for a "school counselor" as established by the state in which you were employed, and hold that valid license if applying for the ECYA/SC certificate) for each of the three years of employment you verify. If you are employed as a teacher or school counselor at the time of your application, you must provide evidence that you hold a valid state license.

Please go to the link above for explicit instructions about filling out these forms. **You must do this now** because completion of the forms requires that you send them to your employer and in some cases to the educational institution from which you received your baccalaureate degree.

Eligibility Verification Forms must be returned to NBPTS by the deadline given in the National Board Certification Assessment Calendar. If you do not submit these completed forms you will not be able to take the assessment center exercises, you will not have your portfolio scored, and you will not receive a score report. You are responsible for confirming receipt of these forms by NBPTS. After submitting your forms, you can check the status of your eligibility online by accessing the National Board Registration & Information Center (NBRIC).

If you are not sure whether you meet the eligibility prerequisites for National Board candidacy, more complete information can be found on the NBPTS Candidate Guide Web site.

Eligibility forms are not required for *Take One!* portfolio entry submissions.

Take One! Overview

Take One![™] has been specifically designed to offer educators an opportunity to experience the powerful professional development attributes of the assessment program that leads to National Board Certification[®].

Central to effectively completing *Take One!*—or any other National Board portfolio entry—is the collection of clear, consistent, and convincing evidence of your teaching practices that help your students learn. The pieces of your portfolio entry follow the Architecture of Accomplished Teaching, which is a metaphor for what accomplished teachers do in the classroom. You begin by demonstrating that you know and understand your students and their learning needs, then show that you select content standards and learning goals that are appropriate and meaningful for those students. Next, you demonstrate your ability to plan a lesson that is closely related to those standards and goals, and is tailored to your students' learning needs. In addition, you compile evidence that your classroom environment encourages student learning and you video record your implementation of the lesson. Finally, you analyze in writing what took place during your teaching, and reflect on how what you learned about yourself as a teacher and your practice will influence both your future teaching and your students' learning.

Everyone who purchases *Take One!* in this certificate area will be completing Entry 2: Active Scientific Inquiry as their portfolio entry.

Before You Begin

Before beginning *Take One!*, one of your most important tasks is to read the NBPTS Standards for your particular certificate area, with a goal of understanding how the Standards might be reflected in your actual day-to-day teaching practice. All NBPTS Standards are based on the Five Core Propositions that first appeared in the National Board's policy statement What Teachers Should Know and Be Able to Do.

As part of *Take One!*, you will be asked to relate what the NBPTS Standards mean in the context of your curriculum and classroom. You will be asked to interpret and apply the Standards in terms of your own students and situation, and integrate them into your practice.

Although it is important to review all of the NBPTS Standards, pay particular attention to those Standards that serve as the basis for your *Take One!* portfolio entry. You will find these Standards noted in abbreviated form at the beginning of your portfolio entry instructions. Make sure that you carefully read each of these in their entirety.

***Take One!* instructions include the following sections:**

- Suggestions for Planning Your *Take One!* Portfolio Entry
- Take One!* Portfolio Entry Instructions
- Submitting Your *Take One!* Portfolio Entry
- Score Reporting for *Take One!*

Resources

Suggestions for Planning Your *Take One!* Portfolio Entry

Review the "Get Started" Section

Read the information provided in the Get Started and Intro sections of these portfolio instructions. Pay particular attention to "Studying the Standards" and "Writing About Teaching" in Get Started.

Studying the Standards contains tips for understanding the NBPTS Standards. It is important to focus on the Standards for your respective certificate area as you work on your portfolio entry.

Writing About Teaching includes information about some of the different types of writing you are asked to do in the Written Commentary, in particular the need to *describe, analyze, explain* and *reflect*.

Be certain the writing in your Written Commentary clearly expresses any information necessary to enable assessors to understand what you are trying to convey about your teaching. Keep in mind that, for analysis or interpretation questions, simply making a statement about the outcome of a teaching situation (e.g., "The lesson was a success") is *not* an adequate response. Assessors need to know *why* you made the interpretations you present. Be sure to present evidence supporting your conclusions when answering these types of questions.

Review the Portfolio Entry Instructions

Portfolio entry instructions include the NBPTS Standards that are the foundation for the portfolio entry, suggestions for planning your response and choosing evidence of your teaching practice, questions that must be answered as part of your Written Commentary, and an explanation of scoring criteria for your portfolio entry. Everyone who purchases *Take One!* in this certificate area will be completing Entry 2: Active Scientific Inquiry as their portfolio entry.

Review "Making Good Choices" in the Portfolio Entry Instructions

Direct evidence of your teaching is critical to your portfolio entry. Video-recorded lessons enable assessors to see and hear exactly what occurs in your classroom, how you interact with students and how students interact with each other in the classroom environment you have created. Keep in mind that the assessment of your portfolio entry is based on the evidence you provide of your teaching practice, not the level of your students' performance. For guidance on selecting your direct evidence, see the "Making Good Choices" section of the portfolio entry instructions.

Review the Scoring Rubrics

For specific information about how the *Take One!* portfolio entry is scored for your certificate area, review "How Will My Response Be Scored?" in the portfolio entry instructions. Also read the rubrics provided in the Scoring Guide for your certificate area. There are four levels of performance:

- Level 4 performances provide clear, consistent, and convincing evidence of accomplished teaching.
- Level 3 performances provide clear evidence of accomplished teaching.
- Level 2 performances provide limited evidence of accomplished teaching.
- Level 1 performances provide little or no evidence of accomplished teaching.

Resources

Submitting Your *Take One!* Portfolio Entry

Cover Sheets and Forms

Everyone who submits a *Take One!* portfolio entry must complete and submit the Entry 2 Forms and the Forms Envelope forms. Description of the cover sheets and forms can be found in Forms & Specs.

The Attestation Form states that you have acquired all necessary releases on the Student and Adult Release Forms for your portfolio entry. You must submit this form with your *Take One!* portfolio entry as instructed. ***If you do not submit a signed Attestation Form, your Take One! portfolio entry cannot be scored.***

There are no eligibility prerequisites for a *Take One!* portfolio entry. Therefore, **NO eligibility forms are required for *Take One!* portfolio entry submissions.**

Submitting Your Portfolio Entry

Review the Pack & Ship section for general requirements for submitting your portfolio entry materials. The submission instructions for the *Take One!* portfolio entry are the same as for all other portfolio submittals.

You may verify online that your *Take One!* submission was received by NBPTS by accessing the My Profile section of the National Board Registration and Information Center (NBRIC). Upon receipt, your box will be opened; your *Take One!* portfolio entry will be recorded; and NBPTS will identify whether or not the correct forms were submitted. Your *Take One!* portfolio entry will then be prepared for scoring and shipped to scoring sites, where it will be scored by trained assessors who are classroom teachers and who will be unable to distinguish a *Take One!* portfolio entry from other portfolio entries submitted for scoring by candidates in the assessment program—thereby assuring a fair, reliable and psychometrically sound score.

In order for NBPTS assessors to render scores, it is critical that you include all required components in the portfolio entry you submit. NBPTS does not notify candidates of missing components. NBPTS cannot accept any components, additions, or substitutions to the portfolio entry after the *Take One!* due date.

Please review your portfolio entry materials prior to submitting them to NBPTS to ensure they are complete. If a critical component (e.g., Written Commentary, video recording, student work samples) is missing from the portfolio entry, the portfolio entry will be unscorable.

Please refer to the Entry 2 Final Inventory Form to aid in the organization and assembly of your completed portfolio entry.

Score Reporting for *Take One!*

The scoring of all *Take One!* performances occurs simultaneously with scoring for the NBPTS assessment program each summer. To ensure fairness, assessors are unable to distinguish *Take One!* performances from any other performance submitted by candidates as part of the NBPTS certification program. All score reports are processed together in order to reach psychometrically sound results. These protocols help ensure a fair and accurate scoring process.

NBPTS anticipates that score results for *Take One!* portfolio entries will be provided on or before December 31, at the same time that score results are reported for candidates in the NBPTS certification program.

Scores are released online via the NBPTS My Profile section of the National Board Registration and Information Center (NBRIC). This is a password-protected, private and secure Web page where you can access your personal *Take One!* information. You are able to track the receipt of your materials and fee payments and access other important information regarding the *Take One!* program. Everyone is encouraged to keep their e-mail address up-to-date on this Web page, in order to receive announcements and alerts in a timely fashion.

Retake Instructions Introduction

We commend you for continuing your pursuit of National Board Certification. The instructions below are designed to help you organize your efforts as you plan and prepare your retake portfolio entries.

NBPTS anticipates that candidates will receive their score results for retake portfolio entries and/or assessment center exercises on or before December 31, at the same time that score results are reported for first-time candidates. Although it may seem possible for retake candidates to receive their scores earlier than first-time candidates because retake candidates may not be submitting a complete portfolio, keep in mind that the scoring of all candidate performances occurs at the same time each summer. To ensure fairness, assessors are unable to distinguish a retake candidate's performance from a first-time candidate's performance. All score reports are processed together in order to reach psychometrically sound results. These protocols help ensure a fair and accurate scoring process.

Retake instructions include the following sections:

- Requirements for Your Retake Portfolio Entry
- Suggestions for Planning Your Retake Portfolio Entry
- Submitting Your Retake Portfolio Entry

Resources

Requirements for Your Retake Portfolio Entry

The work you submit for your retake portfolio entry **must be new**. You may not submit identical or amended versions of any part of your original portfolio entry, except as noted below. Each retake portfolio entry is compared in its entirety to your corresponding original portfolio entry. If a retake portfolio entry is found to contain identical or amended versions of materials from an original portfolio entry, it will not be scored. As a result, the retake fee will be forfeited and the retake portfolio entry will be designated "NS" ("Not Scoreable") on the candidate's score profile.

Much of the contextual information in your Written Commentary will likely remain the same if you are teaching the same grade-level students at the same school. You will not be disadvantaged by this at scoring. Auditors recognize that this information is likely to remain the same.

Classroom-based Retake Portfolio Entries

The Written Commentary, video recording, and/or student work samples that you submit **must be new**. If you are thinking about using the same lesson for your retake portfolio entry as you used for your original portfolio entry, you should recognize that the lesson will likely promote learning goals and objectives that are similar to those in your original portfolio entry, which may result in a retake portfolio entry that is not appreciably different from your original portfolio entry. Therefore, before you choose to use the same lesson for your retake portfolio entry, you should carefully consider whether the lesson will allow you to submit a Written Commentary that contains analyses and reflections that are appreciably different from those in your original Written Commentary and whether the lesson is likely to yield a video recording and/or student work samples that will provide you sufficient opportunity to show evidence of the Standards in your teaching practice.

Note: If you use the same lesson, you will not be disadvantaged at scoring by the fact that many of the instructional materials you submit will likely remain the same if you are teaching the same grade-level students at the same school. Auditors recognize that these materials are likely to remain the same.

Documented Accomplishments Retake Portfolio Entries

The evidence that you submit for the area of accomplishment relating to your work with students' families and the community must be new, and it must come from the **current year**, i.e., the twelve months preceding your portfolio due date. The *Reflective Summary* that you submit also must be new. However, the evidence that you submit for the two areas of accomplishment that permit you to present documentation from the last five years may be resubmissions from your original entry. If you choose to resubmit documentation, keep in mind that during scoring, assessors do not have access to the documentation in your original portfolio entry. Therefore, you must submit new copies of the documentation that you previously submitted for this portfolio entry.

Note: Retake candidates are strongly urged to re-evaluate their accomplishments **in all three areas required for the Documented Accomplishments Entry** and focus their descriptions and analyses on the

substance and significance of these accomplishments as they impact student learning, rather than simply increasing the number of accomplishments they submit.

Resources

Suggestions for Planning Your Retake Portfolio Entry

In order to raise your score, you need to give serious thought to the reasons your original portfolio entry did not meet the performance standard of 2.75. This section contains suggestions to help you identify ways you might improve your performance.

Review the Scoring Rubrics

Read the rubrics for your retake portfolio entry, paying particular attention to the rubric for the performance level most closely matching the score that you obtained. Each portfolio entry's instructions include a section called "How Will My Response Be Scored?" that provides the level 4 rubric for that entry. In addition, rubrics for all portfolio entries for your certificate area are provided in the Scoring Guide for your certificate area. For example, if your score on your retake portfolio entry was 2.25, you should pay particular attention to the rubric for the Level 2 performance. After reading the rubrics, examine your copy of your original portfolio entry. (NBPTS does not provide copies of entry submissions to candidates.) Revisit the Standards and identify where your original portfolio entry could have been strengthened. If possible, ask a colleague or mentor who is familiar with the NBPTS Standards for constructive criticism of your original portfolio entry.

As you think about ways that you could have strengthened your original portfolio entry and reflect on areas for improvement, ask yourself these questions:

- Did your original portfolio entry, taken as a whole, accurately represent your teaching?
- Were there important aspects of your teaching that your original portfolio entry did not capture?
- Could you have selected student work samples or video recording opportunities that would better fit the guidelines given in the portfolio entry instructions?
- Did you address each of the questions listed in the "Composing My Written Commentary" section of the portfolio entry instructions?
- As you review the Level 4 rubric for your portfolio entry, how could you have provided clear, consistent, and convincing evidence in your portfolio response that you have incorporated the Standards in your teaching practice?

After you have answered these questions, begin planning what you could do differently for your retake portfolio entry.

Review Get Started

It may be useful for you to reread the Get Started section. Pay particular attention to "Studying the Standards" and "Writing About Teaching" in *Get Started*.

Studying the Standards contains tips for understanding the Standards. It is important for all candidates to focus on the Standards for the certificate area chosen as they work on their portfolio entries. The Standards lay the foundation of accomplished teaching for the certificate.

Writing About Teaching includes information about some of the different types of writing you are asked to do in the Written Commentary, in particular the need to describe, analyze, explain, and reflect. After you read "Writing About Teaching", review your original Written Commentary for the portfolio entry, especially your responses to the questions posed in the "Composing My Written Commentary" section of the portfolio entry instructions. In what ways could you improve your original responses to these questions? In what ways might your original responses be incomplete or unclear to someone who understands your teaching only by the work you submitted in this portfolio entry? If you have trouble answering these questions, you might ask a colleague or mentor for help.

When you are reviewing your original Written Commentary, remember that all writers possess background knowledge readers do not know unless the writer includes such information in his or her writing. Be certain the writing in your new Written Commentary clearly expresses any information necessary to enable assessors to understand what you are trying to convey about your teaching. Keep in mind that, for analysis or interpretation questions, simply making a statement about the outcome of a teaching situation (e.g., "The lesson was a success") is *not* an adequate response. Assessors need to know *why* you made the interpretations you present. Be sure to present evidence supporting your conclusions when answering these types of questions.

Review "Making Good Choices" in the Portfolio Entry Instructions

Direct evidence of your teaching (student work samples or video recorded lessons) is critical to your portfolio entry. Student work samples that you have annotated provide assessors with evidence of your ability to pose meaningful assignments that elicit student understandings, reveal possible misunderstandings and offer constructive feedback to your students. Video-recorded lessons enable assessors to see and hear exactly what occurs in your classroom and how you interact with students and how students interact with each other in the classroom environment you have created. Keep in mind that the assessment of your portfolio entry is based on the evidence you provide of your teaching practice, not the level of your students' performance. For guidance on selecting your direct evidence, see the "Making Good Choices" section of the portfolio entry instructions.

Submitting Your Retake Portfolio Entry

Review the Pack & Ship section for general requirements for submitting your entry materials. The instructions for retake submissions are the same as for original portfolio submittals.

You will be notified when your submission is received by NBPTS. Upon receipt, your box will be opened, retake portfolio entries will be recorded, and NBPTS will identify whether the correct forms were submitted. Retake portfolio entries will then be prepared for scoring and shipped to scoring sites.

In order for NBPTS assessors to render scores, it is critical that you include all required components in each retake portfolio entry you submit. NBPTS does not notify candidates of missing components. NBPTS cannot accept any components, additions, or substitutions to any portfolio entry after the portfolio due date. **Materials received after the due date will not be scored.**

Please review your portfolio materials prior to submitting them to NBPTS to ensure they are complete. If a critical component (e.g., Written Commentary, video recording, student work samples) is missing from a retake portfolio entry, the portfolio entry will be unscorable. If this happens, your most recent score on that portfolio entry will remain the same, except in the event of a disqualification or other special circumstance. You will have in effect missed one retake opportunity. If you are in your last year of eligibility, you will not be able to retake portfolio entries at a later date.

An Attestation Form is provided in the Forms & Specs section. This form states that you have acquired all necessary releases on the Student and Adult Release Forms for your retake portfolio entry. You must submit the attestation form with your retake portfolio entry as instructed. ***If you do not submit a signed Attestation Form, your retake portfolio entry cannot be scored.***

What to Do First

In general, it is important for candidates to approach the portfolio systematically and to remember the following points:

- Reading and studying of the *Standards* is an essential first step.
- Reading through all of the entry directions first will make the creation of your portfolio a more efficient process.
- Formulating a plan for responding to all of the portfolio entry directions before beginning to respond to any single entry makes success much more likely.

For candidates who are beginning the portfolio process, it is important to focus on the *Standards* for the certificate area chosen and then achieve an understanding of the portfolio process and the nature of the evidence this portfolio asks candidates to gather.

The information provided in *Get Started* is meant to help you prepare for completing your portfolio. In this section, you will find tips and practice activities for studying the *Standards*, writing about teaching, and video recording. Completing the practice activities will help you become more familiar and comfortable with the tasks you will be required to complete for each entry.

Reading the *Standards* and "Major Ideas in Science" is recommended before you move onto the writing and video recording guides. By becoming familiar with the *Standards* and "Major Ideas in Science" you will be prepared to apply what you've read to the practice activities. Links have been provided below for the *Standards* and "Major Ideas in Science."

Studying the Standards

One of your most important initial tasks is to study thoroughly and carefully what the *Standards* articulate and to understand how they might be reflected in actual day-to-day practice. All NBPTS *Standards* are based on the Five Core Propositions that first appeared in the National Board's policy statement *What Teachers Should Know and Be Able To Do*. These propositions define the "knowledge, skills, dispositions, and commitments" of teaching:

- Teachers are committed to students and their learning.
- Teachers know the subjects they teach and how to teach those subjects to students.
- Teachers are responsible for managing and monitoring student learning.
- Teachers think systematically about their practice and learn from experience.
- Teachers are members of learning communities.

Studying the Standards includes the following sections:

Tips for Studying the Standards
Things to Keep in Mind

Tips for Studying the Standards

1. Look carefully at the Five Core Propositions that outline what teachers should know and be able to do. Jot down at least one specific act or activity that you and/or your colleagues do regularly that illustrates each proposition.
2. For each *Standard* in the set of *Standards* for your content area/developmental level, ask yourself the following questions:
 - What would an accomplished teacher know and be able to do with respect to this *Standard*? Be very specific.
 - How might an accomplished teacher demonstrate proficiency with respect to this *Standard*? How could such a teacher prove to you that he or she was meeting this *Standard*?

Things to Keep in Mind

The following paragraphs contain reminders of some issues that will be helpful for you to remember throughout the process of completing your portfolio entries. It is important for all candidates going through the assessment process to focus on the *Standards* for the certificate area chosen. The *Standards* lay the foundation for the certificate.

Note that the purpose of the Written Commentary is to provide you with an opportunity to give details about the context in which you teach and your instructional practice. The Written Commentary is an essential window into how you analyze and reflect on your practice—it is your opportunity to reveal how and what you think about your work.

The direct evidence of your teaching that you present (student work samples or video recorded lessons) is critical to your entry. Student work samples that you have annotated provide assessors with evidence of your ability to pose meaningful assignments that elicit student understandings (and may possibly reveal misunderstandings) and of your ability to offer constructive feedback to your students. Video recorded lessons enable assessors to see and hear exactly what occurs in your classroom: how you interact with students and how students interact with each other in the classroom environment you have created.

The assessment of your entire entry (Written Commentary, student work samples or video recording, and instructional materials) is based on the evidence that you provide of your teaching practice, not the level of your students' performance. For guidance on selecting your evidence, see the section "Making Good Choices" in each entry.

As you work on completing your portfolio entries, you should reflect on ways to improve your responses by asking yourself these questions:

- Does the entry, taken as a whole, accurately represent my teaching?
- Are there important aspects of my teaching that the entry does not capture?
- Could I select student work samples or video recording opportunities that would better fit the guidelines given in the portfolio instructions?
- Do I address each of the questions listed in the Written Commentary instructions?
- In what ways could I improve my responses to the questions in the entry directions?
- In what ways might my responses be incomplete or unclear to someone who understands my teaching only by the work I am submitting in this entry?

If you have trouble answering these questions, a colleague or mentor may be able to help you.

Writing About Teaching

Throughout the directions for the portfolio entries in the NBPTS certification assessment, you are encouraged to **describe**, **analyze**, and **reflect**. Much of the evaluation of the work you select as representative of your practice for the purposes of the assessment depends on your ability to provide insight into not just "what is happening" in your classroom, but the rationale for those events and processes. You do this, in the assessment, through the individual analyses submitted with each sample of instruction. For example, bilingual teachers should describe, analyze, and reflect upon the developing bilingual capabilities of their students as part of the circumstances of their teaching.

In the documents that accompany your samples, you are asked to describe your work, analyze it, and reflect on it. Because it is not always a part of the daily practice of teaching, some teachers may have little practice in such description, analysis, and reflection. Therefore, before you begin the assessment itself, it may be helpful to gain some practice in this kind of thinking and writing.

It is essential to understand that your Written Commentary about your teaching is the final visible result of a great deal of less visible labor. That labor is the kind of work that the optional practice activities in these preparation materials are designed to help you complete. Although you will not submit the practice activities provided in this section, we encourage you to use them to familiarize yourself with the kinds of thought and writing that are required in the portfolio entries. In addition, writing examples and suggestions are provided in this section to help you present a clearer picture of your practice to assessors.

Thinking analytically about teaching is complicated because teaching itself is complicated. The questions we have provided to assist you in getting beneath the surface of the daily details of your teaching are intended to help you begin the work of analysis. Systematic and probing questions about **why**, **how**, and **so what** are the key elements in analyzing your practice and beginning to reflect on it.

It is important to remember that the only information available to assessors is what you provide in your video recordings, student work samples, instructional materials, and Written Commentary. This means that **your written work is your main vehicle for communication with assessors**. Regardless of the strength of the evidence that you present in each portfolio entry, a crucial element in your Written Commentary is your analysis of what happened in your featured teaching. This means that you must present evidence to assessors and demonstrate to them that you understood this information **and** used it appropriately in your teaching.

Thus, this brief guide to writing about teaching is really a guide to the summary activity that is preceded by all of the hard work of thinking, talking, discussing, prewriting, and rethinking that the preparation activities are designed to help you do.

Writing About Teaching includes the following sections:

- Description, Analysis, and Reflection
- Writing Examples for Description, Analysis, and Reflection
- Reviewing Your Writing
- Analysis Practice

Description, Analysis, and Reflection

There are essential differences among descriptive, analytical, and reflective writing. As you prepare your Written Commentary, you need to keep these differences in mind. The directions given in the assessment materials will call for each of these kinds of writing. An appropriate response to these directions is essential to a complete presentation of your work.

The following sections provide detailed descriptions of descriptive, analytical, and reflective writing.

Description

Description: A retelling of what happened in a classroom situation. This kind of writing is meant to "set the scene" for assessors. Your description should be logically ordered and detailed enough to allow assessors to have a basic sense of your classroom situation so that they can understand what you are conveying in your Written Commentary.

When you are asked to describe, be certain that your response meets these criteria:

- accurate and precise enumeration and/or explanation of critical features;
- clear and logical ordering of the elements or features of the event, person, concept, or strategy described; and
- inclusion of **all** features or elements that would allow an outsider to **see as you see** whatever is described.

Description is called for when the prompt uses verbs like **state**, **list**, or **describe**, or asks **what** or **which** as the opening interrogatory words. You want to be sure that your descriptions are clear and detailed enough to allow someone who is not familiar with your teaching to visualize and understand what you are describing.

Analysis and Reflection

Analysis: Analysis deals with reasons, motives, and interpretation and is grounded in the concrete evidence provided by the materials you submit. Analytic writing shows assessors the thought processes that you used to arrive at the conclusions you made about a teaching situation. Analysis demonstrates the significance of the evidence you submit.

Reflection: A thought process that occurs after a teaching situation. This is the thinking that allows you to make decisions about how you would approach similar situations in the future. You could decide to do something the same way, differently, or not at all. Although reflective thought may occur in many places, the "Reflection" section of your Written Commentary is where you must show assessors how you use what you learn from teaching experiences to inform and improve your practice in the future.

"Analysis" and "Reflection" overlap, though they are not identical. "Analysis" involves interpretation and examination of **why** the elements or events described are the way they are. "Reflection," a particular kind of analysis, always suggests self-analysis, or retrospective consideration of one's practice, in the terms of this assessment. When you are asked to analyze or reflect, be certain that your response meets these criteria:

- The subject of the analysis is available to the reader (e.g., the student work samples, the video recording).
- The focus of your writing is not on **what** (which is descriptive) but rather on **why** (which is **analytical** and **reflective**).

For example, if you are asked to analyze the success of a particular lesson or some specific teaching, do **not** explain what happened. This is description. Moreover, simply stating a conclusion ("The lesson was a success") or saying that you observed the fulfillment of your learning goals ("Students gained a better understanding of multiculturalism in our society") without giving evidence or examples to support the statement is **not** analysis. Assessors need to be aware of specific details about why you interpreted the results of a lesson the way that you did. You also need to explain what **interpretation** you make of what happened, your sense of **why** it happened that way, and your understanding of what should come next. You should back up your conclusions with specific evidence or examples that make your point clear to the assessor.

Analysis deals with reasons, motives, and interpretation. All of these are grounded in the concrete evidence provided by your work sample. But the work sample cannot give an assessor your understanding and interpretation of the significance of what you have submitted as samples of your practice. Only your analysis can do this. And your work sample cannot tell an assessor what you have inferred about your practice from what he or she sees—only your reflection can give an assessor that information.

Analysis is called for when a question in the Written Commentary asks **how**, **why**, or in **what way[s]**. When you are asked to identify a particularly successful moment in a sample of teaching and tell us why you regard it as successful, you must analyze. When you are asked for a rationale, you must analyze.

When you are asked what student performance suggests about your teaching, you are being asked to analyze and interpret. This means that you are to use the evidence of student work to explain and illustrate your practice and also to use your practice to explain and provide a context for the student work. Ask yourself:

- What did my students know before this teaching experience?
- What did my students learn because of this teaching experience?
- What did I know about my students and their knowledge before this teaching experience?
- What did I learn about my students and my practice because of this teaching experience?

When you are asked what you would do differently, you are reflecting on and analyzing your practice.

Writing Examples for Description, Analysis, and Reflection

This section presents three examples of writing that a teacher might compose for a Written Commentary. The examples represent different ways a teacher might respond to the learning goals/requirements and *Standards* of a hypothetical portfolio entry (see "Sample Entry for Writing Examples 1, 2, and 3," below). You should read the sample entry first, and then the three writing examples below.

Note: The three writing examples do not represent actual candidate responses, and are not intended to be indicative of Level 3 or Level 4 writing or performance. They also do not represent the only acceptable activities and teaching practices that may be submitted in your portfolio entries. Their only purpose is to illustrate some of the differences between descriptive, analytical, and reflective writing. Also note that the "Sample Entry for Writing Examples 1, 2, and 3" may not reflect the actual requirements and *Standards* for your certificate area. **The Writing Examples are in Adobe® Acrobat® PDF format. To read these documents, you need to install Acrobat® Reader software on your computer. You can download the free software by following the instructions provided by Adobe Systems.**

Sample Entry for Writing Examples 1, 2, and 3

Learning Goals/Requirements: Students will understand the function of the family unit from varied perspectives: its function for the family itself, its role as part of a culture, and as a part of human history. If applicable, students will learn and apply new vocabulary in English that pertains to the family and all subsequent discussion.

Standards

- I. *Knowledge of Students*
- II. *Respect for Diversity*
- III. *Instructional Resources*

- IX. *Families and Community*
- X. *Reflection & Growth*

Example 1

Description	{ There are 32 students in my class—29 students of various Hispanic backgrounds, and three Vietnamese students. The class is a “sheltered” science class—all of my students are speakers of English as a Second Language. My students range in age from 13 to 17. Their academic and developmental abilities also vary widely, from Tomás, who is barely literate in his first language, to Juan, who is above grade level. Many of my students come from single parent homes and/or homes where drugs or alcohol interfere with the family structure. Five students have children who stay in the school’s nursery during the day; others have responsibility for siblings. }
Analysis	{ My students bring challenges to the classroom, so I design my lessons in such a way that it is accessible and applicable to their lives, as well as flexible enough to be appropriate for the wide range of learners. }
Description	{ The videotaped lesson was part of a unit that had the overarching goal of examining major body systems and their functions, i.e., skeletal system, respiratory system, etc. I approached this goal through teaching basic first aid, combining TV footage of accident cases with first-aid equipment borrowed from the local Red Cross, and a mini-lesson on each body system as it related to a particular accident case. Since many of my students cared for siblings, it seemed }
Analysis	{ appropriate to teach life skills as part of life science. }
Description	{ In the selected video segment, we began by watching a clip of a popular TV drama show, showing footage of an ambulance squad responding to 911 calls. We watched the clip several times on the classroom TV, always stopping the scene right before the paramedics began to treat the individual. We then discussed the body systems affected. In this instance a child was choking on a small toy. }
	{ I guided students to examine what they knew about the body system affected (based on previous lessons and in-class reading). I used their interest to extend their understanding of the respiratory system. I encouraged students to take notes using handouts with partial outlines. I was able to unobtrusively give tailored hand- }

Example 1 (Continued)

Analysis { outs to particular students who had different learning needs. I provided Tomás, who was developmentally at a second-grade level, a more structured worksheet in Spanish, which he was able to successfully complete. For the benefit of Juan and others, I provided “extra credit” questions on the class’s regular handout, because I wanted to encourage them to push themselves in their thinking processes.

Description { After the class review of the respiratory system, we referred to the literature provided by the Red Cross on how to administer first aid to a choking victim. Since

Analysis { my main goal was teaching science information, I was not concerned with which language(s) students used to assimilate information or demonstrate their knowledge. I was able to provide texts in both Spanish and English (and in this case Vietnamese) by asking community volunteers to translate worksheets. Students read and in pairs discussed circumstances in which they might find someone choking and what they would do. As seen in the videotape during this section of the class, I monitored groups, directing them back to the first-aid pictures and texts, praising good group work and reminding some students of the rules we jointly developed for respecting one another and for learning.

Description { To conclude the lesson, we discussed crucial differences in administering care to adults and children, linking this to differences in the body systems of children (who are still developing) and adults. We watched the conclusion of the 911 tape and compared our choices to those of the actual paramedics. You can see in the videotape how pleased the students were to see that they had correctly predicted the paramedics’ plan.

Later in the unit, students were assessed summatively both in a written test (in Spanish, English, and Vietnamese, with students free to respond in the language of their choice) with multiple-choice questions and short answers, and also in performance-based tests where groups of students acted out role-plays, as they had in the lessons.

Analysis { My students present many challenges and many rich opportunities for learning. I designed this lesson to be interesting because they could see applications to

Example 1 (Continued)

Analysis

their lives; because it employed multimedia components—television, overhead transparencies, handouts, and brochures; and because they could actively learn through teamwork and hands-on assignments. I tried to design out-of-class work, such as teaching a family member about what was learned in class and reporting back, to be nonessential to the next day's lesson, so that I did not "lose" those students who, for various reasons, did not do the homework. Homework provided opportunities for enrichment or application, but did not hold back students who cared for siblings and had less time for academic activities in the evenings. These supports did not make the class "easier." In fact many students still did poorly despite my efforts to engage them. However, this approach to learning seemed to raise class interest in learning, as evidenced through a high level of participation by a majority of students. I could see in their written work that a large number of the students were able to learn most of the information presented, and I experienced fewer classroom management problems than other teachers who have this group of students.

Reflection

In looking back at this unit on body systems and first aid, I would have liked to build in more pre-testing, to better assess students' prior knowledge. I would also have liked to bring in a bilingual speaker from the Red Cross, who had a positive relationship with the local Hispanic or Vietnamese community groups. I did not try this initially, since I was unsure of how well-behaved the students would be. I think I would need to discuss guidelines with them for having speakers, and we would all need to agree on a code of behavior, much as we did for the classroom in general (at the beginning of the year). Overall, the lesson was successful, and I tried to apply a similar approach to all of my units in this class.

Example 2

Description	I teach English Literature at a large urban high school in an economically depressed area. My students are 11th and 12th graders, with varied reading and developmental levels. The majority of students are African American, with four Asian students. Most students come from families who are struggling financially. My students have had to deal with drug-related deaths of friends or siblings, and many drop out of school to seek part-time jobs.
Analysis	I believe it is important to expose my students to both “classical” literature written by predominantly White, European authors, and also to literature written by people who share my students’ racial backgrounds. I seek to make all texts accessible to my students by having them make connections between the characters in the books and their own daily life experiences. In this unit, we read <i>The Scarlet Letter</i> by Nathaniel Hawthorne. The goal of this unit is to have the students gain an appreciation of how an author develops character through a story, and to gain skills in interpreting a text. I chose to assess this through a performance-assessment, which brought characters to life in a talk-show format.
Description	Since many of my students are not schooled in the skills of being organized enough to bring books to school every day, it is more effective to assign in-class reading. This allows me to actively model good reading skills, to provide one-on-one coaching to those who have difficulty, to guide students to navigate challenging vocabulary, and to help them critically analyze the subtext of what they are reading.
Analysis	We read <i>The Scarlet Letter</i> through a variety of activities, including silent reading, reading aloud in turns, and together. We talked about what we had read as a whole group and in small groups, with guiding questions. At one point we made collages representing the key townspeople and their respective roles in the unfolding drama. I used non-literary activities to explore literature because it allowed students with weak reading skills to excel in a reading-focused class. Slow readers were able to keep up with the story through class discussion and

Example 2 (Continued)

Description { updates, and they could receive praise for their visual depictions of the story. Faster readers used extra class time to write in their reading diaries or to work on related stories, which would be published in our school's newspaper. By

Analysis { providing a variety of reading-related activities, I could accommodate the different learning strengths of my students and actively engage them around a single text.

Description { As we read *The Scarlet Letter*, we discussed the stigmas that many of the students regularly experience—the racism they experience due to the color of their skin and the classism they experience based on their economic realities. We also talked about in-group and out-group pressures, and how society's

Analysis { “outsiders” can offer resistance to the so-called norms that exist. Although *The Scarlet Letter* took place in a very different time and with very different characters, my students were able to see how the story might relate to their own experiences.

Description { As a culminating assessment activity in this study of *The Scarlet Letter*, my students and I put together a talk-show performance. Students self-selected to play certain characters. Each character was charged with learning as much as they could about their history, their life issues, and how they could be expected to react in any given situation. The remaining students composed the audience and were responsible for coming up with in-depth questions to get at the heart of the book's issues—who had the right to judge, how should a community address those who break written or unwritten rules, and so on. Students had to keep a research journal as they researched their character or developed questions as an audience member. I assessed each student on their journal entries and their talk-show performance.

We spent several class periods researching roles and designing a loose script for the performance. Student attendance was higher than usual during this time, because students absent for practice and planning could not readily fulfill their responsibilities for the performance. Students' own peers encouraged

Example 2 (Continued)

Description { everyone to attend and stay focused. The project became the students' own; I became a resource to clarify questions about the text and to remind students to stay true to their characters.

Analysis { We were fortunate to have block periods for part of the week, so we ran our talk-show during an extended 1½-hour class period. Students played their parts well, and audience members pointed out when students slipped out of character. When an audience member asked a surprising question, the students who were in-character were challenged to respond as their character might, applying their knowledge of how their character had responded to other situations in the book. When the class ended, the talk-show guests were reluctant to “break form” and leave their characters behind. I gained insight into the students through this whole process. A common area of difficulty was writing down what they could explain verbally. Based on this assessment I plan to include more focused journal writing activities.

Reflection { Bringing literary canons to life through active reading and performance of the stories has helped my students to see English class as something worthwhile. My students still struggle with the realities of disrupted families, multiple part-time jobs, etc., but books have some relevance and can even offer hope or alternatives. I have found that some students will tell me they read at home occasionally or that they read to their siblings. Others have simply found that they have the ability to read a text that they would have felt was “too hard” before. Since reading, discussing, and performing a single text takes several weeks, I might in the future have students read multiple books before organizing a performance where the characters from each text would meet in a talk-show format. I might also vary the performance mode and bring theater to life by asking students to write different endings for a text and then perform those endings.

Example 3

Description { The school where I work is in a very rural area. The majority of the students come from farming and blue-collar families. There is little opportunity to visit museums or other places of educational interest more often found in cities. My students range in age from 8 to 10, and I teach in a self-contained combined 3rd and 4th grade class. All of my students are White and have all been in the same class together since kindergarten.

Analysis { My students are all very “practical-natured” and so I try to make our work together in class as relevant as possible. Since it is a combined class, there is a wide range of skills and abilities among the students, and so I often pair weaker and stronger students to work together on projects. Since they have been together for so long, they mostly work well together. I have two students who are ADD. I try to vary activities to accommodate their physical and academic needs along with the whole class.

Description { This year we have been spending a lot of time on numbers, place value, and estimation. Ensuring that students have a good foundation in number sense provides a strong base for future work. I try to vary the activities so that they do not get bored. We had done some work on hundredths, tenths, units, tens, and hundreds earlier in

Analysis { the year, and my goal for this unit was to build on that and to introduce the idea of using estimation to check work. Later in the year we will return to the idea of estimation, but with measurements of distance and volume.

Description { I began the lesson with a question-and-answer session with the students. I tried to make sure that every student had an opportunity to answer at least one question. We began with rounding numbers. I wrote a number on the board and then told them to round it to the nearest 10, 100, or 1000. We then looked at decimal numbers and rounded them to the nearest tenth or hundredth. From there we talked about how to use this to help us estimate answers to multiplication problems. We worked through a couple of problems together. Each student then had to write a word problem and share it with the three other students in his or her group. That way each student had to read and answer 3 problems. It also was an opportunity to practice

Example 3 (Continued)

Description { writing a short story.
After that, I gave each group a set of “snap” cards. Half the cards had multiplication problems, and half the cards had estimated answers. Students placed cards down one at a time in their group and when two cards “matched” they could shout SNAP. If they were correct, they got to keep all the cards on the pile; otherwise they forfeited a turn. The winner ended up with all the cards.

Analysis { As the students played the game, I moved around the room, listening to them, and occasionally bringing them back on task. Listening to the conversations in each group allowed me to assess that they really understood the concept and could apply it. I used several different sets of snap cards that were of varying degrees of difficulty. My fourth grade groups used harder sets, since they were more advanced mathematically. As an extension to this lesson, I also worked with the fourth grade students separately to introduce the idea of estimating as a way of checking the reasonableness of answers to division problems.

Description { Each week I like to give the class a homework problem that usually involves their parents or caregivers. For this week, I asked them to talk with an adult to find out a real-life example of when he or she used estimation at work. I asked each student to write up a short paragraph explaining it and to give an example. I set aside class time for everyone to work on their writing. Pairs of students read each other’s paragraph to edit them and make sure they made sense.

Analysis { During the following week I read three or four of these each day to the class, and we talked about them. That way, even though we had moved on to a different math topic, I was able to reinforce the concepts of estimation for several more days. Also, I posted each student’s writing on our work-board and encouraged the class to read them in their spare time.

Looking back on this unit, I feel that the students were able to refresh their understanding of previous math lessons and also to develop skills of estimation. By having them write stories on real-life examples, they were able to see the

Example 3 (Continued)

- Analysis { relevance of what we were learning, and I have been asking them to estimate answers when they do other work in science classes.
- The game of snap was a fun activity, but one that really required them to think hard. I could really see them concentrating and correcting each other when someone made a mistake. I was able to provide on the spot help to students that were having problems. It also helped me see which students were stronger in mental math.
- Reflection { If I were to teach this lesson again, I would do it earlier in the year, as I found it really helped some of my weaker students to revisit number sense and place value. I also would include a more formal evaluation to assess all students, rather than just listening to their answers in class. A couple of the students are quite quiet, and I did not get to hear much from them. Overall, I feel that I met my goals and that my students' mathematical understanding was strengthened.

Reviewing Your Writing

An important step in writing, regardless of the skill or experience of the writer, is to review the writing with an objective mind. Even professional writers can become so involved in their writing that they sometimes forget to include information that the readers don't know. For some, reviewing with objectivity requires "distance," or time away from the project. If you have time, set the writing aside for a day (or more) and do not think about it. The next time you read it, you should have an easier time realizing where you left out important information, where a transition is missing, or where something is unclear.

If you do not have time to get some distance between yourself and the writing, have at least one other person read your work. This person should be someone who will be thorough and constructive with his or her feedback. Your goal in having someone else read your work is to discover things that need improvement that you may not be able to see. Explain the basic entry instructions to this person, and let him or her review the National Board *Standards* for the entry. Remind this person to keep in mind that this writing (along with the other items required by the entry) is all the information an assessor will have about your practice, and that you need feedback about this writing, not about you or your teaching practice. Have this person mark places he or she doesn't understand or where he or she "would like to know more." This kind of feedback may indicate to you that a passage needs further detail or explanation.

You will find that different people provide different insights about what might improve your writing. Another teacher would give a much different critique than someone who is not a teacher. Realize that both kinds of feedback are valid and important. All NBPTS assessors are teachers in your certificate area who have undergone extensive training in NBPTS scoring procedures. However, non-teachers may be able to see "skips" in logic or notice areas of your writing that need further explanation. In addition, a colleague from your school may not need much explanation of a situation unique to your teaching environment because he or she is already familiar with it.

Once you have received feedback, understand that it is simply the opinions of unique readers of your writing, and that it is up to you to decide how to use this information. You may find that you receive feedback that seems to contradict other feedback you received. At this point, read the writing from both points of view. Follow the suggestions that make sense to you, or make changes to your writing that you feel would clear up whatever problem exists in the writing. Sometimes, a reader is unable to pinpoint the exact source of a problem in writing, but knows that some problem exists. It may take some thought and work on your part to determine which changes will be most beneficial to your writing. You may need to do several drafts of your writing to accomplish the one you feel best demonstrates what you are trying to show about your teaching, and that demonstrates the *Standards* for the entry have been met.

It is important to keep in mind that a writer must eventually send his or her writing out into the world. In this case, it means that you must mail your portfolio to NBPTS by the deadline for portfolio submission. You may want to give yourself an earlier deadline for finishing your Written Commentaries to give yourself time to review your writing and get feedback from others. The goal of the NBPTS portfolio entries is to submit the best evidence of your teaching possible during the time allotted for completion of your portfolio.

Analysis Practice & Activities

The purpose of the resources and materials that follow is to give you an opportunity to practice some important skills you may rarely have time to use. Most teachers have little opportunity in their demanding professional days to systematically analyze all of the information students produce about who they are, what they know, and the state of their learning. It is even more unusual for teachers to have the time or occasion to write down their analytical insights about students and their work.

The resources and activities that follow offer a framework for thinking analytically about student work, particularly student responses to assignments, class work, assessments, and other instructional materials. A critical component of the assessment materials you will submit is the commentary you write about students and their work. Because this kind of writing may be unfamiliar to teachers, some practice is likely to be both helpful and reassuring. But beyond the purposes of the assessment, this kind of thinking and writing about your teaching will repay the time you spend on it tenfold. You may be surprised by the depth and breadth of your perceptions about student work once you begin to focus analytically, and, in turn, student work will become a much more interesting and critical resource of pedagogical information for you than it has been.

One element of analysis is development of your own repertoire of questions and strategies for understanding the work students produce. The other essential element is creating rich and interesting opportunities for student responses, particularly in the occasions for response, or the prompts or problems posed for students as they explore and master new ideas.

About Analysis

The work of analysis is not easy. Often people write down the first stages in an analytical examination of instruction, and what they produce is a description of what they have seen rather than an analysis. Prior to analysis, patient observation and detailed description of the evidence is required in order to ask insightful questions and make knowledgeable connections regarding hypotheses about student learning. Only after all of these stages can a thorough analysis be written. And if you are also reflecting on your practice as a part of that analysis, a further prewriting step is required. As you connect what you did with what you see in evidence of student learning, you must examine the effectiveness of your actions, the possible options, and their potential effects.

Given the significant portion of silent—but **essential**—cognitive work that must take place to produce an analysis that will serve to broaden and deepen your practice and thus to enhance future student learning, it is very important to recognize that this process is the heart of an analytical approach to any complex professional activity. To help develop your confidence that the process is worthwhile and within your ability to complete it, we have devised some activities that take you through the process step by step. All of these activities use examples based on written student work. The principles apply to all instructional materials, and can be beneficial when used in conjunction with the video practice resources in *Get Started*.

Analysis Practice includes the following sections:

Analysis Activity 1
Analysis Activity 2
Analysis Activity 3
Analysis Activity 4

Practice Activities

Activity 1

Observation and Description

Choose an assignment from one of your classes that you thought elicited considerable information about your students' understandings. Gather together three different students' responses to the assignment. Be sure to choose three students who pose differing instructional challenges to you as a teacher.

1. Look carefully at the assignment or prompt to which the student work you have chosen responds. Answer the following questions with specific details about the assignment. (The word "assignment" is used generically to mean an occasion, prompt, or other eliciting device for substantive student response):
 - What was the goal of this assignment?
 - Why is this an important goal for student learning of the subject?
 - How was this assignment connected to other activities, in or out of class?
 - What subject-specific concepts did students need to know in order to complete this assignment successfully?
 - What misconceptions would you predict might appear in student responses to this assignment?
 - In what ways did you intend for this assignment to extend students' thinking about the topic?
2. What did each student do correctly? Incorrectly?
 - Student 1
 - Student 2
 - Student 3
3. For each of the students you have chosen, jot down brief descriptions of the following features of the response to your assignment.

Most striking feature of the response:

- Student 1
- Student 2
- Student 3

Patterns in the response:

- Student 1
- Student 2
- Student 3

Misconceptions each response reveals:

- Student 1
- Student 2
- Student 3

Insights each response reveals (if any):

- Student 1
- Student 2
- Student 3

What feedback did you give each student?

- Student 1
- Student 2
- Student 3

Practice Activities

Activity 2

Interpretation: What Does Each Student's Response Tell You?

Using the **same** three student responses, jot down answers to the following questions for each student. Here the emphasis is on your interpretation of what you see.

Ask Yourself:

- How can you interpret the response from the student?
 - What frame of reference is available to you to aid in that interpretation?
 - What are the cues the student and the work give you?
 - Using what you know about the connections that need to be made in order to understand ideas in particular domains appropriate to the content area, what does each student's response tell you?
 - How can your colleagues assist you in your interpretive work?
1. What is each student's most essential misunderstanding or difficulty?
 - Student 1
 - Student 2
 - Student 3
 2. How does each student's response fit into what you already know about this student's understandings and performance? Be specific.
 - Student 1
 - Student 2
 - Student 3
 3. In two sentences for each student, describe what each learned from this assignment, judging from the responses.
 - Student 1
 - Student 2
 - Student 3
 4. What does each student need to do next to move his or her understandings forward?
 - Student 1
 - Student 2
 - Student 3

Practice Activities

Activity 3

How Does Each Student's Response Illuminate Your Practice?

In this activity use what you have observed of each student's work and how you have interpreted those observations to illuminate your goals and your strategies for reaching those goals. The focus of this analysis is the degree to which the student's work shows that your goals for the assignment and for your instruction prior to the assignment were met.

1. For each of the three students, write a brief but very specific diagnosis of the degree to which this student work shows that your goals for the assignment were met.
 - Student 1
 - Student 2
 - Student 3
2. Explain briefly how your instruction prior to the assignment was designed to prepare these students to complete this assignment successfully.
3. For each of the three students, give your best diagnosis of the performance they have exhibited on this assignment. What parts of your instruction and/or preparation for this assignment do you think need reteaching or reinforcement for each student?
 - Student 1
 - Student 2
 - Student 3
4. Given each student's performance on this assignment, what goals should you set for each of these students in the immediate future? the more distant future?
 - Student 1
 - Student 2
 - Student 3
5. What was your feedback strategy for each of these students?
6. Why did you choose that strategy for these particular students?

Practice Activities

Activity 4

Reflection

The final stage in analyzing student responses is reflection on your practice. It is in this final stage that you ask—in light of what the student responses have told you about the students' understandings, difficulties, misconceptions, and gaps—what you might do next, or differently, or additionally for these students. It is the habit of reflecting on decisions made in the midst of the teaching day that distinguishes the analytical teacher. And it is reflective practice that moves accomplished practitioners constantly forward, as teachers become their own observers and coaches, congratulating themselves for making choices that advance student learning in particularly efficacious ways and encouraging themselves to try yet another strategy when they aren't satisfied with students' progress.

The following questions are designed to help you reflect on your practice with the three students that have been the focus of these activities. These questions, however, are questions that could be asked at the end of each teaching day about each class you teach. Once you begin to think in these terms, you need not write down the answers. You will find that the habit of reflection generates so many new ideas and strategies that you will hardly find the time to try them all. Look back at the three student responses to your assignment. Briefly answer each of these questions about these students, their responses, and your own sense of your practice.

1. What did each student learn from this assignment and the instruction that preceded it? **Be specific.**
 - Student 1
 - Student 2
 - Student 3
2. What did you learn from each student's response?
 - Student 1
 - Student 2
 - Student 3
3. What would you do differently in light of the student responses to this assignment?
4. In light of your analysis, reevaluate your feedback strategies. Would you alter them in any way? If so, how and why? If not, why not?
5. Would you give the same assignment again? If so, would you prepare students for it differently? If so, how? If not, what assignment would you give in its place? Why?

Video Recording Overview

Candidates are asked to submit video recordings of their teaching in two or more of the portfolio entries required for National Board Certification. Video recordings may be submitted in VHS or DVD format. For DVD submittals, refer to the instructions included with your portfolio kit.

It is important to remember that the purpose of a video recording is to provide as authentic and complete a view of your teaching as possible. National Board assessors are not able to visit your classes; a video recording is the only indication that they have of how you interact with students, the climate you create in the classroom, and the ways in which you engage students in learning. A picture is "worth a thousand words" in conveying to others how you practice your profession, the decisions you make, and your relationships with students.

Until both you and your students gain experience, a video recording is likely to present a highly inauthentic view of your teaching. When a video camera is in the classroom for the first time, many students will behave differently. Some will become quiet and slide down in their seats as though hiding. Others will ham it up and play to the camera. And many teachers find themselves inhibited and acting in different ways (perhaps more formally) than they usually do. It is normal to find the initial experience with a video camera uncomfortable. We do not see ourselves quite the way others see us, and the difference can be a shock. It takes some getting used to, and practice is the only remedy. The same can be said of students; only multiple opportunities with a video camera will enable students to behave naturally in its presence.

For all these reasons, then, it is highly advisable to practice with a video camera. Place the camera and tripod (or locate a position, for example, on top of a file cabinet) where the camera will receive a good picture of the entire classroom. Record several classes and watch them alone. You will become accustomed to how you look and sound, and you will begin to notice what the students are doing and how their learning could be improved (See Video Practice for more information.)

It is a good idea, then, to make several practice video recordings before you make any that you might want to use for your portfolio. This practice will enable both you and your students to become familiar with both the mechanics of video recording and with maintaining a natural demeanor in front of the camera.

More detailed information on the technical aspect of video recording can be found later in this section under the titles of Practical Matters and Technical Matters.

Video Practice

The purpose of this section is to present strategies to guide you as you practice making and analyzing video recordings of your teaching. We encourage you to practice by video recording as many lessons as possible. None of these must be "teacher in the front of the class" lessons, but they can be.

The directions in this section are relatively open-ended; we encourage you to experiment in order to find the most effective use of video recording for your particular situation. However, be sure to base your video practice sessions on the *Standards* for your certificate area, since the video recording materials you will eventually submit must reflect the elements of teaching practice that are judged essential to the National Board's vision of accomplished teaching. It is these elements, based on the *Standards*, that assessors will look for in the materials you submit.

The strategies presented in this section will give you important practice observing your own teaching, allowing you to reflect on the opportunities you decided to pursue and those you decided not to take. In the process of observing your teaching, you will practice analyzing your teaching in a way that you cannot accomplish without a video recording—that is, by watching what you do and when you do it as the lesson unfolds.

Analysis Into Practice

We have provided an Analysis Into Practice Course of Action Form that offers one way for you to define the particular features of your practice that you would like to polish. The form is deliberately general to allow you to determine the direction of your action plan. One useful way to think about this tool is to look at the Analysis Questions and identify those areas that you would most like to improve in your practice. You can then use the form to chart your course of action.

Video Practice includes the following sections:

- Analyzing Your Videos
- Analysis Questions
- Analysis Into Practice Course of Action Form
- Video Recording Your Classes

Analyzing Your Videos

- A. Review your video recordings, keeping the Analysis Questions in mind. You may want to watch them several times. We suggest that you initially watch each recording with the sound turned off. This should give you greater awareness of your and your students' nonverbal behavior, such as facial expressions and body language.
- B. Twenty-minute video recordings will be sufficient for your analysis. Select several of your video recordings for analysis, keeping in mind the suggestions about representing multiple class sessions and course offerings. All video recordings should be continuous and unedited.
- C. After you have chosen the video recordings that you will use, answer the "Analysis Questions" that follow. Your responses should be straightforward and written in non-technical language.
- D. When you have finished answering the questions, review your writing. Read through what you have written with as fresh a view as possible. Imagine as you read that you do not know anything about the unit or the students you have selected. Is your writing clear? Can you follow your thinking?

Video Analysis Questions

Video recorded teaching sessions offer particularly strong evidence of a teacher's knowledge and ability. The following questions are designed to focus attention on aspects of teaching that are described in the National Board *Standards*. We suggest that you use these questions to hone your skills as an observer and analyst of your own teaching. These questions will also be useful in guiding discussion of your video recordings and those of others in your professional collaboration group, if you are working with such a group.

1. What is the extent of classroom involvement (e.g., are the same students doing all the talking)?
2. Are the students engaged in the lesson? How can you tell? What do students' facial expressions and body language tell you about your instruction?
3. What kinds of questions do you ask? Can all questions be answered with a single word? How long do you wait for responses? Do you ask students to explain and/or defend a particular answer or approach? Do you ask students to compare or evaluate alternative interpretations or strategies?
4. Were there any opportunities for students to ask questions? How would you categorize the students' questions (e.g., did they indicate confusion and a need for clarification or understanding and extension)?
5. What roles (e.g., expert, facilitator, co-learner) did you play in the video recording? Was each role appropriate for the situation?
6. What kinds of tasks did you ask students to do? Did you capitalize on their previous knowledge and experiences?
7. What instructional opportunities did you take advantage of? Why?
8. What instructional opportunities did you not take advantage of? Why?
9. What evidence did you see of the students taking intellectual risks? Does the climate of the classroom provide a safe environment for getting something wrong? Do students talk to each other as well as to you?
10. Do you encourage students to take risks, to speculate, to offer conjectures about possible approaches, strategies, and interpretations?
11. Were the learning goals for the lesson achieved? Did you adjust the lesson so your goals could be achieved by every student? What is the evidence for your answers, both in the video recording and from other sources?
12. Explain how your design and execution of this lesson affected the achievement of your instructional goals. (Your response might include—but is not limited to—such things as the anticipation and handling of student misconceptions, the unexpected questions from students, the unanticipated opportunity for learning that you captured, or your planned strategy and its outcomes in the lesson.)

Video Analysis Into Practice Course of Action Form

Based on the video that you just viewed, list in the boxes below, the two specific areas in your practice that you want to improve or further develop. Also answer the additional questions in the chart.

Area 1	Area 2
Identify an end goal (i.e., what you would want to see in your practice as evidence of development).	Identify an end goal (i.e., what you would want to see in your practice as evidence of development).
How will you reach this goal?	How will you reach this goal?

Get Started

Video Recording Your Class

So that you and your students become familiar with video recording, we encourage you to arrange to record as many different classroom sessions as possible. The directions below apply to each of the video recordings you produce. To get the maximum benefit from this practice, you should record a minimum of three different classroom sessions. You should also record varied teaching formats: full-group instruction, cooperative-group work, small group instruction. The purpose of the practice is to make you comfortable with video recording as a medium of conveying your practice.

- Select the sessions you will video record. This practice exercise will be most beneficial if you record multiple sessions from as wide a variety of lessons or students as your teaching assignment permits. The classes you choose need not be the most advanced, but the topics of the lessons you record should be ones that are important for the students at their level of learning and in which they are likely to be engaged.
- If possible, arrange for someone (another teacher or a student) to operate the video equipment. Arrange for that person to be available for several sessions. Review video recording procedures with that individual, give him or her a copy of the "Notes for Videocamera Operation" in the "Cover Sheets and Forms" section of the entry directions, and the Video Recording Overview. Inform this person to avoid stopping the camera or using the "fade in/out" function of the camera so that no content is lost and your recording does not appear to have been edited.
- For each session, jot down a few notes that will help you recall that session for the analysis of your recording. To guide your note-taking, review Analysis Questions, which outlines the content of your video analysis. At a minimum, we recommend that your notes include the following:
 - any particular instructional challenges offered by the students;
 - the learning goals (lesson objectives) for the lesson;
 - your opinion about the overall success of the lesson (i.e., were the learning goals achieved?) and the evidence you have as a basis for your opinion; and
 - a description of any instructional materials used in the lesson.

Be sure to label the recordings and your notes in such a way that you can quickly and correctly match them up with each other.

Video Recording Practical Matters

Before embarking on a series of video sessions (even those for practice) you will have to address a number of practical matters such as those outlined below.

Permission

Obtain a Student Release Form for each student who might appear on a submitted video. Any adult who may be included in a video recording should also sign an Adult Release Form. This is true even if you are making the video recordings only for practice, since you might make a video suitable for submission when you are only intending to practice.

If possible, you should secure permission from the parents or legal guardians of **all** your students in case they are needed. A Student Release Form and an Adult Release Form are included in "Cover Sheets and Forms" in the entry directions and *Forms & Specs*. Explain to the parents or legal guardians that you are using the video recordings for discussions with other teachers about the best ways to teach, and that the students will never be identified by their full names. You should try to help them understand that the video recordings are not about the students, but are intended for professional discussion. If, for some reason, a student's parents refuse to grant permission, you will have to take care that the student is seated out of the camera's range.

Equipment

Use the best video recording equipment and videos or DVDs available when making your recordings. Purchase a few new, standard VHS videotape cartridges or DVDs to use for recording, even during practice sessions, in case a lesson you intend to record for video practice turns out to be suitable for submitting with your portfolio. If you plan to submit video evidence in digital format, refer to the instructions included in your portfolio kit for DVD specifications and submittal requirements. Previously used tapes or DVDs from home may be worn out or may contain other material. Although the appearance of unrelated material before or after your video segment will not impact your score, using a new tape/DVD will enable you to make a higher-quality recording, and eliminate the chances of any unintended distractions appearing on the video you submit. To ensure that your video recordings can be viewed properly at scoring, do not submit video evidence using miniature or adapted formats, such as VHS-C, Super VHS, or HI-8. You should record using "Standard (SP) format", not "Extended (EP, LP, SLP)" play formats. If you are submitting video evidence on DVD, refer to the instructions included with your portfolio kit for DVD specifications. We recommend that you copy your selected footage onto a new VHS videotape cartridge or DVD prior to submission for scoring.

It is often difficult to hear students speaking, so you should make sure that the system you use has a sensitive microphone. Some hand-held cameras have reception that is sensitive enough; with others you will want to locate a separate microphone. The only way you will know is to experiment.

If you are filming small student groups, you should carry a hand-held microphone while circulating among the groups to record your voice and the voices of the students.

If you own a video camera, you may want to use it in your classroom. That way, you will not have to learn to use new equipment. On the other hand, your school may have better equipment, which you could borrow. In that case, you should arrange for such equipment from the relevant department.

The minimum equipment needed to make video recordings of your class includes:

- **a video camera**
- **new, blank, standard VHS videotape cartridges or DVDs**
- **a tripod**
- **an extension cord**
- **headphones** to monitor the sound being recorded. Many different types of headphones will work that are relatively inexpensive and readily available, such as those from personal cassette players or tape recorders.
- **an external Pressure Zone Microphone® (PZM®)** that can be placed near students and connected to the camera a distance away. Information about PZM® and other microphones can be found at www.crownaudio.com/mics.htm. You can also check with other audio retailers to find the appropriate microphone for your use. Helpful hints on how to use this relatively inexpensive microphone are provided in the "Audio" portion of this section.

Camera Person

As you work out the details of video recording in your classes, you may find others who have the time and expertise to offer you assistance. If a local college or university offers courses in video communication, there may be students there who would be grateful for the opportunity to help with camera work. Alternatively, such courses within a high school may supply students looking for experience. For advice, consider speaking with your school or school district library media specialist or AV specialist; these people may have helpful suggestions.

Copying Your Video Recordings

Before submitting any video evidence as part of the portfolio, **make a copy**. Video recordings are only lost or damaged very rarely; however, if that should happen, your copy would provide an essential backup that could then be submitted.

In order to transfer video segments onto a single VHS tape, and to make a backup copy of your tape, you will need:

- **two VCRs** (one for playback and one for recording) **or a camera** (for playback) that allows you to record onto a VCR
 - when using two VCRs for dubbing, set both to the same channel (normally Ch. 3)
 - set the recording VCR to LINE-IN (consult your VCR instruction manual for specific directions) so that it will accept the video and audio signals from the playback camera or VCR
- **cables** to connect the two VCRs or a camera and VCR
- **a TV monitor**
- **new, blank, standard VHS videotape cartridges**

Set up the two VCRs or camera and VCR by connecting the "AUDIO OUT" from the playback VCR or camera to the "AUDIO IN" plug on the VCR used for recording. Then, connect the "VIDEO OUT" from the playback VCR or camera to the "VIDEO IN" plug on the VCR used for recording. Lastly, to be certain your video segment is being recorded successfully, attach the recording VCR to a monitor by

connecting the VCR's "CABLE OUT" plug to the monitor's "ANTENNA" or "CABLE IN" plug, or the audio and video line outs from the recording VCR to the audio and video line-ins of the monitor. It may also be helpful to consult the instructions that come with the VCR and camera or to get technical assistance transferring and duplicating videotapes.

In order to transfer video segments onto a DVD, refer to the instructions included with your portfolio kit.

Cautions for Submissions

1. Review the entire video recording before submitting the original. Remember that you are to submit **only** the segment that is to be used for scoring.
2. Make sure your video recordings do not exceed the time limits stated in the instructions. While submitting a video recording that exceeds the time limit does not disqualify your entry, scorers will not view excess video footage that extends beyond the stated time limit.
3. All video recordings must be continuous and unedited unless explicitly directed otherwise in the entry instructions. **Edited video recordings will make your entry unscorable. Do not** stop and restart the camera or the sound—this is classified as an edit.

Video Recording Technical Matters

After your students (and you) have become accustomed to the presence of video equipment, you will want to be able to produce quality video recordings reflective of your work with students. While you should be aware that professional quality is **not** expected, there are a few technical matters that can improve the quality of your videos.

Tips to Improve Video Quality

1. **If possible, use a tripod.** A fixed position will eliminate the most obvious problem of video quality, namely the wobbly effect of an unsteady hand.
2. **If chalkboard writing is important to the lesson, be sure that it is captured on the video recording and is legible.** This may require refocusing the lens on the board. In addition, sometimes writing is legible to the eye but not to the camera. You may have to move the camera to reduce the amount of glare on the board, or use dark markers on chart paper taped to the chalkboard.
3. **In general, the camera should be pointed at the speaker.** That is, when the teacher is speaking, the camera should be aimed at the teacher. When students are speaking, the camera should capture them. This general principle will be difficult to achieve, however, if the camera is positioned at the back of the room. A side position will be more effective.
4. **Set the zoom lens to its widest setting if it is necessary to move the camera while recording.** This will cut down on the shakiness of the recorded image.
5. **Increasing the amount of light in the classroom will improve the video recording.** Therefore, be sure to turn on all the lights and, if possible, open your curtains or blinds.
6. **If you are using an older camera, you may have to adjust it for the light source each time you shoot.** Newer cameras, however, may have a switch for recording in incandescent, fluorescent, or daylight, or may be completely automatic.
7. **Avoid shooting into bright light.** If there are windows on one side of the classroom, try to shoot with your back to the light.

Audio

Audio quality can present the most troublesome aspect of classroom video recording, and it is extremely important. If you or your students cannot be heard, it is difficult for assessors to recognize and score your performance. Flat, echoing walls and multiple students talking simultaneously make good sound retrieval a challenge in classroom video recording. Yet, clarity of conversations is extremely important for scorers who need to interpret the content of the dialogue.

Built-in microphones come with most recent-model cameras. However, reliance on the built-in microphone for classroom recording requires very careful monitoring of audio quality. Even with professional recording, it is often difficult to hear everything that students say. Only you can determine whether a given level of sound quality enables a listener to understand most of what is being said. If you find that the built-in microphone is inadequate, you should experiment with an external microphone, that is, one that can be placed nearer to the students and connected to the camera.

When recording, always test the sound quality and keep the following tips in mind.

Tips to Improve Audio Quality

1. **Always keep the microphone close to the action.** The location of the microphone is key to capturing quality audio. Remember that the closer the microphone is to the action, the better the sound recording will be. If you are circulating among student groups, for example, and you want to capture your interactions with a group, consider carrying an external microphone. The microphone can be suspended from the ceiling in the center of the room for whole class recording.
2. **You can use an external PZM[®] microphone**, since this is the most effective way to enhance the sound quality of your video recording. The built-in microphone of most cameras is generally not adequate, because it is attached to the camera, which is frequently not close enough to the person speaking. This means that the microphone picks up background noise and misses important conversations. Most PZM[®] microphones look like small Ping-Pong paddles and lie flat to pick up sound that reflects off of large, flat surfaces, such as table tops or walls. For almost all video cameras, the external PZM[®] microphone is plugged into the "EXT MIC" jack on the camera. When plugged in, the built-in microphone on most newer cameras automatically turns off and only the sounds from the external microphone will be recorded. Be sure to check this feature of your camera before you begin recording.
3. **Eliminate noises that may interfere with recording.** If the camera or external microphone is picking up extraneous noise, consider temporarily turning off fans, air conditioners, fish tanks, etc., while you are recording. Also, whenever possible, avoid recording when you must compete with outside noises, such as lawn mowing, recess, or band practice.
4. **Have the camera person wear headphones** to monitor the sound during video recording and to rectify audio problems as they occur.
5. **Be sure that all cables are secured** and if necessary use masking tape to hold them in place. Before each taping session, you should check the equipment to be sure that all cables are secured. Many audio problems are the result of faulty connections, not poor equipment quality.



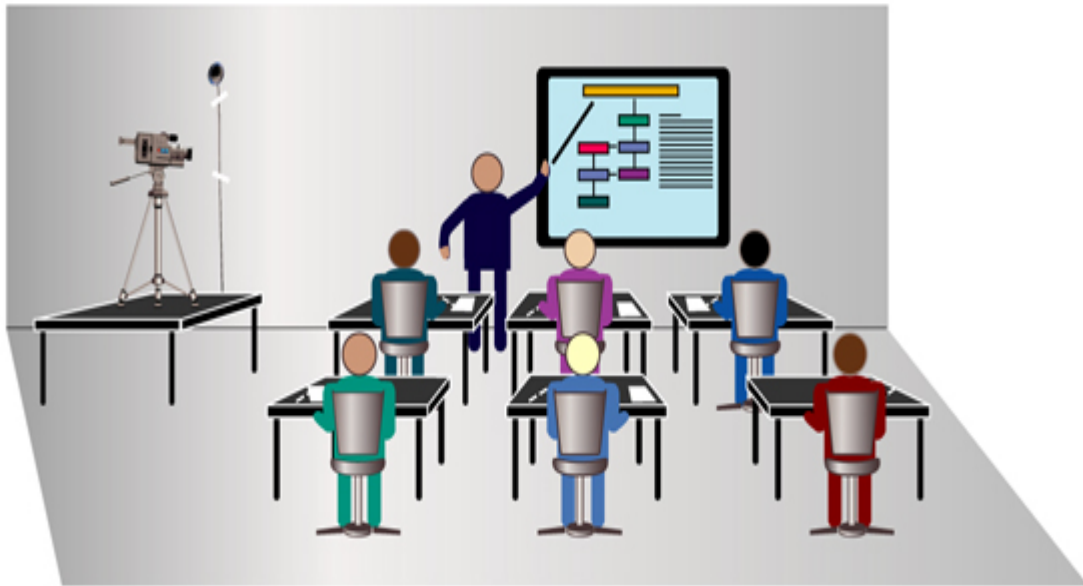
Directions for setting up an external microphone, and the necessary equipment, are provided in the following table.

Using An External Microphone	
Equipment	Set-Up
1 omnidirectional dynamic microphone 1 heavy-duty extension cable 1 adapter	<ol style="list-style-type: none">1. Plug one end of the adapter into the external MIC opening on the video camera.2. Plug the extension cable into the other end of the adapter.3. Plug the external microphone cable into the extension cable.4. Plug the external microphone into the external microphone cable.5. You are now ready to begin video recording.

Whole Class Video Recording

The following are recommendations for video recording whole class teaching activities such as demonstrations, discussions, etc.:

- **Camera placement**—it is optimal to place the camera on a tripod at the side of the room, and if possible, set it up high on a counter or table.
- **Set the lens to a wide angle**—it is important for scorers to be able to see you and your students together, how your students react to what you are doing, and to see their engagement in learning.
- **Avoid trying to follow a conversation back and forth between different people**—you will find that the camera always arrives late to the action.
- **Microphone placement**—with masking tape, firmly attach the PZM[®] microphone up high on the front wall or on any other flat surface that faces toward the majority of speakers.



View of whole classroom showing best camera placement.

Small Group Video Recording

Small group video recording in NBPTS assessments is intended to focus attention on student interaction in collaborative learning situations and your facilitation of such learning as you move around the classroom. It is intended to capture a particular kind of classroom structure: one in which you interact with many small groups as they pursue independent work. The following are recommendations for video recording small group activities such as discussions among several students, or groups of students, working on a project:



View of a small group showing best camera and microphone placement.

- **Camera placement**—if you can plan ahead and determine the group of students that you will video record, it is optimal to place the camera on a tripod at one point in the group of people. Alternately, the camera can be hand held and/or braced against a wall to steady the view.
- **The camera should be a distance away from the group and show as many participants as possible**—for scorers it is important to see the facial expressions of students and to understand how you work with them. Be sure that the people who are interacting in the small group (both you and your students) can be seen and heard.
- **If the group is looking at or referring to an item**—zoom in at the beginning of the conversation and maintain a close focus long enough for scorers to be able to understand the ensuing conversation. Then, zoom out and keep the lens set wide.
- **Microphone placement**—carry the PZM[®] (or other external microphone) so that it is always closest to you and to the group with whom you are interacting. It is essential for scorers to clearly hear the participants' conversations.

Cover Sheets and Forms

Cover sheets and forms for all entries may be found in the *Forms & Specs* section. Cover sheets and forms are provided in Adobe® Acrobat® PDF format, and responses can be written in or entered electronically. The fields have a maximum number of characters—candidates will not be able to exceed this limit. It is recommended that candidates compose their responses before entering them into the form fields. It is important that responses are complete before printing each form.

To read and print these documents, candidates must install Adobe Acrobat Reader® software on their computers. Candidates can download Adobe Reader for free by following the instructions provided by Adobe Systems. Responses can be entered electronically and printed in Adobe Reader. However, Adobe Reader will not allow candidates to save the forms. Candidates will need to print their completed forms or obtain a full version of Adobe Acrobat in order to save their work.

Major Ideas in Science

Please note that the pages that follow are excerpts from the National Science Education Standards publication, not the entire published document. The pages included in this section contain only the information pertinent to completion of the portfolio for the specific certificate area you have chosen to pursue. You can use the information from these excerpted pages to assist you in completing your portfolio entries. Table numbers and references contained in these excerpted pages are those shown in the original, published document, and do not correspond to information previously shown in the portfolio instructions.

Major Ideas in Science: Excerpts from the National Science Education Standards

The "Major Ideas" in science, referred to in this document, are expected to be addressed in any high school course [depending on the discipline(s) taught]. The tables in the Science Content Standards Chapter (Chapter 6) of the National Science Education Standards summarize the major ideas. Read the succeeding pages for elaboration and advice on choosing your own major idea.

If the major ideas provided in the tables in the Science Content Standards Chapter (Chapter 6) of the National Science Education Standards are not well matched to your curriculum, you may choose your own major idea. If you choose your own major idea, be sure that you can justify it as important and appropriate for your students, and be sure the major idea is more than a fact, single concept, or description of phenomena. Avoid selecting "minor" ideas such as "how cells divide," "Ohm's law," or "how reaction rates are affected by temperature."

Your major idea must satisfy at least one of the following criteria:

- It lies at the heart of and gives structure to a scientific discipline, such as chemical bonding in chemistry, organic evolution in biology, nuclear reaction processes in physics, and plate tectonics in earth/space science.
 - It underlies most or all of the scientific disciplines such as the relationships of structure to function and the flow of matter and energy in systems.
 - It defines the nature of science, such as methods of scientific investigations and major turning points in the history of science.
 - It exemplifies the relationship of science and technology to the lives of individuals and to societies, such as the effects of sanitation, disease control and agricultural technology on human life span and population growth.
-
- Content Standards: 9-12
 - Science As Inquiry Standards

Content Standards: 9-12

Science as Inquiry

CONTENT STANDARD A:

As a result of activities in grades 9-12, all students should develop

- Abilities necessary to do scientific inquiry
- Understandings about scientific inquiry

DEVELOPING STUDENT ABILITIES AND UNDERSTANDING

For students to develop the abilities that characterize science as inquiry, they must actively participate in scientific investigations, and they must actually use the cognitive and manipulative skills associated with the formulation of scientific explanations. This standard describes the fundamental abilities and understandings of inquiry, as well as a larger framework for conducting scientific investigations of natural phenomena.

In grades 9-12, students should develop sophistication in their abilities and understanding of scientific inquiry. Students can understand that experiments are guided by concepts and are performed to test ideas. Some students still have trouble with variables and controlled experiments. Further, students often have trouble dealing with data that seem anomalous and in proposing explanations based on evidence and logic rather than on their prior beliefs about the natural world.

One challenge to teachers of science and to curriculum developers is making science investigations meaningful. Investigations should derive from questions and issues that have meaning for students. Scientific topics that have been highlighted by current events provide one source, whereas actual science- and technology-related problems provide another source of meaningful investigations. Finally, teachers of science should remember that some experiences begin with little meaning for students but develop meaning through active involvement, continued exposure, and growing skill and understanding.

A critical component of successful scientific inquiry in grades 9-12 includes having students reflect on the concepts that guide the inquiry. Also important is the prior establishment of an adequate knowledge base to support the investigation and help develop scientific explanations. The concepts of the world that students bring to school will shape the way they engage in science investigations, and serve as filters for their explanations of scientific phenomena. Left



unexamined, the limited nature of students' beliefs will interfere with their ability to develop a deep understanding of science. Thus, in a full inquiry, instructional strategies such as small-group discussions, labeled drawings, writings, and concept mapping should be used by the teacher of science to gain information about students' current explanations. Those student explanations then become a baseline for instruction as teachers help students construct explanations aligned with scientific knowledge; teachers also help students evaluate their own explanations and those made by scientists.

Students also need to learn how to analyze evidence and data. The evidence they analyze may be from their investigations, other students' investigations, or databases. Data manipulation and analysis strategies need to be modeled by teachers of science and practiced by students. Determining the range of the data, the mean and mode values of the data, plotting the data, developing mathematical functions from the data, and looking for anomalous data are all examples of analysis students can perform. Teachers of science can ask questions, such as "What explanation did you expect to develop from the data?" "Were there any surprises in the data?" "How confident do you feel about the accuracy of the data?" Students should answer questions such as these during full and partial inquiries.

Public discussions of the explanations proposed by students is a form of peer review of investigations, and peer review is an important aspect of science. Talking with peers about science experiences helps students develop meaning and understanding. Their conversations clarify the concepts and processes of science, helping students make sense of the content of science. Teachers of science should engage students in

conversations that focus on questions, such as "How do we know?" "How certain are you of those results?" "Is there a better way to do the investigation?" "If you had to explain this to someone who knew nothing about the project, how would you do it?" "Is there an alternative scientific explanation for the one we proposed?" "Should we do the investigation over?" "Do we need more evidence?" "What are our sources of experimental error?" "How do you account for an explanation that is different from ours?"

Questions like these make it possible for students to analyze data, develop a richer knowledge base, reason using science concepts, make connections between evidence and explanations, and recognize alternative explanations. Ideas should be examined and discussed in class so that other students can benefit from the feedback. Teachers of science can use the ideas of students in their class, ideas from other classes, and ideas from texts, databases, or other sources—but scientific ideas and methods should be discussed in the fashion just described.

GUIDE TO THE CONTENT STANDARD

Fundamental abilities and concepts that underlie this standard include

ABILITIES NECESSARY TO DO SCIENTIFIC INQUIRY

IDENTIFY QUESTIONS AND CONCEPTS THAT GUIDE SCIENTIFIC INVESTIGATIONS. Students should formulate a testable hypothesis and demonstrate the logical connections between the scientific concepts guiding a hypothesis and the design of an experiment. They should demonstrate appropriate procedures, a knowledge base, and conceptual understanding of scientific investigations.

DESIGN AND CONDUCT SCIENTIFIC INVESTIGATIONS. Designing and conducting a scientific investigation requires introduction to the major concepts in the area being investigated, proper equipment, safety precautions, assistance with methodological problems, recommendations for use of technologies, clarification of ideas that guide the inquiry, and scientific knowledge obtained from sources other than the actual investigation. The investigation may also require student clarification of the question, method, controls, and variables; student organization and display of data; student revision of methods and explanations; and a public presentation of the results with a critical response from peers. Regardless of the scientific investigation performed, students must use evidence, apply logic, and construct an argument for their proposed explanations.

USE TECHNOLOGY AND MATHEMATICS TO IMPROVE INVESTIGATIONS AND COMMUNICATIONS. A variety of technologies, such as hand tools, measuring instruments, and calculators, should be an integral component of scientific investigations. The use of computers for the collection, analysis, and display of data is also a part of this standard. Mathematics plays an essential role in all aspects of an inquiry. For example, measurement is used for posing questions, formulas are used for developing explanations, and charts and graphs are used for communicating results.

FORMULATE AND REVISE SCIENTIFIC EXPLANATIONS AND MODELS USING LOGIC AND EVIDENCE. Student inquiries should culminate in formulating an explanation or model. Models should be physical, conceptual, and mathematical. In the process of answering the questions, the students should engage in discussions and arguments that result in the revision of their explanations. These discussions should be based on scientific knowledge, the use of logic, and evidence from their investigation.

RECOGNIZE AND ANALYZE ALTERNATIVE EXPLANATIONS AND MODELS. This aspect of the standard emphasizes the critical abilities of analyzing an argument by reviewing current scientific understanding, weighing the evidence, and examining the logic so as to decide which explanations and models are best. In other words, although there may be several plausible explanations, they do not all have equal weight. Students should be able to use scientific criteria to find the preferred explanations.

COMMUNICATE AND DEFEND A SCIENTIFIC ARGUMENT. Students in school science programs should develop the abilities associated with accurate and effective communication. These include writing and following procedures, expressing concepts, reviewing information, summarizing data, using language appropriately, developing

diagrams and charts, explaining statistical analysis, speaking clearly and logically, constructing a reasoned argument, and responding appropriately to critical comments. [See Teaching Standard B in Chapter 3]

UNDERSTANDINGS ABOUT SCIENTIFIC INQUIRY

- Scientists usually inquire about how physical, living, or designed systems function. Conceptual principles and knowledge guide scientific inquiries. Historical and current scientific knowledge influence the design and interpretation of investigations and the evaluation of proposed explanations made by other scientists. [See Unifying Concepts and Processes]
- Scientists conduct investigations for a wide variety of reasons. For example, they may wish to discover new aspects of the natural world, explain recently observed phenomena, or test the conclusions of prior investigations or the predictions of current theories.
- Scientists rely on technology to enhance the gathering and manipulation of data. New techniques and tools provide new evidence to guide inquiry and new methods to gather data, thereby contributing to the advance of science. The accuracy and precision of the data, and therefore the quality of the exploration, depends on the technology used. [See Content Standard E (grades 9-12)]
- Mathematics is essential in scientific inquiry. Mathematical tools and models guide and improve the posing of questions, gathering data, constructing explanations and communicating results. [See Program Standard C]

- Scientific explanations must adhere to criteria such as: a proposed explanation must be logically consistent; it must abide by the rules of evidence; it must be open to questions and possible modification; and it must be based on historical and current scientific knowledge.
- Results of scientific inquiry—new knowledge and methods—emerge from different types of investigations and public communication among scientists. In communicating and defending the results of scientific inquiry, arguments must be logical and demonstrate connections between natural phenomena, investigations, and the historical body of scientific knowledge. In addition, the methods and procedures that scientists used to obtain evidence must be clearly reported to enhance opportunities for further investigation.

Physical Science

CONTENT STANDARD B:

As a result of their activities in grades 9-12, all students should develop an understanding of

- Structure of atoms
- Structure and properties of matter
- Chemical reactions
- Motions and forces
- Conservation of energy and increase in disorder
- Interactions of energy and matter

DEVELOPING STUDENT UNDERSTANDING

High-school students develop the ability to relate the macroscopic properties of substances that they study in grades K-8 to the microscopic structure of substances. This development in understanding requires students to move among three domains of thought—the macroscopic world of observable phenomena, the microscopic world of molecules, atoms, and subatomic particles, and the symbolic and mathematical world of chemical formulas, equations, and symbols.

The relationship between properties of matter and its structure continues as a major component of study in 9-12 physical science. In the elementary grades, students studied the properties of matter and the classification of substances using easily observable properties. In the middle grades, they examined change of state, solutions, and simple chemical reactions, and developed enough knowledge and experience to define the properties of elements and compounds. When students observe and integrate a wide variety of evidence, such as seeing copper “dissolved” by an acid into a solution and then retrieved as pure copper when it is displaced by zinc, the idea that copper atoms are the same for any copper object begins to make sense. In each of these reactions, the knowledge that the mass of the substance does not change can be interpreted by assuming that the number of particles does not change during their rearrangement in the reaction. Studies of student understanding of molecules indicate that it will be difficult for them to comprehend the very small size and large number of particles involved. The connection between the particles and the chemical formulas that represent them is also often not clear.

It is logical for students to begin asking about the internal structure of atoms, and it

will be difficult, but important, for them to know “how we know.” Quality learning and the spirit and practice of scientific inquiry are lost when the evidence and argument for atomic structure are replaced by direct assertions by the teacher and text. Although many experiments are difficult to replicate in school, students can read some of the actual reports and examine the chain of evidence that led to the development of the current concept of the atom. The nature of the atom is far from totally understood; scientists continue to investigate atoms and have discovered even smaller constituents of which neutrons and protons are made.

Laboratory investigation of the properties of substances and their changes through a range of chemical interactions provide a basis for the high school graduate to understand a variety of reaction types and their applications, such as the capability to liberate elements from ore, create new drugs, manipulate the structure of genes, and synthesize polymers.

Understanding of the microstructure of matter can be supported by laboratory experiences with the macroscopic and microscopic world of forces, motion (including vibrations and waves), light, and electricity. These experiences expand upon the ones that the students had in the middle school and provide new ways of understanding the movement of muscles, the transport of materials across cell membranes, the behavior of atoms and molecules, communication technologies, and the movement of planets and galaxies. By this age, the concept of a force is better understood, but static forces in equilibrium and students’ intuitive ideas about forces on projectiles and satellites still resist change through instruction for a large percentage of the students.

On the basis of their experiences with energy transfers in the middle grades, high-

school students can investigate energy transfers quantitatively by measuring variables such as temperature change and kinetic energy. Laboratory investigations and descriptions of other experiments can help students understand the evidence that leads to the conclusion that energy is conserved. Although the operational distinction between temperature and heat can be fairly well understood after careful instruction, research with high-school students indicates that the idea that heat is the energy of random motion and vibrating molecules is difficult for students to understand.

GUIDE TO THE CONTENT STANDARD

Fundamental concepts and principles that underlie this standard include

STRUCTURE OF ATOMS

- Matter is made of minute particles called atoms, and atoms are composed of even smaller components. These components have measurable properties, such as mass and electrical charge. Each atom has a positively charged nucleus surrounded by negatively charged electrons. The electric force between the nucleus and electrons holds the atom together.
- The atom's nucleus is composed of protons and neutrons, which are much more massive than electrons. When an element has atoms that differ in the number of neutrons, these atoms are called different isotopes of the element.
- The nuclear forces that hold the nucleus of an atom together, at nuclear distances, are usually stronger than the electric forces that would make it fly apart. Nuclear reactions convert a fraction of the mass of interacting

particles into energy, and they can release much greater amounts of energy than atomic interactions. Fission is the splitting of a large nucleus into smaller pieces. Fusion is the joining of two nuclei at extremely high temperature and pressure, and is the process responsible for the energy of the sun and other stars.

- Radioactive isotopes are unstable and undergo spontaneous nuclear reactions, emitting particles and/or wavelike radiation. The decay of any one nucleus cannot be predicted, but a large group of identical nuclei decay at a predictable rate. This predictability can be used to estimate the age of materials that contain radioactive isotopes.

STRUCTURE AND PROPERTIES OF MATTER

- Atoms interact with one another by transferring or sharing electrons that are furthest from the nucleus. These outer electrons govern the chemical properties of the element.
- An element is composed of a single type of atom. When elements are listed in order according to the number of protons (called the atomic number), repeating patterns of physical and chemical properties identify families of elements with similar properties. This "Periodic Table" is a consequence of the repeating pattern of outermost electrons and their permitted energies.
- Bonds between atoms are created when electrons are paired up by being transferred or shared. A substance composed of a single kind of atom is called an element. The atoms may be bonded together into molecules or

crystalline solids. A compound is formed when two or more kinds of atoms bind together chemically.

- The physical properties of compounds reflect the nature of the interactions among its molecules. These interactions are determined by the structure of the molecule, including the constituent atoms and the distances and angles between them.
- Solids, liquids, and gases differ in the distances and angles between molecules or atoms and therefore the energy that binds them together. In solids the structure is nearly rigid; in liquids molecules or atoms move around each other but do not move apart; and in gases molecules or atoms move almost independently of each other and are mostly far apart.
- Carbon atoms can bond to one another in chains, rings, and branching networks to form a variety of structures, including synthetic polymers, oils, and the large molecules essential to life.

CHEMICAL REACTIONS

- Chemical reactions occur all around us, for example in health care, cooking, cosmetics, and automobiles. Complex chemical reactions involving carbon-based molecules take place constantly in every cell in our bodies. [See Content Standard C (grades 9-12)]
- Chemical reactions may release or consume energy. Some reactions such as the burning of fossil fuels release large amounts of energy by losing heat

and by emitting light. Light can initiate many chemical reactions such as photosynthesis and the evolution of urban smog.

- A large number of important reactions involve the transfer of either electrons (oxidation/reduction reactions) or hydrogen ions (acid/base reactions) between reacting ions, molecules, or atoms. In other reactions, chemical bonds are broken by heat or light to form very reactive radicals with electrons ready to form new bonds. Radical reactions control many processes such as the presence of ozone and greenhouse gases in the atmosphere, burning and processing of fossil fuels, the formation of polymers, and explosions.
- Chemical reactions can take place in time periods ranging from the few femtoseconds (10^{-15} seconds) required for an atom to move a fraction of a chemical bond distance to geologic time scales of billions of years. Reaction rates depend on how often the reacting atoms and molecules encounter one another, on the temperature, and on the properties—including shape—of the reacting species.
- Catalysts, such as metal surfaces, accelerate chemical reactions. Chemical reactions in living systems are catalyzed by protein molecules called enzymes.

MOTIONS AND FORCES

- Objects change their motion only when a net force is applied. Laws of motion

are used to calculate precisely the effects of forces on the motion of objects. The magnitude of the change in motion can be calculated using the relationship $F = ma$, which is independent of the nature of the force. Whenever one object exerts force on another, a force equal in magnitude and opposite in direction is exerted on the first object.

- Gravitation is a universal force that each mass exerts on any other mass. The strength of the gravitational attractive force between two masses is proportional to the masses and inversely proportional to the square of the distance between them.
- The electric force is a universal force that exists between any two charged objects. Opposite charges attract while like charges repel. The strength of the force is proportional to the charges, and, as with gravitation, inversely proportional to the square of the distance between them.
- Between any two charged particles, electric force is vastly greater than the gravitational force. Most observable forces such as those exerted by a coiled spring or friction may be traced to electric forces acting between atoms and molecules.
- Electricity and magnetism are two aspects of a single electromagnetic force. Moving electric charges produce magnetic forces, and moving magnets produce electric forces. These effects help students to understand electric motors and generators.

CONSERVATION OF ENERGY AND THE INCREASE IN DISORDER

- The total energy of the universe is constant. Energy can be transferred by collisions in chemical and nuclear reactions, by light waves and other radiations, and in many other ways. However, it can never be destroyed. As these transfers occur, the matter involved becomes steadily less ordered. [See Content Standard C (grades 9-12)]
- All energy can be considered to be either kinetic energy, which is the energy of motion; potential energy, which depends on relative position; or energy contained by a field, such as electromagnetic waves.
- Heat consists of random motion and the vibrations of atoms, molecules, and ions. The higher the temperature, the greater the atomic or molecular motion.
- Everything tends to become less organized and less orderly over time. Thus, in all energy transfers, the overall effect is that the energy is spread out uniformly. Examples are the transfer of energy from hotter to cooler objects by conduction, radiation, or convection and the warming of our surroundings when we burn fuels.

INTERACTIONS OF ENERGY AND MATTER

- Waves, including sound and seismic waves, waves on water, and light waves, have energy and can transfer energy when they interact with matter. [See Content Standard D (grades 9-12)]
- Electromagnetic waves result when a charged object is accelerated or

decelerated. Electromagnetic waves include radio waves (the longest wavelength), microwaves, infrared radiation (radiant heat), visible light, ultraviolet radiation, x-rays, and gamma rays. The energy of electromagnetic waves is carried in packets whose magnitude is inversely proportional to the wavelength.

- Each kind of atom or molecule can gain or lose energy only in particular discrete amounts and thus can absorb and emit light only at wavelengths corresponding to these amounts. These wavelengths can be used to identify the substance.
- In some materials, such as metals, electrons flow easily, whereas in insulating materials such as glass they can hardly flow at all. Semiconducting materials have intermediate behavior. At low temperatures some materials become superconductors and offer no resistance to the flow of electrons.

Life Science

CONTENT STANDARD C:

As a result of their activities in grades 9-12, all students should develop understanding of

- The cell
- Molecular basis of heredity
- Biological evolution
- Interdependence of organisms
- Matter, energy, and organization in living systems
- Behavior of organisms

DEVELOPING STUDENT UNDERSTANDING

Students in grades K-8 should have developed a foundational understanding of life sciences. In grades 9-12, students' understanding of biology will expand by incorporating more abstract knowledge, such as the structure and function of DNA, and more comprehensive theories, such as evolution. Students' understandings should encompass scales that are both smaller, for example, molecules, and larger, for example, the biosphere.

Teachers of science will have to make choices about what to teach that will most productively develop student understanding of the life sciences. All too often, the criteria for selection are not clear, resulting in an overemphasis on information and an underemphasis on conceptual understanding. In describing the content for life sciences, the national standards focus on a small number of general principles that can serve as the basis for teachers and students to develop further understanding of biology.

Because molecular biology will continue into the twenty-first century as a major frontier of science, students should understand the chemical basis of life not only for its own sake, but because of the need to take informed positions on some of the practical and ethical implications of human kind's capacity to manipulate living organisms.

In general, students recognize the idea of species as a basis for classifying organisms, but few students will refer to the genetic basis of species. Students may exhibit a general understanding of classification. However, when presented with unique organisms, students sometimes appeal to "everyday" classifications, such as viewing jellyfish as fish

because of the term “fish,” and penguins as amphibians because they live on land and in water.

Although students may indicate that they know about cells, they may say that living systems are made of cells but not molecules, because students often associate molecules only with physical science.

Students have difficulty with the fundamental concepts of evolution. For example, students often do not understand natural selection because they fail to make a conceptual connection between the occurrence of new variations in a population and the potential effect of those variations on the long-term survival of the species. One misconception that teachers may encounter involves students attributing new variations to

Many misconceptions about the process of natural selection can be changed through instruction.

an organism’s need, environmental conditions, or use. With some help, students can understand that, in general, mutations occur randomly and are selected because they help some organisms survive and produce more offspring. Other misconceptions center on a lack of understanding of how a population changes as a result of differential reproduction (some individuals producing more offspring), as opposed to all individuals in a population changing. Many misconceptions about the process of natural selection can be changed through instruction.

GUIDE TO THE CONTENT STANDARD

Fundamental concepts and principles that underlie this standard include

THE CELL

- Cells have particular structures that underlie their functions. Every cell is surrounded by a membrane that separates it from the outside world. Inside the cell is a concentrated mixture of thousands of different molecules which form a variety of specialized structures that carry out such cell functions as energy production, transport of molecules, waste disposal, synthesis of new molecules, and the storage of genetic material. [See Unifying Concepts and Processes]
- Most cell functions involve chemical reactions. Food molecules taken into cells react to provide the chemical constituents needed to synthesize other molecules. Both breakdown and synthesis are made possible by a large set of protein catalysts, called enzymes. The breakdown of some of the food molecules enables the cell to store energy in specific chemicals that are used to carry out the many functions of the cell.
- Cells store and use information to guide their functions. The genetic information stored in DNA is used to direct the synthesis of the thousands of proteins that each cell requires.
- Cell functions are regulated. Regulation occurs both through changes in the activity of the functions performed by proteins and through the selective expression of individual genes. This regulation allows cells to respond to their environment and to control and coordinate cell growth and division.

- Plant cells contain chloroplasts, the site of photosynthesis. Plants and many microorganisms use solar energy to combine molecules of carbon dioxide and water into complex, energy rich organic compounds and release oxygen to the environment. This process of photosynthesis provides a vital connection between the sun and the energy needs of living systems.
- Cells can differentiate, and complex multicellular organisms are formed as a highly organized arrangement of differentiated cells. In the development of these multicellular organisms, the progeny from a single cell form an embryo in which the cells multiply and differentiate to form the many specialized cells, tissues and organs that comprise the final organism. This differentiation is regulated through the expression of different genes.

THE MOLECULAR BASIS OF HEREDITY

- In all organisms, the instructions for specifying the characteristics of the organism are carried in DNA, a large polymer formed from subunits of four kinds (A, G, C, and T). The chemical and structural properties of DNA explain how the genetic information that underlies heredity is both encoded in genes (as a string of molecular “letters”) and replicated (by a templating mechanism). Each DNA molecule in a cell forms a single chromosome. [See Content Standard B (grades 9-12)]
- Most of the cells in a human contain two copies of each of 22 different chromosomes. In addition, there is a

pair of chromosomes that determines sex: a female contains two X chromosomes and a male contains one X and one Y chromosome.

Transmission of genetic information to offspring occurs through egg and sperm cells that contain only one representative from each chromosome pair. An egg and a sperm unite to form a new individual. The fact that the human body is formed from cells that contain two copies of each chromosome—and therefore two copies of each gene—explains many features of human heredity, such as how variations that are hidden in one generation can be expressed in the next.

- Changes in DNA (mutations) occur spontaneously at low rates. Some of these changes make no difference to the organism, whereas others can change cells and organisms. Only mutations in germ cells can create the variation that changes an organism’s offspring.

BIOLOGICAL EVOLUTION

- Species evolve over time. Evolution is the consequence of the interactions of (1) the potential for a species to increase its numbers, (2) the genetic variability of offspring due to mutation and recombination of genes, (3) a finite supply of the resources required for life, and (4) the ensuing selection by the environment of those offspring better able to survive and leave offspring. [See Unifying Concepts and Processes]
- The great diversity of organisms is the result of more than 3.5 billion years of evolution that has filled every available niche with life forms.

- Natural selection and its evolutionary consequences provide a scientific explanation for the fossil record of ancient life forms, as well as for the striking molecular similarities observed among the diverse species of living organisms.
- The millions of different species of plants, animals, and microorganisms that live on earth today are related by descent from common ancestors.
- Biological classifications are based on how organisms are related. Organisms are classified into a hierarchy of groups and subgroups based on similarities which reflect their evolutionary relationships. Species is the most fundamental unit of classification.

THE INTERDEPENDENCE OF ORGANISMS

- The atoms and molecules on the earth cycle among the living and nonliving components of the biosphere.
- Energy flows through ecosystems in one direction, from photosynthetic organisms to herbivores to carnivores and decomposers.
- Organisms both cooperate and compete in ecosystems. The interrelationships and interdependencies of these organisms may generate ecosystems that are stable for hundreds or thousands of years.
- Living organisms have the capacity to produce populations of infinite size, but environments and resources are finite. This fundamental tension has profound effects on the interactions between organisms.

- Human beings live within the world's ecosystems. Increasingly, humans modify ecosystems as a result of population growth, technology, and consumption. Human destruction of habitats through direct harvesting, pollution, atmospheric changes, and other factors is threatening current global stability, and if not addressed, ecosystems will be irreversibly affected.

MATTER, ENERGY, AND ORGANIZATION IN LIVING SYSTEMS

- All matter tends toward more disorganized states. Living systems require a continuous input of energy to maintain their chemical and physical organizations. With death, and the cessation of energy input, living systems rapidly disintegrate. [See Unifying Concepts and Processes]
- The energy for life primarily derives from the sun. Plants capture energy by absorbing light and using it to form strong (covalent) chemical bonds between the atoms of carbon-containing (organic) molecules. These molecules can be used to assemble larger molecules with biological activity (including proteins, DNA, sugars, and fats). In addition, the energy stored in bonds between the atoms (chemical energy) can be used as sources of energy for life processes.
- The chemical bonds of food molecules contain energy. Energy is released when the bonds of food molecules are broken and new compounds with lower energy bonds are formed. Cells usually store this energy temporarily in phosphate bonds of a small high-energy compound called ATP.

- The complexity and organization of organisms accommodates the need for obtaining, transforming, transporting, releasing, and eliminating the matter and energy used to sustain the organism.
- The distribution and abundance of organisms and populations in ecosystems are limited by the availability of matter and energy and the ability of the ecosystem to recycle materials.
- As matter and energy flows through different levels of organization of living systems—cells, organs, organisms, communities—and between living systems and the physical environment, chemical elements are recombined in different ways. Each recombination results in storage and dissipation of energy into the environment as heat. Matter and energy are conserved in each change.
- Organisms have behavioral responses to internal changes and to external stimuli. Responses to external stimuli can result from interactions with the organism’s own species and others, as well as environmental changes; these responses either can be innate or learned. The broad patterns of behavior exhibited by animals have evolved to ensure reproductive success. Animals often live in unpredictable environments, and so their behavior must be flexible enough to deal with uncertainty and change. Plants also respond to stimuli.
- Like other aspects of an organism’s biology, behaviors have evolved through natural selection. Behaviors often have an adaptive logic when viewed in terms of evolutionary principles.
- Behavioral biology has implications for humans, as it provides links to psychology, sociology, and anthropology.

THE BEHAVIOR OF ORGANISMS

- Multicellular animals have nervous systems that generate behavior. Nervous systems are formed from specialized cells that conduct signals rapidly through the long cell extensions that make up nerves. The nerve cells communicate with each other by secreting specific excitatory and inhibitory molecules. In sense organs, specialized cells detect light, sound, and specific chemicals and enable animals to monitor what is going on in the world around them.

Earth and Space Science

CONTENT STANDARD D:

As a result of their activities in grades 9-12, all students should develop an understanding of

- Energy in the earth system
- Geochemical cycles
- Origin and evolution of the earth system
- Origin and evolution of the universe

DEVELOPING STUDENT UNDERSTANDING

During the high school years, students continue studying the earth system introduced in grades 5-8. At grades 9-12, students focus on matter, energy, crustal dynamics, cycles, geochemical processes, and the expanded time scales necessary to understand events in the earth system. Driven by sunlight and earth's internal heat, a variety of cycles connect and continually circulate energy and material through the components of the earth system. Together, these cycles establish the structure of the earth system and regulate earth's climate. In grades 9-12, students review the water cycle as a carrier of material, and deepen their understanding of this key cycle to see that it is also an important agent for energy transfer. Because it plays a central role in establishing and maintaining earth's climate and the production of many mineral and fossil fuel resources, the students' explorations are also directed toward the carbon cycle. Students use and extend their understanding of how the processes of radiation, convection, and conduction transfer energy through the earth system.

In studying the evolution of the earth system over geologic time, students develop a deeper understanding of the evidence, first introduced in grades 5-8, of earth's past and unravel the interconnected story of earth's dynamic crust, fluctuating climate, and evolving life forms. The students' studies develop the concept of the earth system existing in a state of dynamic equilibrium. They will discover that while certain properties of the earth system may fluctuate on short or long time scales, the earth system will generally stay within a certain narrow range for millions of years. This long-term stability can be understood through the working of planetary geochemical cycles and

the feedback processes that help to maintain or modify those cycles.

As an example of this long-term stability, students find that the geologic record suggests that the global temperature has fluctuated within a relatively narrow range, one that has been narrow enough to enable life to survive and evolve for over three billion years. They come to understand that some of the small temperature fluctuations have produced what we perceive as dramatic effects in the earth system, such as the ice ages and the extinction of entire species. They explore the regulation of earth's global temperature by the water and carbon cycles. Using this background, students can examine environmental changes occurring today and make predictions about future temperature fluctuations in the earth system. Looking outward into deep space and deep time, astronomers have shown that we live in a vast and ancient universe. Scientists assume that the laws of matter are the same in all parts of the universe and over billions of

...as many as half of the students in this age group will need many concrete examples and considerable help in following the multistep logic necessary to develop the understandings described here.

years. It is thus possible to understand the structure and evolution of the universe through laboratory experiments and current observations of events and phenomena in the universe.

Until this grade level, astronomy has been largely restricted to the behavior of objects in the solar system. In grades 9-12, the study of the universe becomes more abstract as students expand their ability to comprehend large distances, long time scales, and the nature of nuclear reactions. The age of the

universe and its evolution into galaxies, stars, and planets—and eventually life on earth—fascinates and challenges students.

The challenge of helping students learn the content of this standard will be to present understandable evidence from sources that range over immense timescales—and from studies of the earth’s interior to observations from outer space. Many students are capable of doing this kind of thinking, but as many as half will need concrete examples and considerable help in following the multistep logic necessary to develop the understandings described in this standard. Because direct experimentation is usually not possible for many concepts associated with earth and space science, it is important to maintain the spirit of inquiry by focusing the teaching on questions that can be answered by using observational data, the knowledge base of science, and processes of reasoning.

GUIDE TO THE CONTENT STANDARD

Fundamental concepts and principles that underlie this standard include

ENERGY IN THE EARTH SYSTEM

- Earth systems have internal and external sources of energy, both of which create heat. The sun is the major external source of energy. Two primary sources of internal energy are the decay of radioactive isotopes and the gravitational energy from the earth’s original formation.
- The outward transfer of earth’s internal heat drives convection circulation in the mantle that propels the plates comprising earth’s surface across the face of the globe. [See content Standard B (grades 9-12)]

- Heating of earth’s surface and atmosphere by the sun drives convection within the atmosphere and oceans, producing winds and ocean currents.
- Global climate is determined by energy transfer from the sun at and near the earth’s surface. This energy transfer is influenced by dynamic processes such as cloud cover and the earth’s rotation, and static conditions such as the position of mountain ranges and oceans.

GEOCHEMICAL CYCLES

- The earth is a system containing essentially a fixed amount of each stable chemical atom or element. Each element can exist in several different chemical reservoirs. Each element on earth moves among reservoirs in the solid earth, oceans, atmosphere, and organisms as part of geochemical cycles.
- Movement of matter between reservoirs is driven by the earth’s internal and external sources of energy. These movements are often accompanied by a change in the physical and chemical properties of the matter. Carbon, for example, occurs in carbonate rocks such as limestone, in the atmosphere as carbon dioxide gas, in water as dissolved carbon dioxide, and in all organisms as complex molecules that control the chemistry of life.

THE ORIGIN AND EVOLUTION OF THE EARTH SYSTEM

- The sun, the earth, and the rest of the solar system formed from a nebular cloud of dust and gas 4.6 billion years ago. The early earth was very different from the planet we live on today.

It is important to maintain the spirit of inquiry by focusing the teaching on questions that can be answered by using observational data, the knowledge base of science, and processes of reasoning.

- Geologic time can be estimated by observing rock sequences and using fossils to correlate the sequences at various locations. Current methods include using the known decay rates of radioactive isotopes present in rocks to measure the time since the rock was formed.
- Interactions among the solid earth, the oceans, the atmosphere, and organisms have resulted in the ongoing evolution of the earth system. We can observe some changes such as earthquakes and volcanic eruptions on a human time scale, but many processes such as mountain building and plate movements take place over hundreds of millions of years.
- Evidence for one-celled forms of life—the bacteria—extends back more than 3.5 billion years. The evolution of life caused dramatic changes in the composition of the earth's atmosphere, which did not originally contain oxygen.

THE ORIGIN AND EVOLUTION OF THE UNIVERSE

- The origin of the universe remains one of the greatest questions in science. The “big bang” theory places the origin between 10 and 20 billion years ago, when the universe began in a hot dense state; according to this theory, the universe has been expanding ever since. [See Content Standard A (grades 9-12)]
- Early in the history of the universe, matter, primarily the light atoms hydrogen and helium, clumped together by gravitational attraction to form countless trillions of stars. Billions of galaxies, each of which is a gravitationally bound cluster of billions of stars, now form most of the visible mass in the universe.
- Stars produce energy from nuclear reactions, primarily the fusion of hydrogen to form helium. These and other processes in stars have led to the formation of all the other elements.

Science and Technology

CONTENT STANDARD E:

As a result of activities in grades 9-12, all students should develop

- Abilities of technological design
- Understandings about science and technology

DEVELOPING STUDENT ABILITIES AND UNDERSTANDING

This standard has two equally important parts—developing students’ abilities of technological design and developing students’ understanding about science and technology. Although these are science education standards, the relationship between science and technology is so close that any presentation of science without developing an understanding of technology would portray an inaccurate picture of science.

In the course of solving any problem where students try to meet certain criteria within constraints, they will find that the ideas and methods of science that they know, or can learn, can be powerful aids. Students also find that they need to call on other sources of knowledge and skill, such as cost, risk, and benefit analysis, and aspects of critical thinking and creativity. Learning experiences associated with this standard should include examples of technological achievement in which science has played a part and examples where technological advances contributed directly to scientific progress.

Students can understand and use the design model outlined in this standard. Students respond positively to the concrete, practical, outcome orientation of design problems before they are able to engage in the abstract, theoretical nature of many scientific inquiries. In general, high school students do not distinguish between the roles of science and technology. Helping them do so is implied by this standard. This lack of distinction between science and technology is further confused by students’ positive perceptions of science, as when they associate it with medical research and use the common phrase “scientific progress.” However, their association of technology is often with environmental problems and another common phrase, “technological problems.” With regard to the

connection between science and technology, students as well as many adults and teachers of science indicate a belief that science influences technology. This belief is captured by the common and only partially accurate definition “technology is applied science.” Few students understand that technology influences science. Unraveling these misconceptions of science and technology and developing accurate concepts of the role, place, limits, possibilities and relationships of science and technology is the challenge of this standard.

The choice of design tasks and related learning activities is an important and difficult part of addressing this standard. In choosing technological learning activities, teachers of science will have to bear in mind some important issues. For example, whether to involve students in a full or partial design problem; or whether to engage them in meeting a need through technology or in studying the technological work of others. Another issue is how to select a task that brings out the various ways in which science and technology interact, providing a basis for reflection on the nature of technology while learning the science concepts involved.

In grades 9-12, design tasks should explore a range of contexts including both those immediately familiar in the homes, school, and community of the students and those from wider regional, national, or global contexts. The tasks should promote different ways to tackle the problems so that different design solutions can be implemented by different students. Successful completion of design problems requires that the students meet criteria while addressing conflicting constraints. Where constructions are involved, these might draw on technical skills and understandings developed within the science program, technical and craft skills developed in other school work, or require developing new skills.

Over the high school years, the tasks should cover a range of needs, of materials, and of different aspects of science. For example, a suitable design problem could include assembling electronic components to control a sequence of operations or analyzing the features of different athletic shoes to see the criteria and constraints imposed by the sport, human anatomy, and materials. Some tasks should involve science ideas drawn from more than one field of science. These can be complex, for example, a machine that incorporates both mechanical and electrical control systems.

Although some experiences in science and technology will emphasize solving problems and meeting needs by focusing on products, experience also should include problems about system design, cost, risk, benefit, and very importantly, tradeoffs.

Because this study of technology occurs within science courses, the number of these activities must be limited. Details specified in this standard are criteria to ensure quality and balance in a small number of tasks and are not meant to require a large number of such activities. Many abilities and understandings of this standard can be developed as part of activities designed for other content standards.

GUIDE TO THE CONTENT STANDARD

Fundamental abilities and concepts that underlie this standard include

ABILITIES OF TECHNOLOGICAL DESIGN

IDENTIFY A PROBLEM OR DESIGN AN OPPORTUNITY. Students should be able to identify new problems or needs and to change and improve current technological designs. [See Content Standard A (grades 9-12)]

PROPOSE DESIGNS AND CHOOSE BETWEEN ALTERNATIVE SOLUTIONS.

Students should demonstrate thoughtful planning for a piece of technology or technique. Students should be introduced to the roles of models and simulations in these processes.

IMPLEMENT A PROPOSED SOLUTION.

A variety of skills can be needed in proposing a solution depending on the type of technology that is involved. The construction of artifacts can require the skills of cutting, shaping, treating, and joining common materials—such as wood, metal, plastics, and textiles. Solutions can also be implemented using computer software.

EVALUATE THE SOLUTION AND ITS

CONSEQUENCES. Students should test any solution against the needs and criteria it was designed to meet. At this stage, new criteria not originally considered may be reviewed.

COMMUNICATE THE PROBLEM, PROCESS, AND SOLUTION. Students should present their results to students, teachers, and others in a variety of ways, such as orally, in writing, and in other forms—including models, diagrams, and demonstrations. [See Teaching Standard B]

UNDERSTANDINGS ABOUT SCIENCE AND TECHNOLOGY

- Scientists in different disciplines ask different questions, use different methods of investigation, and accept different types of evidence to support their explanations. Many scientific investigations require the contributions of individuals from different disciplines, including engineering. New disciplines

of science, such as geophysics and biochemistry often emerge at the interface of two older disciplines.

- Science often advances with the introduction of new technologies. Solving technological problems often results in new scientific knowledge. New technologies often extend the current levels of scientific understanding and introduce new areas of research.
- Creativity, imagination, and a good knowledge base are all required in the work of science and engineering.
- Science and technology are pursued for different purposes. Scientific inquiry is driven by the desire to understand the natural world, and technological design is driven by the need to meet human needs and solve human problems. Technology, by its nature, has a more direct effect on society than science because its purpose is to solve human problems, help humans adapt, and fulfill human aspirations. Technological solutions may create new problems. Science, by its nature, answers questions that may or may not directly influence humans. Sometimes scientific advances challenge people's beliefs and practical explanations concerning various aspects of the world.
- Technological knowledge is often not made public because of patents and the financial potential of the idea or invention. Scientific knowledge is made public through presentations at professional meetings and publications in scientific journals.

Science in Personal and Social Perspectives

CONTENT STANDARD F:

As a result of activities in grades 9-12, all students should develop understanding of

- Personal and community health
- Population growth
- Natural resources
- Environmental quality
- Natural and human-induced hazards
- Science and technology in local, national, and global challenges

DEVELOPING STUDENT UNDERSTANDING

The organizing principles for this standard do not identify specific personal and societal challenges, rather they form a set of conceptual organizers, fundamental understandings, and implied actions for most contemporary issues. The organizing principles apply to local as well as global phenomena and represent challenges that occur on scales that vary from quite short—for example, natural hazards—to very long—for example, the potential result of global changes.

By grades 9-12, many students have a fairly sound understanding of the overall functioning of some human systems, such as the digestive, respiratory, and circulatory systems. They might not have a clear understanding of others, such as the human nervous, endocrine, and immune systems. Therefore, students may have difficulty with specific mechanisms and processes related to health issues.

The organizing principles apply to local as well as global phenomena.

Most high school students have a concept of populations of organisms, but they have a poorly developed understanding of the relationships among populations within a community and connections between populations and other ideas such as competition for resources. Few students understand and apply the idea of interdependence when considering interactions among populations, environments, and resources. If, for example, students are asked about the size of populations and why some populations would be larger, they often simply describe rather than reason about interdependence or energy flow.

Students may exhibit a general idea of cycling matter in ecosystems, but they may center on short chains of the cyclical process and express the misconception that matter is created and destroyed at each step of the cycle rather than undergoing continuous transformation. Instruction using charts of the flow of matter through an ecosystem and emphasizing the reasoning involved with the entire process may enable students to develop more accurate conceptions.

Many high-school students hold the view that science should inform society about various issues and society should set policy about what research is important. In general, students have rather simple and naive ideas about the interactions between science and society. There is some research supporting the idea that S-T-S (science, technology, and society) curriculum helps improve student understanding of various aspects of science- and technology-related societal challenges.

GUIDE TO THE CONTENT STANDARD

Fundamental concepts and principles that underlie this standard include

PERSONAL AND COMMUNITY HEALTH

- Hazards and the potential for accidents exist. Regardless of the environment, the possibility of injury, illness, disability, or death may be present. Humans have a variety of mechanisms—sensory, motor, emotional, social, and technological—that can reduce and modify hazards. [See Content Standard C (grades 9-12)]
- The severity of disease symptoms is dependent on many factors, such as human resistance and the virulence of the disease-producing organism. Many diseases can be prevented, controlled, or cured. Some diseases, such as cancer, result from specific body dysfunctions and cannot be transmitted.
- Personal choice concerning fitness and health involves multiple factors. Personal goals, peer and social pressures, ethnic and religious beliefs, and understanding of biological consequences can all influence decisions about health practices.
- An individual's mood and behavior may be modified by substances. The modification may be beneficial or detrimental depending on the motives, type of substance, duration of use, pattern of use, level of influence, and short- and long-term effects. Students should understand that drugs can result in physical dependence and can increase the risk of injury, accidents, and death.

- Selection of foods and eating patterns determine nutritional balance. Nutritional balance has a direct effect on growth and development and personal well-being. Personal and social factors—such as habits, family income, ethnic heritage, body size, advertising, and peer pressure—influence nutritional choices.
- Families serve basic health needs, especially for young children. Regardless of the family structure, individuals have families that involve a variety of physical, mental, and social relationships that influence the maintenance and improvement of health.
- Sexuality is basic to the physical, mental, and social development of humans. Students should understand that human sexuality involves biological functions, psychological motives, and cultural, ethnic, religious, and technological influences. Sex is a basic and powerful force that has consequences to individuals' health and to society. Students should understand various methods of controlling the reproduction process and that each method has a different type of effectiveness and different health and social consequences.

POPULATION GROWTH

- Populations grow or decline through the combined effects of births and deaths, and through emigration and immigration. Populations can increase through linear or exponential growth, with effects on resource use and environmental pollution.
- Various factors influence birth rates and fertility rates, such as average levels of affluence and education, importance of children in the labor force, education and employment of women, infant mortality rates, costs of raising children, availability and reliability of birth control methods, and religious beliefs and cultural norms that influence personal decisions about family size.
- Populations can reach limits to growth. Carrying capacity is the maximum number of individuals that can be supported in a given environment. The limitation is not the availability of space, but the number of people in relation to resources and the capacity of earth systems to support human beings. Changes in technology can cause significant changes, either positive or negative, in carrying capacity.

NATURAL RESOURCES

- Human populations use resources in the environment in order to maintain and improve their existence. Natural resources have been and will continue to be used to maintain human populations.
- The earth does not have infinite resources; increasing human consumption places severe stress on the natural processes that renew some resources, and it depletes those resources that cannot be renewed.
- Humans use many natural systems as resources. Natural systems have the capacity to reuse waste, but that capacity is limited. Natural systems can change to an extent that exceeds the limits of organisms to adapt naturally or humans to adapt technologically.

ENVIRONMENTAL QUALITY

- Natural ecosystems provide an array of basic processes that affect humans. Those processes include maintenance of the quality of the atmosphere, generation of soils, control of the hydrologic cycle, disposal of wastes, and recycling of nutrients. Humans are changing many of these basic processes, and the changes may be detrimental to humans. [See Content Standard C (grades 9-12)]
- Materials from human societies affect both physical and chemical cycles of the earth.

- Many factors influence environmental quality. Factors that students might investigate include population growth, resource use, population distribution, over consumption, the capacity of technology to solve problems, poverty, the role of economic, political, and religious views, and different ways humans view the earth.

NATURAL AND HUMAN-INDUCED HAZARDS

- Normal adjustments of earth may be hazardous for humans. Humans live at the interface between the atmosphere driven by solar energy and the upper mantle where convection creates changes in the earth's solid crust. As societies have grown, become stable, and come to value aspects of the environment, vulnerability to natural processes of change has increased. [See Content Standard D (grades 9-12)]
- Human activities can enhance potential for hazards. Acquisition of resources, urban growth, and waste disposal can accelerate rates of natural change.
- Some hazards, such as earthquakes, volcanic eruptions, and severe weather, are rapid and spectacular. But there are slow and progressive changes that also result in problems for individuals and societies. For example, change in stream channel position, erosion of bridge foundations, sedimentation in lakes and harbors, coastal erosions, and continuing erosion and wasting of soil and landscapes can all negatively affect society.

- Natural and human-induced hazards present the need for humans to assess potential danger and risk. Many changes in the environment designed by humans bring benefits to society, as well as cause risks. Students should understand the costs and trade-offs of various hazards—ranging from those with minor risk to a few people to major catastrophes with major risk to many people. The scale of events and the accuracy with which scientists and engineers can (and cannot) predict events are important considerations.
- Individuals and society must decide on proposals involving new research and the introduction of new technologies into society. Decisions involve assessment of alternatives, risks, costs, and benefits and consideration of who benefits and who suffers, who pays and gains, and what the risks are and who bears them. Students should understand the appropriateness and value of basic questions —“What can happen?”—“What are the odds?”—and “How do scientists and engineers know what will happen?”

SCIENCE AND TECHNOLOGY IN LOCAL, NATIONAL, AND GLOBAL CHALLENGES

- Science and technology are essential social enterprises, but alone they can only indicate what can happen, not what should happen. The latter involves human decisions about the use of knowledge. [See Content Standard E (grades 9-12)]
- Understanding basic concepts and principles of science and technology should precede active debate about the economics, policies, politics, and ethics of various science- and technology-related challenges. However, understanding science alone will not resolve local, national, or global challenges.
- Progress in science and technology can be affected by social issues and challenges. Funding priorities for specific health problems serve as examples of ways that social issues influence science and technology.
- Humans have a major effect on other species. For example, the influence of humans on other organisms occurs through land use—which decreases space available to other species—and pollution—which changes the chemical composition of air, soil, and water.

SCIENCE AS INQUIRY STANDARDS

In the vision presented by the *Standards*, inquiry is a step beyond “science as a process,” in which students learn skills, such as observation, inference, and experimentation. The new vision includes the “processes of science” and requires that students combine processes and scientific knowledge as they use scientific reasoning and critical thinking to develop their understanding of science. Engaging students in inquiry helps students develop

- Understanding of scientific concepts.
- An appreciation of “how we know” what we know in science.
- Understanding of the nature of science.
- Skills necessary to become independent inquirers about the natural world.
- The dispositions to use the skills, abilities, and attitudes associated with science.

Science as inquiry is basic to science education and a controlling principle in the ultimate organization and selection of students’ activities. The standards on inquiry highlight the ability to conduct inquiry and develop understanding about scientific inquiry. Students at all grade levels and in every domain of science should have the opportunity to use scientific inquiry and develop the ability to think and act in ways associated with inquiry, including asking questions, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, constructing and analyzing alternative explanations, and communicating scientific arguments. Table 6.1 shows the standards for inquiry. The science as inquiry standards are described in terms of activities resulting in student development of certain abilities and in terms of student understanding of inquiry.

TABLE 6.1. SCIENCE AS INQUIRY STANDARDS

LEVELS K-4	LEVELS 5-8	LEVELS 9-12
Abilities necessary to do scientific inquiry	Abilities necessary to do scientific inquiry	Abilities necessary to do scientific inquiry
Understanding about scientific inquiry	Understanding about scientific inquiry	Understanding about scientific inquiry

History and Nature of Science

CONTENT STANDARD G:

As a result of activities in grades 9-12, all students should develop understanding of

- Science as a human endeavor
- Nature of scientific knowledge
- Historical perspectives

DEVELOPING STUDENT UNDERSTANDING

The *National Science Education Standards* use history to elaborate various aspects of scientific inquiry, the nature of science, and science in different historical and cultural perspectives. The standards on the history and nature of science are closely aligned with the nature of science and historical episodes described in the American Association for the Advancement of Science *Benchmarks for Science Literacy*. Teachers of science can incorporate other historical examples that may

Scientists have ethical traditions. Scientists value peer review, truthful reporting about the methods and outcomes of investigations, and making public the results of work.

accommodate different interests, topics, disciplines, and cultures—as the intention of the standard is to develop an understanding of the human dimensions of science, the nature of scientific knowledge, and the enterprise of science in society—and not to develop a comprehensive understanding of history.

Little research has been reported on the use of history in teaching about the nature of

science. But learning about the history of science might help students to improve their general understanding of science.

Teachers should be sensitive to the students' lack of knowledge and perspective on time, duration, and succession when it comes to historical study. High school students may have difficulties understanding the views of historical figures. For example, students may think of historical figures as inferior because they did not understand what we do today. This “Whiggish perspective” seems to hold for some students with regard to scientists whose theories have been displaced.

GUIDE TO THE CONTENT STANDARD

Fundamental concepts and principles that underlie this standard include

SCIENCE AS A HUMAN ENDEAVOR

- Individuals and teams have contributed and will continue to contribute to the scientific enterprise. Doing science or engineering can be as simple as an individual conducting field studies or as complex as hundreds of people working on a major scientific question or technological problem. Pursuing science as a career or as a hobby can be both fascinating and intellectually rewarding.
- Scientists have ethical traditions. Scientists value peer review, truthful reporting about the methods and outcomes of investigations, and making public the results of work. Violations of such norms do occur, but scientists responsible for such violations are censured by their peers.

- Scientists are influenced by societal, cultural, and personal beliefs and ways of viewing the world. Science is not separate from society but rather science is a part of society.

NATURE OF SCIENTIFIC KNOWLEDGE

- Science distinguishes itself from other ways of knowing and from other bodies of knowledge through the use of empirical standards, logical arguments, and skepticism, as scientists strive for the best possible explanations about the natural world.
- Scientific explanations must meet certain criteria. First and foremost, they must be consistent with experimental and observational evidence about nature, and must make accurate predictions, when appropriate, about systems being studied. They should also be logical, respect the rules of evidence, be open to criticism, report methods and procedures, and make knowledge public. Explanations on how the natural world changes based on myths, personal beliefs, religious values, mystical inspiration, superstition, or authority may be personally useful and socially relevant, but they are not scientific.
- Because all scientific ideas depend on experimental and observational confirmation, all scientific knowledge is, in principle, subject to change as new evidence becomes available. The core ideas of science such as the conservation of energy or the laws of motion have been subjected to a wide

variety of confirmations and are therefore unlikely to change in the areas in which they have been tested.

Science distinguishes itself from other ways of knowing and from other bodies of knowledge through the use of empirical standards, logical arguments, and skepticism.

In areas where data or understanding are incomplete, such as the details of human evolution or questions surrounding global warming, new data may well lead to changes in current ideas or resolve current conflicts. In situations where information is still fragmentary, it is normal for scientific ideas to be incomplete, but this is also where the opportunity for making advances may be greatest.

HISTORICAL PERSPECTIVES

- In history, diverse cultures have contributed scientific knowledge and technologic inventions. Modern science began to evolve rapidly in Europe several hundred years ago. During the past two centuries, it has contributed significantly to the industrialization of Western and non-Western cultures. However, other, non-European cultures have developed scientific ideas and solved human problems through technology.

- Usually, changes in science occur as small modifications in extant knowledge. The daily work of science and engineering results in incremental advances in our understanding of the world and our ability to meet human needs and aspirations. Much can be learned about the internal workings of science and the nature of science from study of individual scientists, their daily work, and their efforts to advance scientific knowledge in their area of study.
- Occasionally, there are advances in science and technology that have important and long-lasting effects on science and society. Examples of such advances include the following
 - Copernican revolution*
 - Newtonian mechanics*
 - Relativity*
 - Geologic time scale*
 - Plate tectonics*
 - Atomic theory*
 - Nuclear physics*
 - Biological evolution*
 - Germ theory*
 - Industrial revolution*
 - Molecular biology*
 - Information and communication*
 - Quantum theory*
 - Galactic universe*
 - Medical and health technology*
- The historical perspective of scientific explanations demonstrates how scientific knowledge changes by evolving over time, almost always building on earlier knowledge.

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The Entries

Entries contain the directions for each entry. Entry directions include the *Standards* that are the foundation for the entry, suggestions for planning your response and choosing evidence of your teaching practice, questions that must be answered as part of your Written Commentary, and an explanation of scoring criteria for the entry.

Entry 1

In the *Adolescence and Young Adulthood/Science* portfolio, the entry based on student work samples is **Entry 1: Teaching a Major Idea Over Time**. In this entry, you choose three instructional activities, related instructional materials, two student responses to each activity, a culminating assessment, and submit a Written Commentary. Your submission should demonstrate your strategies for linking instructional activities together to engage students in building conceptual understanding of one major idea in science.

Entry 2

In the *Adolescence and Young Adulthood/Science* portfolio, there are two entries based on video evidence, one of which is **Entry 2: Active Scientific Inquiry**. In this entry, you submit a 20-minute video recording of your interactions with students engaged in different stages of the inquiry process during a scientific investigation. You will also provide a Written Commentary that analyzes your teaching throughout this process of scientific inquiry.

Entry 3

Entry 3: Whole Class Discussions about Science is the other *Adolescence and Young Adulthood/Science* entry based on video evidence. In this entry, you submit a 20-minute video recording of your interactions with students as they actively gain an ability to understand and use scientific concepts and problem-solving skills. You will also provide a Written Commentary that analyzes your teaching through whole class discussion.

Entry 4

In the *Adolescence and Young Adulthood/Science* portfolio, the entry based on documented accomplishments is **Entry 4: Documented Accomplishments: Contributions to Student Learning**. In this entry, you illustrate your partnerships with students' families and community, and your development as a learner and collaborator with other professionals by submitting descriptions and documentation of your activities and accomplishments in those areas. Your description must make the connection between each accomplishment and its impact on student learning.

Teaching a Major Idea Over Time

Accomplished Adolescence and Young Adulthood/Science teachers know how students learn, know their students as individuals, and determine students' understandings of science as well as their individual learning backgrounds. Their appreciation of each student as an individual science learner is rooted in their extensive experience working with students and a broader knowledge of the learning characteristics and developmental tendencies of the adolescents and young adults they teach.

Accomplished Adolescence and Young Adulthood/Science teachers have a broad and current knowledge of science and science education, along with in-depth knowledge of one of the subfields of science, which they use to set important and appropriate learning goals. They employ a deliberately sequenced variety of research-driven instructional strategies and select, adapt, and create instructional resources to support active student exploration and understanding of science. In planning and sequencing curriculum and instruction, accomplished science teachers understand the need to give students access to the fundamental facts, concepts, laws, and theories of science without burying them under an avalanche of esoteric detail, and they thoughtfully organize curriculum and make pedagogical decisions with this need in mind.

Accomplished Adolescence and Young Adulthood/Science teachers create opportunities for students to examine the human contexts of science, including its history, reciprocal relationship with technology, ties to mathematics, and impacts on society so that students make connections across the disciplines of science, among other subject areas, and in their lives.

Accomplished Adolescence and Young Adulthood/Science teachers employ multiple, ongoing methods that are fair and accurate to analyze the progress of individual students in light of well-defined learning goals, and their students achieve meaningful and demonstrable gains in the learning of science. Teachers clearly communicate these gains to appropriate audiences. Assessment—the process of using formal and informal methods of data gathering to determine students' growing scientific literacy—is a crucial, ongoing component of the pedagogy of the accomplished science teacher, used to inform instruction and improve student learning.

Accomplished Adolescence and Young Adulthood/Science teachers continually analyze, evaluate, and strengthen their practice to improve the quality of their students' learning experiences.

The following *Standards* represent the focus of this entry:

- I. *Understanding Students*
- II. *Understanding Science*
- III. *Understanding Science Teaching*

- VIII. *Making Connections in Science*
- IX. *Assessing for Results*
- X. *Reflecting on Teaching and Learning*

Entry 1 directions include the following sections:

What Do I Need To Do?
How Will My Response Be Scored?
Composing My Written Commentary
Making Good Choices
Format Specifications
Cover Sheets and Forms

Entry 1

What Do I Need To Do?

In this entry, you will demonstrate how the design and actual practice of your teaching over time works to further students' understanding of a major idea in science. You will provide evidence of your ability to select and justify the appropriateness of a major idea in science for your students, and to plan and implement sequenced instruction to facilitate your students' understanding of that idea. In your response, you will analyze and assess student progress toward understanding the major idea and reflect on how your sequence of instructional strategies works to further students' science learning over time.

For this entry, you must submit the following:

- **Written Commentary (13 pages maximum)**
that provides a context for your instructional choices and describes, analyzes, and reflects on the student work and your teaching.
- **Three Instructional Activities**
and related instructional materials with two student responses to each of them. At least one of the activities must show connections to technology. Include any written feedback you provided to the student.
- **Culminating Assessment (2 pages maximum)**
instrument or a description of any alternative means of assessment.
- **All forms required for this entry can be found in Forms & Specs.**

See Making Good Choices and Format Specifications for more detail regarding each of the above.

The instructional period must range from a minimum of three weeks to a maximum of twelve weeks. In your response, you will analyze student progress toward understanding the major idea and reflect on how your sequence of instructional strategies works to further students' science learning over time.

It may be helpful to have a colleague help you record video, watch and analyze the video recordings, read and comment on your analyses and on the student work you have chosen. **However**, all of the work you submit as part of your response to **any entry must be yours and yours alone**. This means that your written analyses, the student work you submit, and your video recordings must all feature teaching that **you** did and work that **you** oversaw. For more detailed information, see Ethics and Collaboration in the *Intro* and the National Board's Ethics Policy.

Entry 1

How Will My Response Be Scored?

Your response to this entry will be scored based on the following *NBPTS Adolescence and Young Adulthood/Science Standards*:

- I. *Understanding Students*
- II. *Understanding Science*
- III. *Understanding Science Teaching*

- VIII. *Making Connections in Science*
- IX. *Assessing for Results*
- X. *Reflecting on Teaching and Learning*

It is strongly recommended that you review these standards before you begin and periodically as you prepare your response to this entry.

Your response will be judged on the extent to which it **provides clear, consistent, and convincing evidence of your ability to select and justify the appropriateness of a major idea in science, plan and implement sequenced instruction, and provide appropriate assessment to facilitate student understanding.**

The Level 4 rubric, the highest level of the rubric, specifically requires **clear, consistent, and convincing evidence** in your response that you:

- display an ability to clearly establish the selected major idea and related learning goals as central to science and justify them as appropriate for specific students and specific teaching context;
- can select instructional activities that work together to further the stated learning goals in a logical sequence that allows students to actively explore the major idea, deepens students' conceptual understanding of the major idea, and situates the major idea within a broader context, establishing direct connections to other disciplines, and to students' prior knowledge and experience;
- can link together an instructional sequence that reflects consideration of the unique learning needs of students, shows high expectations for all students, and demonstrates proficiency in recognizing the challenges of teaching this idea and sequence, including assessment of potential student misunderstandings and appropriate pedagogical responses;
- possess a strong command of science content linked with appropriate science pedagogy;
- can accurately describe, analyze, and evaluate students' work, showing knowledge of students and insight into their learning and provide appropriate feedback;
- are resourceful in adapting and/or creating rich and appropriate instructional resources to support and extend student learning;
- use a variety of appropriate technologies to enhance student learning about science;
- use an integrated approach to assessment that furthers high and appropriate learning goals and enhances instruction;
- can explain a rationale for your culminating assessment given your instructional context and the stated learning goals for these students and reflect on its success; and

- engage in reflective thinking in which you describe your practice accurately, analyze it fully and thoughtfully, and reflect on its implications and significance for future teaching.

Entry 1

Composing My Written Commentary

The Written Commentary has been divided into sections with specific questions to help organize and direct your response. Your Written Commentary must address the following italicized questions and be organized into four sections using the headings that appear in boldface below.

1. Instructional Context
2. Planning Instruction
3. Analysis of Instruction and Student Work
4. Reflection

Consistent headings will help assessors locate the required information more easily. Statements in plain text that immediately follow an italicized question will assist you in interpreting the question. It is not necessary to include the italicized questions within the body of your response.

The entire Written Commentary must be **no longer than 13 typed pages**. Suggested page lengths for each section are included to help you make decisions about how much to write for each of the four sections. (See Format Specifications for more detail.)

1. Instructional Context

This information is in addition to the information provided on the Contextual Information Sheet, which focuses on the school/district at large. In this section, address the following questions about your selected class:

- *What are the number, ages, and grades of the students in the class featured in this entry and subject matter of the class?* (Example: 32 students in Grade 10 through 12, ages 15 through 19, Biology 1, an introductory level course in plant and animal biology)
- *What are the relevant characteristics of this class that influenced your instructional strategies for this instructional sequence: ethnic, cultural, and linguistic diversity; the range of abilities of the students; the personality of the class?*
- *What are the relevant characteristics of the students with exceptional needs and abilities that influenced your planning for this instruction (e.g., the range of abilities and the cognitive, social/behavioral, attentional, sensory, and/or physical challenges of your students)?* Give any other information that might help the assessor "see" this class.
- *What are the relevant features of your teaching context that influenced the selection of this instructional sequence?* This might include other realities of the social and physical teaching context (e.g., available resources, scheduling of classes, room allocation—own classroom or shared laboratory facilities) that are relevant to your response.

[Suggested total page length for **Instructional Context: 1 page**]

2. Planning Instruction

In this section, address the following questions:

- *What is the major idea in science that you have chosen as the focus of your response to this entry?*
- *What were your goals for student learning in connection to the major idea during the featured period of instruction?*
- *Why do you consider this major idea in science and these goals to be important and appropriate for your students to learn about?*
- *What were the activities you and your students engaged in, and how were they sequenced and organized to build on students' interests, prior knowledge, and developing understandings as the sequence unfolded?* Describe the instructional sequence you developed to facilitate student growth in understanding of the major idea. The sequence may have included more than the three activities you choose to feature here. Describe the entire sequence, and note which activities you are featuring.
 - **Note:** You may choose to augment your overview of the instructional sequence with a graphical element, such as a flowchart, web, outline, or diagram, depicting the activities you and your students participated in and their relationship to one another. If you choose to include a graphical element, ensure that it is legible and that it is included in your total page count.
- *What challenges are inherent in teaching this major idea to your students? How is your instruction designed to meet these challenges? Did you modify your planned instruction in any way to meet these challenges?* Explain any modifications you made and the reasons for them.
- *What general criteria do you use to assess student work? How were these criteria developed, and how do you communicate them to students? What are your overarching criteria, or standards, that you apply to science assessment in general?*
- *What technologies did you use during this lesson and why did you choose them?* Cite specific examples from the instructional sequence that show you or your students interacting with these technologies.

[Suggested total page length for **Planning Instruction: 4 pages**]

3. Analysis of Instruction and Student Work

In your response to the questions in this section, refer explicitly to the three instructional activities featured in this entry and the accompanying student work to provide concrete examples to illustrate your points. Cite activities by number and student work by student name or ID (Student A or Student B) and activity number. In this section, address the following questions:

- *What are specific examples of ways the three activities worked together to further your students' understanding of the selected major idea in science?* Refer to specific aspects of each of the three featured activities and/or the student work.
- *What are specific examples of ways you provided students with a context for the science featured in this sequence by establishing connections to students' backgrounds, experiences, and interests and/or other disciplines and areas of study (e.g., mathematics, history, technology's impact on society, ethics, etc.)?* In other words, how do you help students make meaning of science and internalize its relevance? Refer to specific aspects of each of the three-featured activities and/or the student work.
- *What are specific examples of ways you made good use of instructional resources to support your teaching and extend student learning? Based on your students and your teaching context, why did*

you select these instructional resources to support your teaching? Refer to specific aspects of each of the three featured activities, supporting materials, and/or the student work.

- *Why did you choose this student? What instructional challenge(s) does this student represent? What is important to know about this student to understand and interpret the attached responses?*
- *What are the salient characteristics of each of the three pieces of work? What does the work tell you about the student's growth in understanding of the major idea in science? What does the work tell you about any challenges or misunderstandings this student is experiencing?*
- *How did you assess these pieces of work, and how did you provide feedback or further instruction to the student based on your assessment?*

[Suggested total page length for **Analysis of Instruction and Student Work: 6 pages**]

4. Reflection

In this section, address the following questions:

- *How successful was the instructional sequence in advancing student understanding of the selected major idea? What worked and what didn't work? Cite specific evidence from the three instructional activities and student work samples. Consider both your evaluation of student work and your analysis of the instructional sequence together against the goals you set.*
- *What would you do differently, and why, if you were given the opportunity to teach this particular sequence with these students again?*
- *In the overall scheme of instruction, how useful and appropriate was your culminating assessment in illustrating student understanding of the major idea?*

[Suggested total page length for **Reflection: 2 pages**]

Making Good Choices

Choosing a major idea in science

First, you must select **one** major idea in science. This is an important decision because you must relate your instruction to the chosen major idea and be able to explain how your instruction helps your students achieve a conceptual understanding of this major idea. You should also be able to describe why the major idea is considered to be "major" and why it is important and appropriate for your students.

By "major idea in science," we mean an idea that meets at least one of the following criteria:

- It lies at the heart of and gives structure to a scientific discipline, such as chemical bonding in chemistry, organic evolution in biology, or plate tectonics in Earth/space science.
- It underlies most or all of the scientific disciplines such as the relationship of structure to function or the flow of matter and energy in systems.
- It defines the nature of science, such as methods of scientific investigations or major turning points in the history of science.
- It exemplifies the relationship of science and technology to the lives of individuals and to societies, such as the effects of sanitation, disease control or agricultural technology on human life span and population growth.

For guidance in this important choice, review Major Ideas in Science in *Get Started* and think about what you plan to teach in your science classes. Select **one** major idea that will allow you to demonstrate the types and sequence of instructional activities you use and the instructional decisions you make to help further your students' knowledge and understanding over time.

The time period covered must span a **minimum of three weeks and a maximum of twelve weeks**, so the idea you are addressing must support an instructional sequence that can be seen as a coherent whole or part of a whole within the allowable time frame.

It is not necessary to choose a major idea in science that is new to your teaching; rather, choose a topic that draws on your strengths, typical teaching methods, and curriculum. Choose a major idea that allows you to provide evidence of how you establish the relevance of science to your students and how you create a rich context for science such as establishing connections to students' experiences, history, societal issues, and/or students' backgrounds.

Caution: It will be important to select an idea that is truly "major," as defined by the criteria above. Avoid selecting "minor" ideas such as "how cells divide," "Ohm's law" or "how reaction rates are affected by temperature." These ideas are not substantial enough to show that you understand the unifying themes of science or the breadth of their connections to other disciplines. In addition, a "minor idea" may not provide you with enough grist for an extended, unified instructional sequence.

Choosing the three instructional activities

Think through the entire instructional sequence before beginning the period of instruction. Of course, your instructional plans may well change as you respond to the unique challenges of this period of instruction, but having a logical, sequential plan of instruction in mind will help you in crafting your final response to this entry. The sequence should have these characteristics:

- Every instructional activity in the sequence should relate closely to the selected major idea in science. **Caution:** Although you may be developing several major ideas concurrently, for the purpose of this entry focus only on the activities that relate to students' developing conceptual understanding of the one major idea you have selected. Avoid including activities that are only tangentially related to the major idea.
- The sequence should build on students' prior knowledge and experiences in science.
- The activities in the sequence should logically build on one another and help students deepen conceptual understanding of the major idea over time.
- The activities in the sequence should help students establish the relevance of science and understand the broader picture of how this idea is connected to the scientific disciplines and to other aspects of their lives. For example, include activities that draw on students' own backgrounds and experiences, or involve them in issues relevant to their local community, rather than activities that only tangentially reference "real world" connections to science concepts.
- The activities in the sequence should allow students to demonstrate their developing conceptual understandings of the major idea through some sort of response, written or otherwise, that you can include in the student work samples. **Caution:** Do not choose activities that result in student work samples that focus on factual recall or vocabulary, such as worksheets, students' lecture notes, or data collection sheets. Choose instead activities that yield rich evidence of students' scientific thinking and reasoning, such as a written lab report, a student's journal entry, or documentation of an extended project. Because of the nature of this type of student work, we have allowed for a **maximum of 18 pages of student work** samples. However, a fewer number of pages can demonstrate how students develop conceptual understandings of the major idea.
- The activities should elicit scientific thinking and reasoning on the part of students and allow students to demonstrate their thinking and reasoning in a tangible form that can be seen in the accompanying student work.
- The activities should show how you create and/or adapt instructional activities and instructional resources to meet the diverse needs of your students.
- The activities should allow you to demonstrate your skill in promoting student understanding through the conceptual challenges you pose or student misunderstandings you confront.
- Show, at the conclusion of the instructional sequence, how you prepare and use a culminating assessment (written, oral, performance-based or other traditional forms of assessment) to measure student understanding of the major idea, to inform your instruction and to provide feedback on the success of the sequence of instruction.
- As you and your students work through the instructional sequence, keep records of the instructional activities you engage in. Plan in advance to collect both supporting materials and student work samples from every activity. You may find it helpful to keep a log in which you describe and analyze each day's instruction or activity. The Instructional Activity Cover Sheet forms, which are at the end of the entry directions and *Forms & Specs*, can be used as one way to keep such a record.

When the instructional sequence is completed, review your notes from the sequence, and choose three instructional activities that clearly demonstrate the nature and direction of your instruction during this period of time. "Instructional activities" can be interpreted broadly to mean the things your students do—either in or out of class—that contribute to their learning, such as class discussions, laboratory work,

interactive demonstrations, experiments, lectures, journal assignments, community or field work, and long-term projects. An activity can take place during a portion of a class period, an entire class period, or multiple class periods. When you have selected the three instructional activities, complete the Instructional Activity Cover Sheets and attach appropriate documentation. Then, read through them and check that the set communicates an accurate, complete, and focused picture of the nature and direction of your instruction about the major idea in science.

Choosing the two students whose work you will feature

Next, you must select the students whose work you will include as work samples. The two students you select should represent different instructional challenges to you and draw on the range of student needs, abilities, and interests in your classroom. By selecting different types of students, you may better display your teaching ability and flexibility.

To facilitate your selection, you may want to select as many as four students who meet these criteria and collect examples of their work over the course of the instructional sequence. Consider carefully before choosing your strongest students, the ones who seemed to have an aptitude for science when they entered your classroom. Though this kind of student presents an instructional challenge that is certainly worthy of inclusion in this response, you may find that less able students offer you better opportunities to demonstrate your contribution to the student's development.

After you have collected the work of the students you have decided to follow, examine the work and decide which two students present the most interesting patterns of student work through the three instructional activities you have chosen to feature. Choose a pair of students whose work is likely to show both their progression toward a conceptual understanding of the major idea, as well as the conceptual difficulties they encountered along the way. It would be a good idea to read carefully over the questions you will answer in the Written Commentary to get an idea of the type of analysis the selected work samples should be able to support. Note: Your response will be scored based on the quality of your analysis and not on the level of students' work.

The students whose work you select must come from the same class that you use as the basis for your discussion in the Written Commentary.

Choosing a culminating assessment

At the conclusion of the instructional sequence, show how you prepare and use a culminating or alternative assessment to evaluate the students' progress. You may include the instrument itself or a description of the assessment activity. It can be written, oral, performance-based, or other traditional forms of assessment. It should help you measure the student understanding of the major idea and inform your instruction by providing important feedback on the success of the sequence of instruction.

Entry 1

Format Specifications

This section presents detailed guidelines for preparing your entry materials. Please follow these guidelines carefully. As a further aid to your preparation of these entry materials, refer to the Entry 1 Assembly Final Inventory Form and *Pack & Ship*.

Written Commentary

Writing About Teaching in *Get Started* provides useful advice for developing your Written Commentary. Your response will be scored based on the content of your analysis. However, it is important to proofread your writing for spelling, mechanics, and usage. Your response must meet the requirements listed below:

- Be organized into the section headings given in Composing My Written Commentary:
 1. Instructional Context
 2. Planning Instruction
 3. Analysis of Instruction and Student Work
 4. Reflection
- Be typed in double-spaced text on 8.5" X 11" paper with one-inch margins on all sides using Times New Roman 12 point font. Print on only one side of each page. Pages with pictures or text on two sides will count as two pages. Consult Formatting Written Materials in *Forms & Specs* for more specific instructions.
- Be written in English.
- Have all pages sequentially numbered.
- Have your Candidate ID number in the upper right corner on all pages. Do **not** include your name. If you are using a word-processing program, you may find that it saves time to create a "header" that will print your Candidate ID number on each page.
- Be legible. Be sure that your printer's ribbon or toner cartridge is in good condition.
- Preserve the anonymity of the students. Do not use students' last names.
- Be no longer than **13 typed pages in total**. If you submit a longer Written Commentary, only the **first 13 pages** will be read and scored.

The Written Commentary you submit for this entry must meet all of the requirements above. Failure to meet the requirements may make it difficult for assessors to locate evidence, which could impact your score.

Instructional Activities

Instructional Activity Cover Sheets (one for each instructional activity) are found in *Forms & Specs*. Attach the following materials to each cover sheet, in the order listed below:

- Your typed responses to the questions found on the cover sheet. Your responses must be typed in double-spaced text with one-inch margins on all sides using Times New Roman 12 point font, and be no longer than **1 typed page**. Number each response with the number of the question.

- Any other relevant instructional materials that help in understanding the instructional activity (handouts, excerpts from teacher guides, instructions to students, copies of overhead transparencies, etc.)
 - **Note:** If instructional materials that are important for assessors to see are impractical to submit (for example, overhead transparency or slide projections, writing on a chalkboard or whiteboard, software, three-dimensional objects), submit a drawing, photocopy, digitized image, photograph, or description/transcription of the material. (If you submit a description/transcription, it must be typed in double-spaced text with one-inch margins on all sides using Times New Roman 12 point font. Print on only one side.)

The materials that you submit must meet the following requirements:

- Be 8.5" X 11". A smaller item (e.g., a photograph) must be affixed to an 8.5" X 11" sheet of paper.
 - **Note:** If an instructional material was created in PowerPoint, HyperStudio, or other similar media, you may format up to 6 slides on one 8.5" X 11" sheet. Each sheet will count as one page toward your page total.
 - **Note:** If an instructional material contains Web pages, each Web page printout (one 8.5" X 11" sheet) will count as one page toward your page total.
 - **Note:** Do not photocopy full-size pages of instructional materials in a reduced format in order to fit more than one instructional material onto a single sheet of paper.
- Be legible.
- Have all pages sequentially numbered.
- Have your Candidate ID number in the upper right corner on all pages. Do **not** include your name.
- Be no more than **9 pages total of instructional material** for all three activities combined. Cover sheets and sheets containing your responses to the questions on the cover sheets do not count toward this total. No materials will be returned.

Culminating Assessment

The culminating assessment must:

- Be attached to the appropriate Culminating Assessment Cover Sheet.
- Consist of the assessment instrument or descriptions of any alternative means of assessment.
- Immediately follow the Culminating Assessment Cover Sheet and be no more than **2 pages total**.

The instructional activities you submit for this entry must meet all of the requirements above. Failure to meet the requirements may make it difficult for assessors to locate evidence, which could impact your score.

Student Work Samples

The student work samples that you submit must satisfy the following criteria:

- Represent each student's original work. The original student work or clear copies of student work are acceptable.
- Come from students who are in the class that is the basis for your Written Commentary.
- Be from the same two students responding to the same three activities that you are featuring in this entry.

The student work samples that you submit must be prepared as follows:

- Be attached to a cover sheet. Student Work Sample Cover Sheets (one for each student work sample) are found in *Forms & Specs*.
 - **Note:** Place each student work sample directly behind the instructional activity and instructional materials that the sample is related to. (See the "Instructional Activities" section above.) Be sure a Student Work Sample Cover Sheet is attached to each student work sample.
- Be clearly labeled Student A or Student B on all pages and show the student's first name only. Delete students' last names, teachers' names, or any identifying information about the students' families.
- Be 8.5" X 11". A smaller item (e.g., a photograph) must be affixed to an 8.5" X 11" sheet of paper.
 - **Note:** If a student work sample was created in PowerPoint, HyperStudio, or other similar media, you may format up to 6 slides on one 8.5" X 11" sheet. Each sheet will count as one page toward your page total.
 - **Note:** If a student work sample contains Web pages, each Web page printout (one 8.5" X 11" sheet) will count as one page toward your page total.
 - **Note:** Do not photocopy full-size pages of student work samples in a reduced format in order to fit more than one student work sample onto a single sheet of paper.
 - **Note:** Do not send video recordings, audiotapes, models, etc. If a student creates such a product, have the student write a one-page description of the assignment and what the student made. You may include photograph(s) or student-made drawings to accompany the description, if appropriate. The one-page description counts toward your page total.
- Be legible.
- Have all pages sequentially numbered.
- Have your Candidate ID number in the upper right corner on all pages. Do not include your name.
- Be no more than **18 pages total of student work samples** for all three instructional activities combined. Cover sheets do not count toward this total. No materials will be returned.

The student work samples you submit for this entry must meet all of the requirements above. Failure to meet the requirements may make it difficult for assessors to locate evidence, which could impact your score.

Failure to submit a Written Commentary, student work samples, instructional materials, and a culminating assessment will make your response to this entry unscoreable.

Entry 1

Cover Sheets and Forms

All cover sheets and forms required for this entry are listed below and can be found in Forms & Specs. To read and print these documents, you must install Adobe Acrobat Reader® software on your computer. You may download Adobe Reader for free by following the instructions provided by Adobe Systems. Responses can be entered electronically and printed in Adobe Reader. However, Adobe Reader will not allow you to save the forms. You will need to print your completed forms or obtain a full version of Adobe Acrobat in order to save your work.

As you prepare your portfolio, keep in mind the following:

- Print as many copies of the Student Release Form and Adult Release Form as needed.
- The Entry 1 Assembly Final Inventory Form and Candidate Release Form, when complete, are submitted in the Forms envelope, not the envelope for this entry.
- Some cover sheets may contain directions. Adhere as closely as possible to the directions on such cover sheets. Information that you are asked to supply on cover sheets may be electronically entered directly into the space provided, single-spaced using 12 point Times New Roman type, or handwritten.

Packing and Returning Your Portfolio Entries

Please refer to the Entry 1 Assembly Final Inventory Form and *Pack & Ship* for detailed instructions and diagrams that show you how to arrange your materials before placing them in the envelopes provided.

We provide detailed instructions for assembling and packaging your entries to ensure your entries are easily inventoried. Staff at the NBPTS Processing Center and scoring sites need to follow a detailed, ordered list when they check-in your portfolio and entries. Therefore, it is important to make sure that no materials are left out of an entry envelope and that no materials are placed in the wrong entry envelope. **Incorrectly packaged entries may not be scoreable.**

Cover Sheets and Forms for Entry 1

Listed below are all the cover sheets and forms you need to complete this entry.

For Your Entry 1 Envelope

- Entry 1 Cover Sheet
- Contextual Information Sheet
- Written Commentary Cover Sheet
- Instructional Activity #1 Cover Sheet
- Instructional Activity #2 Cover Sheet
- Instructional Activity #3 Cover Sheet
- Student Work Cover Sheet Instructional Activity #1, Student A
- Student Work Cover Sheet Instructional Activity #1, Student B

- Student Work Cover Sheet Instructional Activity #2, Student A
- Student Work Cover Sheet Instructional Activity #2, Student B
- Student Work Cover Sheet Instructional Activity #3, Student A
- Student Work Cover Sheet Instructional Activity #3, Student B

For Your Forms Envelope

- Culminating Assessment Cover Sheet
- Entry 1 Assembly Final Inventory Form
- Candidate Release Form
- Attestation Form

For Your Records

- Student and Adult Release Form Cover Sheet
- Student Release Form (English)*
- Student Release Form (Spanish)*
- Adult Release Form*

*Print as needed.

Active Scientific Inquiry

Accomplished Adolescence and Young Adulthood/Science teachers know how students learn, know their students as individuals, and determine students' understandings of science as well as their individual learning backgrounds. They have a broad and current knowledge of science and science education, along with in-depth knowledge of one of the subfields of science, which they use to set important and appropriate learning goals.

Accomplished Adolescence and Young Adulthood/Science teachers employ a deliberately sequenced variety of research-driven instructional strategies and select, adapt, and create instructional resources to support active student exploration and understanding of science. Teachers use a wide variety of instructional resources, such as laboratory equipment and materials, technological tools, print resources, and resources from the local environment, as they create memorable learning experiences for their students.

Accomplished Adolescence and Young Adulthood/Science teachers spark student interest in science and promote active and sustained learning, so all students achieve meaningful and demonstrable growth toward learning goals. Whenever possible, teachers choose activities and topics that relate to their students' interests, experiences, and cultures and that support the curriculum they teach.

Accomplished Adolescence and Young Adulthood/Science teachers create safe, supportive, and stimulating learning environments that foster high expectations for each student's successful science learning and in which students experience and incorporate the values inherent in the practice of science. They ensure that all students, including those from groups that have historically not been encouraged to enter the world of science and that experience ongoing barriers, succeed in the study of science, and understand the importance and relevance of science.

Accomplished Adolescence and Young Adulthood/Science teachers engage students in active exploration to develop the mental operations and habits of mind that are essential to advancing strong content knowledge and scientific literacy. Science teachers understand that the inquiry process is not a uniform series of predetermined steps and that scientists vary widely in how they seek knowledge about natural phenomena. Nevertheless, certain patterns in the methods of successful scientists are evident, for example, in their capacity to recognize problems, ask relevant questions, formulate working hypotheses, observe phenomena, record and interpret data and graphs accurately, reach tentative conclusions consistent with data, and express themselves clearly about the significance of findings. In the classrooms of accomplished science teachers, the scientific process is not a linear series of steps but a cyclical process based on data collection and the continual refinement of questions.

Accomplished Adolescence and Young Adulthood/Science teachers continually analyze, evaluate, and strengthen their practice to improve the quality of their students' learning experiences.

The following *Standards* represent the focus of this entry:

- I. *Understanding Students*
- II. *Understanding Science*
- III. *Understanding Science Teaching*
- IV. *Engaging the Science Learner*
- V. *Sustaining the Learning Environment*
- VI. *Promoting Diversity, Equity, and Fairness*
- VII. *Fostering Science Inquiry*

- X. *Reflecting on Teaching and Learning*

Entry 2 directions include the following sections:

- What Do I Need To Do?
- How Will My Response Be Scored?
- Composing My Written Commentary
- Making Good Choices
- Format Specifications
- Cover Sheets and Forms

Entry 2

What Do I Need To Do?

In this entry, you will demonstrate how you engage your students in active scientific inquiry. You will show how you use discussion to support students through different stages of the inquiry process. You are asked to provide specific evidence of your ability, through discourse, to help students conceptualize an investigation prior to the collection of data, to help students inquire about the data as it is being collected and processed, and to analyze, interpret, and synthesize the results of the investigation. This entry is about how you use discourse to facilitate your students' direct involvement in scientific inquiry processes as they engage in a scientific investigation. This entry also asks that you reflect on your instruction and describe, analyze, and evaluate how you promote student learning and inquiry.

For the purpose of this entry, the "scientific inquiry process" refers to having students actively explore concepts using appropriate materials and techniques, probe for understanding, and progress toward conceptual development beyond factual recall. Students engaged in this process are likely to be observing phenomena; formulating working hypotheses; gathering, recording, and analyzing data; and expressing the significance of their findings.

For this entry, you must submit the following:

- **Written Commentary (13 pages maximum)**
that contextualizes, analyzes, and evaluates your teaching throughout this process of scientific inquiry.
- **One Video Recording (20 minutes maximum)**
that shows you engaging students in scientific inquiry during **three discrete segments** of science inquiry.
Segment 1 will show you interacting with students to begin the inquiry by identifying important questions, appropriate methods, and potential data sources.
Segment 2 will show you interacting with students as they collect and/or evaluate data as part of the investigation. The focus of this segment will be your interactions that help students inquire about how the data relate to the central questions of the investigation.
Segment 3 will show how you engage students in analyzing, interpreting, and synthesizing the results of the investigation.
Though it is possible, it is unlikely that the segments will occur contiguously. In fact, the segments may come from interactions that occur on two or three separate days of instruction. You will need to isolate three segments that together can be combined into a single 20-minute video recording.
- **All forms required for this entry can be found in Forms & Specs.**

See Making Good Choices and Format Specifications for more detail regarding each of the above.

It may be helpful to have a colleague help you record video, watch and analyze the video recordings, read and comment on your analyses and on the student work you have chosen. **However**, all of the work you submit as part of your response to **any entry must be yours and yours alone**. This means that your written analyses, the student work you submit, and your video recordings must all feature teaching that

you did and work that **you** oversaw. For more detailed information, see Ethics and Collaboration in the *Intro* and the National Board's Ethics Policy.

Entry 2

How Will My Response Be Scored?

Your response to this entry will be scored based on the following *NBPTS Adolescence and Young Adulthood/Science Standards*:

- I. *Understanding Students*
- II. *Understanding Science*
- III. *Understanding Science Teaching*
- IV. *Engaging the Science Learner*
- V. *Sustaining the Learning Environment*
- VI. *Promoting Diversity, Equity, and Fairness*
- VII. *Fostering Science Inquiry*

- X. *Reflecting on Teaching and Learning*

It is strongly recommended that you review these standards before you begin and periodically as you prepare your response to this entry.

Your response will be judged on the extent to which it **provides clear, consistent, and convincing evidence of your ability to facilitate and support student learning through scientific inquiry as students actively engage in a science investigation.**

The Level 4 rubric, the highest level of the rubric, specifically requires **clear, consistent, and convincing evidence** in your response that you:

- clearly establish the investigation and related learning goals as central to science and justify them as appropriate for your students and your specific teaching context;
- develop students' ability to engage in scientific inquiry at different critical points of an investigation;
- support students' inquiry processes as they conceptualize investigations, as they collect and process data, and as they analyze and communicate their findings;
- reflect consideration of the unique learning needs of your students, show high expectations for all students, and demonstrate proficiency in the challenges of developing scientific understanding through inquiry;
- foster an equitable, accessible, and fair learning environment in which students are encouraged to participate in science inquiry;
- display strong command of science content linked with appropriate science pedagogy;
- accurately describe, analyze, and evaluate classroom interactions, showing knowledge of students and insight into their learning;
- are resourceful in adapting and/or creating rich and appropriate instructional resources to support and extend student learning; and
- engage in reflective thinking in which you describe your practice accurately, analyze it fully and thoughtfully, and reflect on its implications and significance for future teaching.

Entry 2

Composing My Written Commentary

The Written Commentary has been divided into sections with specific questions to help organize and direct your response. Your Written Commentary must address the following italicized questions and be organized into four sections using the headings that appear in boldface below.

1. Instructional Context
2. Planning
3. Video Recording Analysis
4. Reflection

Consistent headings will help assessors locate the required information more easily. Statements in plain text that immediately follow an italicized question will assist you in interpreting the question. It is not necessary to include the italicized questions within the body of your response.

The entire Written Commentary must be **no longer than 13 typed pages**. Suggested page lengths for each section are included to help you make decisions about how much to write for each of the four sections. (See Format Specifications for more detail.)

1. Instructional Context

This information is in addition to the information provided on the Contextual Information Sheet, which focuses on the school/district at large. In this section, address the following questions about your selected class:

- *What are the number, ages, and grades of the students in the class featured in this entry and subject matter of the class?* (Example: 32 students in Grade 10 through 12, ages 15 through 19, Biology 1, an introductory level course in plant and animal biology)
- *What are the relevant characteristics of this class that influenced your instructional strategies for this instructional sequence: ethnic, cultural, and linguistic diversity; the range of abilities of the students; the personality of the class?*
- *What are the relevant characteristics of the students with exceptional needs and abilities that influenced your planning for this instruction (e.g., the range of abilities and the cognitive, social/behavioral, attentional, sensory, and/or physical challenges of your students)?* Give any other information that might help the assessor "see" this class.
- *What are the relevant features of your teaching context that influenced the selection of this inquiry lesson?* This might include other realities of the social and physical teaching context (e.g., available resources, scheduling of classes, room allocation—own classroom or shared laboratory facilities) that are relevant to your response.

[Suggested total page length for **Instructional Context: 2 pages**]

2. Planning

In this section, address the following questions:

- *What are your goals for this investigation, including concepts, attitudes, processes, and skills you want students to develop? Why are these important learning goals for these students?*
 - **Note:** You may choose to augment your planning with a graphical element, such as a flowchart, web, outline, or diagram, depicting the activities you and your students participated in and their relationship to one another. If you choose to include a graphical element, ensure that it is legible and that it is included in your total page count.
- *How do these goals fit into your overall goals for the year?*
- *How are the use of scientific inquiry and this investigation appropriate for addressing your goals for these students?*
- *What are the central features of the three segments selected for the video recording? Explain how the three segments support different aspects of the inquiry process.*

[Suggested total page length for **Planning: 2 pages**]

3. Video Recording Analysis

This information focuses on your description and analysis of the lesson. When citing specific evidence, it may be helpful to assessors if you identify specific locations in the video recording by describing specific dialogue, events, and/or students (e.g., "when the girl in the green sweater explained the concept of natural selection"). In this section, address the following questions:

- *Citing specific evidence from the first segment of the video recording, how did you support student inquiry in order to conceptualize the primary questions and/or methodology of the investigation? Point to specific interactions in the video recording that provide evidence of how your teaching supports student inquiry.*
- *Citing specific evidence from the second segment of the video recording, how did you support student inquiry during the collection and processing of data during the investigation? Point to specific interactions in the video recording that provide evidence of how your teaching supports student inquiry.*
- *Citing specific evidence from the third segment of the video recording, how did you support student inquiry as they analyzed, considered, and evaluated the final results of the investigation? Point to specific interactions in the video recording that provide evidence of how your teaching supports student inquiry.*
- *How well were the learning goals for this inquiry investigation achieved? Cite specific evidence from the video recording.*
- *Cite one interaction on the video recording that shows a student and/or students learning to engage in scientific inquiry. Please explain as specifically as possible, including how your teaching strategies and actions supported student learning.*
- *How did you make use of available resources to promote student learning and inquiry? Cite specific evidence from the video recording.*
- *Describe a specific example from this lesson as seen on the video recording that shows how you ensure fairness, equity, and access for students in your class.*

[Suggested total page length for **Video Recording Analysis: 7 pages**]

4. Reflection

In this section, address the following questions:

- *As you review the video recording, what parts of the investigation were particularly effective in terms of reaching your goals with this group of students? Why do you think so?*
- *What would you do differently if you had the opportunity to pursue this investigation in the future with a different class? Why?*

[Suggested total page length for **Reflection: 2 pages**]

Entry 2

Making Good Choices

Choosing a class

You must choose the class to feature. The class should be one in which scientific inquiry, including investigations, is common practice. Since your response will be considered on the basis of how you support students engaged in inquiry, it is not necessarily the case that your best performing class provides the best opportunity to discuss your practice. The focus is on your practice, not on the level of student performance.

Selecting an investigation

You must select an investigation that provides opportunities for your students to engage in important aspects of scientific inquiry. The investigation should have students engaging in such inquiry processes as observing phenomena, asking relevant questions, formulating working hypotheses, designing experimental approaches, analyzing data, reaching tentative conclusions, crafting scientific arguments, and communicating the significance of findings. For guidance in this choice, review Major Ideas in Science and Science Inquiry in *Get Started*.

The chosen investigation should focus on concepts and problems that are appropriate for your students. You should choose an investigation in which students are actively involved in the generation and evaluation of data. In many cases, students will conduct an experiment, using materials and techniques to generate data relevant to the experimental questions. In some cases, students may use secondary data generated in other contexts. For example, students in an Earth Science class may use geologic data collected by governmental agencies to examine an important question. In either case, the entry asks that you show how you help students reason about the appropriateness and utility of data to address questions germane to the investigation, that they appropriately organize such data, and then reason about the results of the investigation.

Given that this entry focuses on how you help students engage in inquiry to reason through a scientific investigation, it is strongly recommended that you avoid instructional sequences that are not conducive to full scientific inquiry. Therefore, you should avoid the following types of instructional activities:

- Predetermined or "cookbook" investigations in which students simply follow a set of established procedures or verify known facts, or simply confirm expected results.
- Investigations that emphasize practicing laboratory skills such as learning how to use a microscope, how to perform a titration, or practicing how to take measurements.
- Teacher demonstrations or modeling with little or no active student engagement in the investigation.

Your video recording should focus on your skillful facilitation of inquiry, not on the sophistication of any equipment being used.

Selecting the video segments

You will need to select the **three segments of teaching that will make up the 20-minute video recording you submit**. It is important to choose three segments that, together, give you an opportunity to discuss your practice with respect to scientific inquiry. No minimum amount of time is specified for any one segment. Candidates should consider how they organize their inquiries to decide how to best provide evidence of how they help students engage in different aspects of the inquiry process. However, no more than three discrete segments are allowed and the entire video recording must be **no longer than 20 minutes**. The three segments must be part of the same scientific investigation.

The **first segment** should show how you use inquiry discussion to help students conceptualize the primary questions and/or methodology of an investigation. You may ask students to engage in such processes as observing phenomena, posing questions and hypotheses, suggesting potential sources of evidence, or delineating experimental designs. In this segment, you will show how you help students develop a rationale for the experimental processes in which they will engage. Therefore, avoid selecting segments in which the teacher provides the entire experimental rationale for students.

The **second segment** should show how you interact with students as they inquire about the data from the investigation. During this segment, there should be evidence of student inquiry as they collect, record, and/or analyze data. If appropriate to the investigation, secondary data sources may serve as the information that is processed. The focus of this segment is on how you support students in inquiry as they work through the investigation. For this reason, avoid segments that show students simply carrying out experimental procedures (e.g., taking measurements). The segment should highlight your discussions with students as to the relevance of the data to the goals of the investigation. These goals can be related to the particular concept(s) that is the focus of the investigation, or they may be related to understandings that are more general. For example, the segment might provide an opportunity to inquire about such issues as reliability, sampling error, or scale.

The **third segment** should show how you interact with students, facilitating inquiry strategies to bring closure to an investigation. This segment of the investigation may show you working with students to generate conclusions, explanations and hypotheses based on data, consider alternative hypotheses and evaluate them in light of the evidence, or generate new questions to investigate. This segment should demonstrate your skill in carefully crafting questions and prompts that elicit scientific reasoning and thinking on the part of the students as they discuss the significance of their findings. Given that the focus of this entry is on active scientific inquiry, avoid interactions in which students are simply asked to confirm expected findings.

The segments, taken together, should also provide evidence for how you engage all students in the classroom in scientific inquiry. Avoid selecting video segments that only highlight a limited number of students in your class.

Video record a number of different investigations in which you engage students in scientific inquiry. Remember that you will need **one 20-minute video recording comprised of three segments** to complete this entry; having several from which to select will allow you to make a careful choice. Remember, you must have a signed Student Release Form for all students seen on the video recording before recording. Any adults that appear in the video recording (for example, teacher's aides, parents, student teachers, or colleagues) will need to sign an Adult Release Form prior to recording. The segments of the video recording should focus on you and the students engaged in inquiry discussions. (Refer to Video Recording Overview in *Get Started* for more information.)

Before you record the video, review the directions for the Written Commentary. As you video record classes that may serve as the basis of your entry submission, jot down notes that will help you recollect all of the detail necessary to assist you in writing the analysis of the video segments you eventually select. Be sure to include in your notes some clear way of identifying which notes go with which video recording.

Review your video recordings to choose the three segments that you will select to comprise the 20-minutes of footage that you will submit for this entry. Choose your clips carefully—you want to show students engaged in inquiry at three critical points during an investigation: conceptualizing the investigation, carrying out the investigation, and bringing closure to the investigation. Each segment should demonstrate your skill in carefully crafted questioning and prompting that elicits scientific reasoning and thinking on the part of students throughout the investigation. The video recording should show teacher-to-student and student-to-student feedback that is frequent and supportive, and that encourages and enhances student learning. Review the section *How Will My Response Be Scored?* paying particular attention to the section pertaining to the video recording, to help you make your selections carefully.

Entry 2

Format Specifications

This section presents detailed guidelines for preparing your entry materials. Please follow these guidelines carefully. As a further aid to your preparation of these entry materials, refer to the Entry 2 Assembly Final Inventory Form and *Pack & Ship*.

Written Commentary

Writing About Teaching in *Get Started* provides useful advice for developing your Written Commentary. Your response will be scored based on the content of your analysis. However, it is important to proofread your writing for spelling, mechanics, and usage. Your response must meet the requirements listed below:

- Be organized into the section headings given in Composing My Written Commentary:
 1. Instructional Context
 2. Planning
 3. Video Recording Analysis
 4. Reflection
- Be typed in double-spaced text on 8.5" X 11" paper with one-inch margins on all sides using Times New Roman 12 point font. Print on only one side of each page. Pages with pictures or text on two sides will count as two pages. Consult Formatting Written Materials in *Forms & Specs* for more specific instructions.
- Be written in English.
- Have all pages sequentially numbered.
- Have your Candidate ID number in the upper right corner on all pages. Do **not** include your name. If you are using a word-processing program, you may find that it saves time to create a "header" that will print your Candidate ID number on each page.
- Be legible. Be sure that your printer's ribbon or toner cartridge is in good condition.
- Preserve the anonymity of your students. Do not use students' last names.
- Be no longer than **13 typed pages in total**. If you submit a longer Written Commentary, only the **first 13 pages** will be read and scored.

The Written Commentary you submit for this entry must meet all of the requirements above. Failure to meet the requirements may make it difficult for assessors to locate evidence, which could impact your score.

Video Recording

Video Recording Overview in *Get Started* provides useful advice for recording your lesson. Your video recording must meet the requirements below:

- Be no longer than **20 minutes**. If you submit a longer video recording, only the **first 20 minutes** will be viewed and scored.
- Be continuous and unedited within each of the three segments.
Caution: Stopping and restarting the camera or sound will be regarded as editing.

Video Recording DOs

- DO conform to the length of the video recording required in the directions of the entry to which you are responding and edited only as specified in the entry directions.
- DO use a single camera.
- DO use only new, blank, standard VHS videotapes.
- DO use a separate VHS tape or DVD for each video-based entry.
- DO record in **Standard Play (SP)** mode only.
- DO refer to the instructions included in your portfolio kit for DVD specifications and submittal requirements.
- DO cue your VHS tape to the beginning prior to submission of the tape.
- DO show conversations that occur in English unless you registered for the Spanish Language Option or WLOE Spanish.
 - If you have chosen the Spanish Language Option, please refer to Additional Considerations in the *Intro* for more formatting information.
 - If your entry contains manual language (e.g. sign language) please refer to Additional Considerations in the *Intro* for additional formatting information.
- If a small portion of your video occurs in a language other than Spanish or English and it is important that an assessor understand it, provide a brief description in the Written Commentary of what was communicated.
- DO use a camera angle that includes as many faces of the students in the class as possible. The video recording should show as much of the class as possible, but it is acceptable to focus on a particular student while he or she is talking, singing, or playing an instrument. **You must be shown in the video, as well.**
- DO have sound quality that enables the assessor to understand all of what you say, sing, or play and most of what students say, sing, or play.
- DO copy your video submissions to a standard VHS tape or DVD if you originally recorded using a camera other than a standard VHS camera (e.g. HI-8 format).

Video Recording DON'Ts

- DO NOT stop and start the camera, except as specified in the entry.
- DO NOT turn off the microphone during recording.
- DO NOT record in Extended Play (EP, LP, or SLP) modes.
- DO NOT add graphics, titles, or special effects (e.g. fade in/out).
- DO NOT submit miniature or adapted formats such as VHS-C, HI-8, or Super VHS videotape cartridges.

The video recording you submit for this entry must meet all of the requirements above. Failure to meet the requirements may make it difficult for assessors to locate evidence, which could impact your score.

You must also submit a photocopy of a government-issued photo ID. The photo ID should be enlarged to double its actual size, so that both your photo and your name are clearly visible. Assessors are required to verify each candidate's identity.

Failure to submit a Written Commentary and video recording will make your response to this entry unscorable.

Entry 2

Cover Sheets and Forms

All cover sheets and forms required for this entry are listed below and can be found in Forms & Specs. To read and print these documents, you must install Adobe Acrobat Reader® software on your computer. You may download Adobe Reader for free by following the instructions provided by Adobe Systems. Responses can be entered electronically and printed in Adobe Reader. However, Adobe Reader will not allow you to save the forms. You will need to print your completed forms or obtain a full version of Adobe Acrobat in order to save your work.

As you prepare your portfolio, keep in mind the following:

- Print as many copies of the Student Release Form and Adult Release Form as needed.
- The Entry 2 Assembly Final Inventory Form and Candidate Release Form, when complete, are submitted in the Forms envelope, **not** the envelope for this entry.
- Some cover sheets may contain directions. Adhere as closely as possible to the directions on such cover sheets. Information that you are asked to supply on cover sheets may be electronically entered directly into the space provided, single-spaced using 12 point Times New Roman type, or handwritten.
- A Classroom Layout Form has been supplied in this section for your use; however, if you wish, you may submit a classroom layout of your own.
- Notes for Videocamera Operation is for the use of the videocamera operator. It is **not** to be submitted with this entry.

Packing and Returning Your Portfolio Entries

Please refer to the Entry 2 Assembly Final Inventory Form and *Pack & Ship* for detailed instructions and diagrams that show you how to arrange your materials before placing them in the envelopes provided.

If you plan to submit video evidence in digital format, refer to the instructions included in your portfolio kit for DVD specifications and submittal requirements.

We provide detailed instructions for assembling and packaging your entries to ensure your entries are easily inventoried. Staff at the NBPTS Processing Center and scoring sites need to follow a detailed, ordered list when they check in your portfolio and entries. Therefore, it is important to make sure that no materials are left out of an entry envelope and that no materials are placed in the wrong entry envelope. **Incorrectly packaged entries may not be scoreable.**

Cover Sheets and Forms for Entry 2

Listed below are all the cover sheets and forms you need to complete this entry.

For Your Entry 2 Envelope

- Entry 2 Cover Sheet
- Contextual Information Sheet
- Written Commentary Cover Sheet
- Classroom Layout Form

For Your Forms Envelope

- Entry 2 Assembly Final Inventory Form
- Candidate Release Form
- Attestation Form

For Your Records

- Notes for Videocamera Operations
- Student and Adult Release Form Cover Sheet
- Student Release Form (English)*
- Student Release Form (Spanish)*
- Adult Release Form*

*Print as needed.

Whole Class Discussions About Science

Accomplished Adolescence and Young Adulthood/Science teachers know how students learn, know their students as individuals, and determine students' understandings of science as well as their individual learning backgrounds. Teachers design tasks and introduce issues that align with students' existing knowledge in order to move them forward. They inquire about students' prior experiences in science and their beliefs and attitudes about science. They use this knowledge and their knowledge of science and science teaching to frame their practice equitably to meet the needs of each student.

Accomplished Adolescence and Young Adulthood/Science teachers have a broad and current knowledge of science and science education, along with in-depth knowledge of one of the subfields of science, which they use to set important and appropriate learning goals.

Accomplished Adolescence and Young Adulthood/Science teachers spark student interest in science and promote active and sustained learning, so all students achieve meaningful and demonstrable growth toward learning goals. The students of accomplished science teachers are constructively engaged in building deep and profound knowledge of the natural and engineered worlds. Students participate creatively in solving problems, offer ideas and listen attentively to the hypotheses of others, and generally display their involvement in and enjoyment of the process of discovery. Influencing the quality of human associations—how students interact with one another and with the teacher—is a significant aspect of creating a productive learning environment that favors both the academic and the personal growth of students.

Accomplished Adolescence and Young Adulthood/Science teachers create safe, supportive, and stimulating learning environments that foster high expectations for each student's successful science learning and in which students experience and incorporate the values inherent in the practice of science. In facilitating classroom discussions or activities, accomplished teachers ask thought-provoking and relevant questions. Such questions stimulate a rich interchange of ideas as teachers and students test one another's assumptions, premises, and conclusions. Raising questions integrally related to the student's concerns of the moment is one path to success in this arena. A well-posed question will often permit the students to push the discussion forward. Accomplished teachers also know how to guide students to ask questions that teachers believe will lead to important learning.

Accomplished Adolescence and Young Adulthood/Science teachers ensure that all students, including those from groups that have historically not been encouraged to enter the world of science and that experience ongoing barriers, succeed in the study of science, and understand the importance and relevance of science.

Accomplished Adolescence and Young Adulthood/Science teachers employ multiple, ongoing methods that are fair and accurate to analyze the progress of individual students in light of well-defined learning goals, and their students achieve meaningful and demonstrable gains in the learning of science. Teachers clearly communicate these gains to appropriate audiences.

Accomplished Adolescence and Young Adulthood/Science teachers continually analyze, evaluate, and strengthen their practice to improve the quality of their students' learning experiences.

The following *Standards* represent the focus of this entry:

- I. *Understanding Students*
- II. *Understanding Science*
- IV. *Engaging the Science Learner*
- V. *Sustaining the Learning Environment*
- VI. *Promoting Diversity, Equity, and Fairness*
- IX. *Assessing for Results*
- X. *Reflecting on Teaching and Learning*

Entry 3 directions include the following sections:

- What Do I Need To Do?
- How Will My Response Be Scored?
- Composing My Written Commentary
- Making Good Choices
- Format Specifications
- Cover Sheets and Forms

Entry 3

What Do I Need To Do?

In this entry, you will demonstrate how you engage a whole class of students in a discussion that increases their understanding of science and scientific thinking as you facilitate a discussion that is interesting, accessible, and relevant. This entry focuses on how you create a positive classroom environment to develop students' conceptual understanding and their ability to engage in scientific thinking and reasoning. You will show how you and your students engage in scientific discourse as the whole class explores a scientific theory, concept, principle, issue, or methodological approach. This entry also asks that you provide evidence of your ability to describe, analyze, and evaluate students' participation and their ability to think and reason scientifically.

For this entry, you must submit the following:

- **Written Commentary (13 pages maximum)**
that contextualizes, analyzes, and evaluates your teaching through whole-class discussion.
- **One Video Recording (20 minutes maximum)**
that shows you and your students involved in a whole class science discussion. While you may have a brief introduction to the discussion or conclusion that shows the class dividing into small collaborative groups, the video recording must be primarily a whole class discussion. The term discussion is defined broadly. It is important that the video recording show how, through discourse, you engage students in important scientific reasoning. Such discourse may occur in a teacher-directed format, provided that there is significant discourse by the students as well as the teacher. The discourse may also occur in a less teacher-directed format. The focus of this entry is not the format of your lesson, but how you engage students in meaningful discussions of science through the questions you pose and the interactions you foster.
- **All forms required for this entry can be found in Forms & Specs.**

See Making Good Choices and Format Specifications for more detail regarding each of the above.

It may be helpful to have a colleague help you record video, watch and analyze the video recordings, read and comment on your analyses and on the student work you have chosen. **However**, all of the work you submit as part of your response to **any entry must be yours and yours alone**. This means that your written analyses, the student work you submit, and your video recordings must all feature teaching that **you** did and work that **you** oversaw. For more detailed information, see Ethics and Collaboration in the *Intro* and the National Board's Ethics Policy.

Entry 3

How Will My Response Be Scored?

Your response to this entry will be scored based on the following *NBPTS Adolescence and Young Adulthood/Science Standards*:

- I. *Understanding Students*
- II. *Understanding Science*
- IV. *Engaging the Science Learner*
- V. *Sustaining the Learning Environment*
- VI. *Promoting Diversity, Equity, and Fairness*
- IX. *Assessing for Results*
- X. *Reflecting on Teaching and Learning*

It is strongly recommended that you review these standards before you begin and periodically as you prepare your response to this entry.

Your response will be judged on the extent to which it **provides clear, consistent, and convincing evidence of your ability to facilitate and support student understanding of important scientific ideas through classroom discourse.**

The Level 4 rubric, the highest level of the rubric, specifically requires **clear, consistent, and convincing evidence** in your response that you:

- engage students in discourse about a significant scientific theory, concept, principle, issue, or methodological approach;
- set appropriate and worthwhile goals for student learning. There is evidence that this particular lesson has been placed in the larger context of instruction designed to enhance student learning in science;
- display a strong command of science content linked with appropriate science pedagogy;
- establish and manage a productive learning environment in which your questioning, prompting, and other instructional strategies elicits scientific reasoning and thinking on the part of students. Feedback in the classroom is frequent, supportive, and encourages and enhances student learning;
- foster an equitable, accessible, and fair learning environment to ensure that all students are encouraged to participate in the study and discussion of science; and
- engage in reflective thinking in which you describe your practice accurately, analyze it fully and thoughtfully, and reflect on its implications and significance for future teaching.

Entry 3

Composing My Written Commentary

The Written Commentary has been divided into sections with specific questions to help organize and direct your response. Your Written Commentary must address the following italicized questions and be organized into four sections using the headings that appear in boldface below.

1. Instructional Context
2. Planning
3. Video Recording Analysis
4. Reflection

Consistent headings will help assessors locate the required information more easily. Statements in plain text that immediately follow an italicized question will assist you in interpreting the question. It is not necessary to include the italicized questions within the body of your response.

The entire Written Commentary must be **no longer than 13 typed pages**. Suggested page lengths for each section are included to help you make decisions about how much to write for each of the four sections. (See Format Specifications for more detail.)

1. Instructional Context

This information is in addition to the information provided on the Contextual Information Sheet, which focuses on the school/district at large. In this section, address the following questions about your selected class:

- *What are the number, ages, and grades of the students in the class featured in this entry and subject matter of the class?* (Example: 32 students in Grade 10 through 12, ages 15 through 19, Biology 1, an introductory level course in plant and animal biology)
- *What are the relevant characteristics of this class that influenced your instructional strategies for this instructional sequence: ethnic, cultural, and linguistic diversity; the range of abilities of the students; the personality of the class?*
- *What are the relevant characteristics of the students with exceptional needs and abilities that influenced your planning for this instruction (e.g., the range of abilities and the cognitive, social/behavioral, attentional, sensory, and/or physical challenges of your students)?* Give any other information that might help the assessor "see" this class.
- *What are the relevant features of your teaching context that influenced the selection of this inquiry lesson?* This might include other realities of the social and physical teaching context (e.g., available resources, scheduling of classes, room allocation—own classroom or shared laboratory facilities) that are relevant to your response.

[Suggested total page length for **Instructional Context: 2 pages**]

2. Planning

In this section, address the following questions:

- *What are your goals for this lesson, including concepts, attitudes, processes, and skills you want students to develop? Why are these important learning goals for these students?*
- *How do these goals fit into your overall goals for the year?*
- *Why is discussion a particularly useful teaching approach for addressing your goals for this lesson?*

[Suggested total page length for **Planning: 2 pages**]

3. Video Recording Analysis

This information focuses on your description and analysis of the lesson shown on the video recording. When citing specific evidence it may be helpful to assessors if you identify specific locations in the video recording by describing specific dialogue, events, and/or students (e.g., "when the girl in the green sweater explained the concept of natural selection").

In this section, address the following questions:

- *How does what we see in the video recording fit into the lesson as a whole (i.e., what came before this part of the lesson, if anything, and what follows this part of the lesson, if anything)?* Provide information that assessors would need to understand the video recording.
 - **Note:** You may choose to augment your analysis with a graphical element, such as a flowchart, web, outline, or diagram, depicting the activities you and your students participated in and their relationship to one another. If you choose to include a graphical element, ensure that it is legible and that it is included in your total page count.
- *How well were the learning goals for the lesson achieved? What is the evidence for your answer?* Point to specific interactions in the video recording. You may also make reference to the lesson as a whole, to subsequent lessons, and to student work.
- *How did your design and execution of this lesson affect the achievement of your instructional goals?* Your response might include—but is not limited to—such things as your anticipation and handling of student misconceptions, unexpected questions from students, particular questions or challenges you posed, or other teaching strategies you employed. Refer to specific interactions in the video recording that provide evidence of how your teaching supports student learning through discussion.
- *What interactions on the video recording show a student and/or students learning to reason and think scientifically and to communicate that reasoning and thinking?* Refer to specific interactions in the video recording and explain as specifically as possible.
- *How do interactions in the video recording illustrate your ability to help students explore and understand the scientific concept(s) being discussed?* Refer to specific interactions in the video recording and explain as specifically as possible.
- *Describe a specific example from this lesson as seen on the video recording that shows how you ensure fairness, equity, and access for students in your class.*

[Suggested total page length for **Video Recording Analysis: 7 pages**]

4. Reflection

In this section, address the following questions:

- *As you review the video recording, what parts of the discussion were particularly effective in terms of reaching your goals with this group of students? Why?*
- *What would you do differently if you had the opportunity to pursue this discussion in the future with a different class? Why?*

[Suggested total page length for **Reflection: 2 pages**]

Entry 3

Making Good Choices

Choosing the class

You must choose the class to feature. The class should be one in which discussions of science are common and important components of instruction. Since your response will be considered on the basis of how you support students engaged in meaningful discussion, it is not necessarily the case that your best performing class provides the best opportunity to feature your practice. The focus is on your practice, not on the level of student performance.

Selecting a lesson

You must **select a lesson** that will provide good opportunities for your students to engage in discourse with you and their peers as they explore a scientific theory, concept, principle, issue, or methodological approach. The class you choose need not be advanced, but the lesson on which you are focusing should be one that is important for the students at their level of learning and one in which they are likely to be engaged in scientific thinking and reasoning. The lesson must be from a unit that is different from those units featured in the other two portfolio entries.

There are many opportunities, topics, and contexts for scientific discussions. They may arise before, during, or after a hands-on activity or demonstration; at times when you want students to analyze or synthesize work they have done; or from incidents that grow out of instruction such as a thought-provoking question or students' attempts to apply scientific concepts to understand or solve real-world problems.

Try to anticipate rich discussions in which science concepts are interesting, accessible, and relevant to students. Though it can be a good choice to capture lessons in which students discuss social, political or other community contexts in which science operates, **make sure that discussions are grounded in scientific concepts**.

Effective science instruction can provide students with the opportunity to acquire scientific values and attitudes such as curiosity, openness to new ideas, acceptance of ambiguity, the ability to work cooperatively, the willingness to modify explanations in light of new evidence, and to take intellectual risks.

Given that this entry focuses on how you foster discussion to promote student learning and understanding in science, you should **avoid** the following types of instructional activities:

- Lectures or interchanges that primarily focus on you disseminating information, with minimal opportunities for students to engage in any meaningful discourse.
- Discussions or demonstrations that primarily require students to repeat previously learned information without engaging in discourse intended to advance understanding.
- Discussions that show only interactions among students, but that do not provide direct evidence for how you facilitate classroom discussions.

Selecting the video segment

You will need to select the **20-minute continuous, unedited video segment to submit**. It is important to choose a video segment that gives you an opportunity to discuss your practice. What is important in this entry is to show how you facilitate student understanding of important scientific ideas and reasoning, and how you foster students' ability to have a discussion with you and their peers about science. Your video recording should:

- show you interacting and discussing with students as you explore a scientific theory, concept, principle, issue, or methodological approach;
- show scientific discourse between you and the students and among the students;
- show how you develop students' ability to reason and think about important scientific ideas; and
- be no longer than **20 minutes**. If you submit a longer video recording, only the **first 20 minutes** will be viewed and scored.

Before you record the video, review the directions for the Written Commentary. As you video record classes that may serve as the basis of your entry submission, jot down notes that will help you recollect all of the detail necessary to assist you in writing the analysis of the video segments you eventually select. Be sure to include in your notes some clear way of identifying which notes go with which video recording.

Review your video recordings to choose the 20-minute continuous segment that you will submit for this entry. Choose your clips carefully—you want to show students engaged in scientific discourse. The video recording should also demonstrate your skill in carefully crafting questions and prompts that facilitate large group instruction and elicit scientific reasoning and thinking on the part of the students. The video recording should show teacher-to-student and student-to-student feedback that is frequent and supportive, and that encourages and enhances student learning. Review the section *How Will My Response Be Scored?* to help you make your selections carefully. The 20-minute continuous segment that you select can come from any point in the lesson; select the continuous and unedited segment that you think provides the best evidence of the standards being assessed.

Video record a number of different class periods in which you and your students are actively engaged in exploring and discussing important scientific ideas. **Remember that you will need one 20-minute, continuous and unedited video segment to complete this entry.** Remember, you must have a signed Student Release Form for all students seen on the video recording before recording. Any adults that appear in the video recordings (for example, teacher's aides, parents, student teachers, or colleagues) will need to sign an Adult Release Form prior to recording. The video recording should focus on you and your students. The video recording should show you and as many students' faces as possible, although it is perfectly acceptable to have the camera zoom in on a particular student who is speaking. The physical arrangement of the students does not matter. They may be arranged in small groups or in rows.

Entry 3

Format Specifications

This section presents detailed guidelines for preparing your entry materials. Please follow these guidelines carefully. As a further aid to your preparation of these entry materials, refer to the Entry 3 Assembly Final Inventory Form and *Pack & Ship*.

Written Commentary

Writing About Teaching in *Get Started* provides useful advice for developing your Written Commentary. Your response will be scored based on the content of your analysis. However, it is important to proofread your writing for spelling, mechanics, and usage. Your response must meet the requirements listed below:

- Be organized into the section headings given in Composing My Written Commentary:
 1. Instructional Context
 2. Planning
 3. Video Recording Analysis
 4. Reflection
- Be typed in double-spaced text on 8.5" X 11" paper with one-inch margins on all sides using Times New Roman 12 point font. Print on only one side of each page. Pages with pictures or text on two sides will count as two pages. Consult Formatting Written Materials in *Forms & Specs* for more specific instructions.
- Be written in English.
- Have all pages sequentially numbered.
- Have your Candidate ID number in the upper right corner on all pages. Do **not** include your name. If you are using a word-processing program, you may find that it saves time to create a "header" that will print your candidate ID number on each page.
- Be legible. Be sure that your printer's ribbon or toner cartridge is in good condition.
- Preserve the anonymity of the students. Do not use students' last names.
- Be no longer than **13 typed pages in total**. If you submit a longer Written Commentary, only the **first 13 pages** will be read and scored.

The Written Commentary you submit for this entry must meet all of the requirements above. Failure to meet the requirements may make it difficult for assessors to locate evidence, which could impact your score.

Video Recording

Video Recording Overview in *Get Started* provides useful advice for recording your lesson. Your video recording must meet the requirements below:

- Be no longer than **20 minutes**. If you submit a longer video recording, only the **first 20 minutes** will be viewed and scored.
- Be continuous and unedited.
Caution: Stopping and restarting the camera or sound will be regarded as editing.

Video Recording DOs

- DO conform to the length of the video recording required in the directions of the entry to which you are responding and edited only as specified in the entry directions.
- DO use a single camera.
- DO use only new, blank, standard VHS videotapes.
- DO use a separate VHS tape or DVD for each video-based entry.
- DO record in **Standard Play (SP)** mode only.
- DO refer to the instructions included in your portfolio kit for DVD specifications and submittal requirements.
- DO cue your VHS tape to the beginning prior to submission of the tape.
- DO show conversations that occur in English unless you registered for the Spanish Language Option or WLOE Spanish.
 - If you have chosen the Spanish Language Option, please refer to Additional Considerations in the *Intro* for more formatting information.
 - If your entry contains manual language (e.g. sign language) please refer to Additional Considerations in the *Intro* for additional formatting information.
- If a small portion of your video occurs in a language other than Spanish or English and it is important that an assessor understand it, provide a brief description in the Written Commentary of what was communicated.
- DO use a camera angle that includes as many faces of the students in the class as possible. The video recording should show as much of the class as possible, but it is acceptable to focus on a particular student while he or she is talking, singing, or playing an instrument. **You must be shown in the video, as well.**
- DO have sound quality that enables the assessor to understand all of what you say, sing, or play and most of what students say, sing, or play.
- DO copy your video submissions to a standard VHS tape or DVD if you originally recorded using a camera other than a standard VHS camera (e.g. HI-8 format).

Video Recording DON'Ts

- DO NOT stop and start the camera, except as specified in the entry.
- DO NOT turn off the microphone during recording.
- DO NOT record in Extended Play (EP, LP, or SLP) modes.
- DO NOT add graphics, titles, or special effects (e.g. fade in/out).
- DO NOT submit miniature or adapted formats such as VHS-C, HI-8, or Super VHS videotape cartridges.

The video recording you submit for this entry must meet all of the requirements above. Failure to meet the requirements may make it difficult for assessors to locate evidence, which could impact your score.

You must also submit a photocopy of a government-issued photo ID. The photo ID should be enlarged to double its actual size, so that both your photo and your name are clearly visible. Assessors are required to verify each candidate's identity.

Failure to submit a Written Commentary and video recording will make your response to this entry unscorable.

Entry 3

Cover Sheets and Forms

All cover sheets and forms required for this entry are listed below and can be found in Forms & Specs. To read and print these documents, you must install Adobe Acrobat Reader® software on your computer. You may download Adobe Reader for free by following the instructions provided by Adobe Systems. Responses can be entered electronically and printed in Adobe Reader. However, Adobe Reader will not allow you to save the forms. You will need to print your completed forms or obtain a full version of Adobe Acrobat in order to save your work.

As you prepare your portfolio, keep in mind the following:

- Print as many copies of the Student Release Form and Adult Release Form as needed.
- The Entry 3 Assembly Final Inventory Form and Candidate Release Form, when complete, are submitted in the Forms envelope, **not** the envelope for this entry.
- Some cover sheets may contain directions. Adhere as closely as possible to the directions on such cover sheets. Information that you are asked to supply on cover sheets may be electronically entered directly into the space provided, single-spaced using 12 point Times New Roman type, or handwritten.
- A Classroom Layout Form has been supplied in this section for your use; however, if you wish, you may submit a classroom layout of your own.
- "Notes for Videocamera Operation" is for the use of the videocamera operator. It is **not** to be submitted with this entry.

Packing and Returning Your Portfolio Entries

Please refer to the Entry 3 Assembly Final Inventory Form and *Pack & Ship* for detailed instructions and diagrams that show you how to arrange your materials before placing them in the envelopes provided.

If you plan to submit video evidence in digital format, refer to the instructions included in your portfolio kit for DVD specifications and submittal requirements.

We provide detailed instructions for assembling and packaging your entries to ensure your entries are easily inventoried. Staff at the NBPTS Processing Center and scoring sites need to follow a detailed, ordered list when they check in your portfolio and entries. Therefore, it is important to make sure that no materials are left out of an entry envelope and that no materials are placed in the wrong entry envelope. **Incorrectly packaged entries may not be scoreable.**

Cover Sheets and Forms for Entry 3

Listed below are all the cover sheets and forms you need to complete this entry.

For Your Entry 3 Envelope

- Entry 3 Cover Sheet
- Contextual Information Sheet
- Written Commentary Cover Sheet
- Classroom Layout Form

For Your Forms Envelope

- Entry 3 Assembly Final Inventory Form
- Candidate Release Form
- Attestation Form

For Your Records

- Notes for Videocamera Operations
- Student and Adult Release Form Cover Sheet
- Student Release Form (English)*
- Student Release Form (Spanish)*
- Adult Release Form*

*Print as needed.

Documented Accomplishments: Contributions to Student Learning

Accomplished science teachers contribute to the improvement of the practice of their colleagues, to the instructional program of the school, and to the work of the larger professional community. They understand that teachers need not and should not work in isolation; rather, they should be active members of learning communities. They let all members of the community, including policymakers and parents, know what real science learning is.

Accomplished teachers strengthen the school as a learning community in many different ways. They are team players, committed to supporting and learning from their colleagues. They participate in the solution of district wide and school wide problems. They contribute to discussions of policy, especially those related to the K-12 science continuum, in ways that demonstrate professional responsibility and advocacy without being partisan. They develop and analyze curricular materials for their department and participate in evaluating state and local science standards and high-stakes tests. They collaborate with learning specialists to ensure that students with special needs and diverse backgrounds have positive, strong, successful, and effective science learning experiences. They do their part in discharging administrative responsibilities. They act as science resources for colleagues in other disciplines and collaborate in the planning of integrated curricula. They understand that informal interactions and peer relationships can be as powerful as formal mentoring structures, and that leadership emerges from either context. Finally, they articulate to students, other practitioners, administrators, families, and the community at large the virtues of science education and the forms it must take if all students are to become science-literate adults.

Accomplished Adolescence and Young Adulthood/Science teachers proactively work with families and communities to serve the best interests of each student. Accomplished science teachers place a premium on connecting with families and community members in meaningful ways. They recognize the importance of establishing productive, mutual relationships with students' families. They also reach out to communities to enhance student learning. They know that the expectations and actions of families have a huge impact on the learning success of students. They respect the role of families as students' first teachers and acknowledge the high aspirations that most families have for their children's education. Early in the school year, they solicit the support of parents and other adult caregivers for the science program. Teachers are receptive and welcoming in their attitude; they establish communication with the family, seeking information from parents about their children's strengths, interests, preferences, learning goals, and home life. They are also proactive and anticipate parents' concerns. Timely response and active outreach are hallmarks of their communication activities.

Accomplished Adolescence and Young Adulthood/Science teachers continually analyze, evaluate, and strengthen their practice in order to improve the quality of their students' learning experiences. They participate in a wide range of reflective practices that reinforce their creativity, stimulate personal growth, and enhance professionalism.

The following *Standards* represent the focus of this entry:

- X. *Reflecting on Teaching and Learning*
- XI. *Developing Collegiality and Leadership*
- XII. *Connecting Families and the Community*

Entry 4 directions include the following sections:

- What Do I Need To Do?
- How Will My Response Be Scored?
- Description and Analysis
- Reflective Summary
- Making Good Choices
- Format Specifications
- Cover Sheets and Forms

Entry 4

What Do I Need To Do?

In this entry, you will demonstrate your commitment to student learning through your work with students' families and community and through your development as a learner and a leader/collaborator.

You can demonstrate your commitment through evidence of your efforts to establish and maintain partnerships with students' families and the community, through evidence of your growth as a learner, and through work that you do with other teachers at a local, state, or national level. This entry is designed to capture evidence of the way in which your role as a teacher is broader than what you do in your classroom. (Not all teachers teach in a "typical" classroom setting—it may be a resource room, library media center, studio, gymnasium, auditorium, workshop, outdoors, etc. The word "classroom" refers to wherever student instruction takes place, regardless of setting.) It provides you with an opportunity to show how what you do outside of the classroom (or beyond explicit student instruction) impacts student learning.

For this entry, you must submit the following:

- **Description and Analysis (8 accomplishments, 10 pages maximum)**
of activities or accomplishments that clearly and specifically describe why they are significant in your teaching context and what impact they had on student learning.
- **Documentation (16 pages maximum)**
that supports your accomplishments that you have chosen to describe.
- **A Reflective Summary (2 pages maximum)**
that reflects on the significance of your accomplishments taken together and your future plans to improve student learning.
- **All forms required for this entry are in Forms & Specs.**

You must demonstrate your work in each of three categories: as a partner with students' families and their community (current year), as a learner (within the last 5 years), and as a leader and/or collaborator (within the last 5 years). You may choose to demonstrate discrete accomplishments in each category, or you may address broader accomplishments that cut across multiple categories. An accomplished response must contain evidence for all three categories, but you may submit **no more than 8 accomplishments**.

Your accomplishments must demonstrate an impact (direct or indirect) on student learning. Impact on student learning is meant in a broad sense. For instance, evidence of measured student achievement is not necessary. Your descriptions of your accomplishments must say to assessors why or how improved student learning is a likely result. Specific examples of impact, where appropriate, will be helpful.

All of the work you submit as part of your response to **any entry must be yours and yours alone**. For more detailed information, see Ethics and Collaboration in the *Intro* and the National Board's Ethics Policy.

Entry 4

How Will My Response Be Scored?

It is strongly recommended that you review the following *NBPTS Adolescence and Young Adulthood/Science Standards* before you begin and periodically as you prepare your response to this entry:

- X. *Reflecting on Teaching and Learning*
- XI. *Developing Collegiality and Leadership*
- XII. *Connecting Families and the Community*

Your response will be judged on the extent to which it **provides clear, consistent, and convincing evidence of your ability to impact student learning through your work with families and the community, with colleagues and other professionals, and as a learner.**

The Level 4 rubric, the highest level of the rubric, specifically requires **clear, consistent, and convincing evidence** in your response that you impact student learning as you:

- treat parents and other interested adults as valued partners in students' development and education;
- use thoughtfully chosen, appropriate strategies that may or may not be original, but are effective in engaging parents and other interested adults in two-way communication focused primarily on substantive teaching and learning issues and individual student progress;
- facilitate ongoing, mutually beneficial interactions between the students and the wider community in a way that enhances teaching and learning;
- engage in conscious and deliberate ongoing professional development to strengthen your knowledge, skills, and abilities relevant to your teaching context;
- work collaboratively with colleagues to improve teaching and learning within your school or in the wider professional community;
- share your expertise in a leadership role with other educators through facilitating professional development of other teachers, improving instructional practices, or advocating for positive change in educational policy; and
- accurately analyze and thoughtfully reflect on the significance of all your accomplishments taken together, and appropriately plan for future opportunities to impact student learning.

Entry 4

Description and Analysis

The Description and Analysis of each accomplishment should clearly and specifically explain *what* the accomplishment is and *why* it is significant in your teaching context, including *how* it has had an impact on student learning.

Because you are allowed to submit **a maximum of only 8 accomplishments** described within only **10 pages of Description and Analysis**, you must select the accomplishments you will feature in this entry carefully.

Be sure to describe the accomplishments that you have chosen so that someone who does not know you or your teaching context can appreciate the significance and impact of what you have described. Explain acronyms used in your school or district, as they may not be familiar to assessors who work in different contexts.

It is important that your Description and Analysis be specific because accomplishments often sound alike, and their actual significance in a particular place and time may not be clear just from their names or a brief description. It is up to you to tell the assessor what is important about these accomplishments, i.e., *what* the accomplishment is, explain *why* it is significant, and *how* it impacts student learning. All parts of the description—*what*, *why*, and *how*—are important. Assessors should see a clear connection between the Description and Analysis and documentation and a clear connection between the accomplishment and student learning.

Each Description and Analysis should be dedicated to a single accomplishment. An accomplishment may be a single activity or event, or a set of related activities and events that are logically related to a unified goal or outcome. You may use as few or as many pages as you like for each description—whatever it takes to describe the accomplishment and to explain its significance and impact on student learning—as long as the total number of pages does not exceed **10 typed pages**. You are not permitted to put several unrelated activities under a single accomplishment. If you do so, each activity will be counted as a separate accomplishment.

For each accomplishment you choose, you must write a Description and Analysis that answers EACH of the following questions. This information is in addition to the information provided on the Contextual Information Sheet, which focuses on the school/district at large.

- *What is the nature of this accomplishment?* Be very specific. Remember that the assessor will know nothing about you or your teaching context.
- *Why is this accomplishment significant?* To be significant, the accomplishment must be an important effort or achievement that demonstrates your work as a partner with students' families and their community; as a learner; and as a leader and/or collaborator with colleagues or other professionals.
- *How has what you have described had an impact on students' learning?* You need to connect your accomplishment to the learning of your students or the students of your colleagues. Where appropriate, cite specific examples.

Each Description and Analysis you write must be accompanied by supporting documentation. Details on how to choose your accomplishments or activities and the types of documentation you may submit are provided later in these entry directions.

Entry 4

Reflective Summary

When you finish writing your Description and Analysis and collecting your documentation, critically review the materials and write a **two-page** Reflective Summary. The summary should not restate your Description and Analysis; rather, it should analyze the effectiveness of your accomplishments. This is your opportunity to highlight the overall significance of your accomplishments taken together and to reflect on them and their impact on student learning.

Respond to the following questions for your Reflective Summary. (It is not necessary to include the italicized questions within the body of your response.)

- *In your work outside of the classroom (beyond explicit student instruction), what was most effective in impacting student learning? Why?*
- *Considering the patterns evident in all of your accomplishments taken together, what is your plan to further impact student learning in the future?*

Entry 4

Making Good Choices

Choosing Your Accomplishments

Choose activities and accomplishments carefully because the *Standards* on which this entry is based value those activities that have significance in your teaching context and have a positive impact on student learning.

The following procedures are designed to help you choose the most appropriate accomplishments:

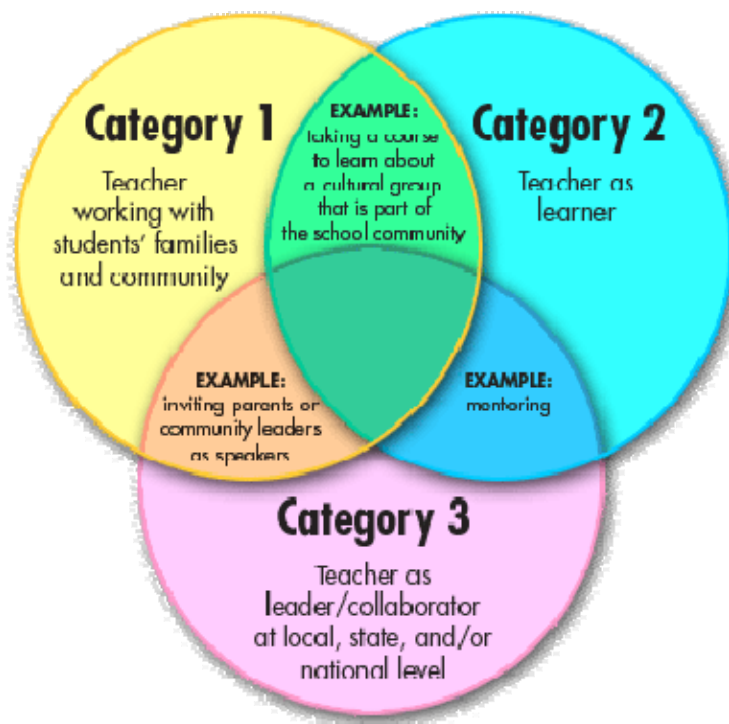
- Read *Standards* X, XI, and XII and the scoring criteria provided in the "How Will My Response Be Scored?" section, with you and your teaching context in mind.
- Think of all your activities and accomplishments that might be relevant to the *Standards* for this entry.
- Carefully review the three categories of accomplishments for which you will require documentation.
- Begin to list your activities and accomplishments that seem relevant to the three categories and to meeting the *Standards* for this entry.
- Consider all possible resources when writing your initial list: your files, professional colleagues, family, personnel folder, old calendars, previous years' planning books, etc.
- Once your initial list is complete, think about what documentation you can provide to support your accomplishment.

Also, when deciding on your accomplishments, consider the following three categories of involvement that must be addressed:

- **Teacher as partner with families and community:** Provide evidence of how you value parents and other interested adults as partners in your students' development and education; how you facilitate ongoing, mutually beneficial interactions between the students and the wider community; and how you foster two-way dialogue with parents and other interested adults. You also need to show how your interactions impact student learning. (*In the current year*)
- **Teacher as learner:** Provide evidence of how you have engaged in ongoing professional development strengthening your knowledge, skills, and abilities relevant to your teaching context (e.g., how you seek information on current theories and research—and their applications—through familiarity with professional literature, participate in and support professional organizations, or take advanced course work relevant to your teaching and learning context). You also need to show how these activities impact student learning. (*Within the last five years*)
- **Teacher as collaborator:** Provide evidence that you have worked collaboratively with colleagues and that you have shared your expertise in a leadership role with other educators to improve teaching and student learning within the school or in the wider professional community. (*Within the last five years*)

You do not have to have separate accomplishments for each of the above categories because you will find that many of your accomplishments overlap the categories.

The Documented Accomplishments Categories Diagram below provides one way of thinking about how the three categories intersect and overlap. This diagram is not prescriptive, but it may help you think about your activities outside the classroom in as wide a manner as possible. For example, the category of you as a learner might include documentation describing how you improved your understanding of teaching skills or your content knowledge in an area that you teach, or how you sought to better understand your students. The diagram shows how the aspects of your work outside the classroom might overlap.



This diagram is meant to be an aid in identifying and categorizing the different kinds of activities in which you engage outside the classroom. It is also designed to show how you can submit one accomplishment that addresses more than one category.

Remember, accomplishments relating to your work with students' families and the community must come from the current year (i.e., for the 12 months preceding your portfolio due date).

AND

Accomplishments relating to your work as a learner and leader and/or collaborator must come from the last five years. For example, if you submit your portfolio in March 2006, the evidence as a learner and leader and/or collaborator must be gathered between March 2001 and March 2006. If a project/program being used as evidence encompassed the entire 2000-2001 school calendar year (i.e., it began in the fall of 2000 and continued through the spring of 2001), it will be acceptable as evidence. You are not required to cite accomplishments spanning all of the last five years, nor are you required to cite accomplishments for each individual year of the five-year period.

The Categories Chart

In order to help you make your final selections, we encourage you to use the Documented Accomplishments Categories Chart in the *Organizer* to track and organize your accomplishments and the related documentation. Write down the significance and impact of each accomplishment before you decide which activities and accomplishments to submit. Remember that the emphasis is on significance and impact, not on quantity. If you cannot complete the boxes on the chart for a particular accomplishment, it is probably not a good choice to submit for this entry.

The chart is organized into categories—these categories are provided as one way of thinking about your work outside of the classroom.

Category - Accomplishments That Demonstrate:	Activity	Significance	Impact On Student Learning	Documentation
Your work with the families and community of your students (During current year)				
Your development as a learner (During last five years)				
Your work as a leader/collaborator (During last five years)				

Some activities in which all teachers must engage may not make the best examples of accomplishments for this entry unless you perform them in a way or to a degree that makes them very effective in promoting students' learning. For example, almost all teachers are required to attend an Open House for parents each new school year. This is, of course, a form of communication with parents and caregivers. In and of itself, this activity shows little or no significant accomplishment or impact, because according to the *Standards* it is both routine and required. However, if your contribution to the Open House night went beyond the routine, making it an effective avenue to engage parents about their child's learning, you should make that very clear in your Description and Analysis.

Not everything you do outside the classroom is appropriate for this entry. For example, community volunteer work or personal interests are worthwhile endeavors, but for those activities to be valued in this entry your involvement must have had an impact on student learning.

On the other hand, you may have been involved in an activity that has had great impact on student learning, but if you do not discuss that impact and how it made a difference in student learning, you will not be providing the necessary evidence for an accomplished score. Assessors are trained not to make any inferences in this area; the candidate must be very clear in describing the impact on student learning.

Choosing Your Documentation

Carefully select and organize the documentation for each accomplishment that you feature in this entry. Documentation can be defined as evidence that verifies that you have done what you said you have done in the commentary. Assessors do not evaluate the documentation; they are looking only for a clear connection between documentation and your accomplishment. You are allowed to submit **a maximum of 16 pages of documentation** for this entry. Therefore, be selective and make each choice count.

The accomplishments you choose to feature may involve a set of activities or events all related to a unified goal or outcome. Such complex accomplishments may require lengthy descriptions in which you detail all or most of the steps taken or activities in which you were engaged. It is not necessary to provide a specific piece of documentation for every part of a complex accomplishment, as long as the documentation you choose to submit supports the overall picture painted by your Description and Analysis. For example, you may have attended multiple workshops addressing a single topic, such as classroom management or a new area of curriculum. You do not need to provide documentation that you attended each and every workshop. Because of page number limitations, perhaps a better choice would be documentation of your attendance at one workshop, followed by documentation that shows your growth in understanding and the new skills you acquired over the course of prolonged study.

There are three types of documentation that you can submit:

1. *Artifacts*

These are documents produced by engaging in activities such as writing articles, developing a newsletter, receiving letters from parents, or presenting a workshop.

You may wish to provide documents that support descriptions of curricula, professional articles or other publications, workshops or presentations that you developed or conducted, grant proposal abstracts, or syllabi for professional classes you have taught.

For long artifacts such as publications (e.g., an article or newsletter), you may submit the title page only. For multiple artifacts such as correspondence with parents, one or two letters may suffice.

Be certain that your name and a date appear on one of the pages submitted for each accomplishment.

2. *Verification Forms*

These are forms completed by colleagues, parents, or others who comment on your description of an accomplishment and confirm its accuracy. Many accomplishments do not leave a paper trail that you can copy and submit as documentation. In these cases—such as mentoring a new teacher in your school—you may find someone familiar with your activities who will verify your description using the Verification Form.

It is not necessary to have a Verification Form for every accomplishment, nor to submit both artifacts and Verification Forms for the same accomplishment.

The Verification Form, if you choose to submit one, must come from someone who is personally knowledgeable about the accomplishment you are describing. The verifier need not be a supervisor or someone in authority in your school or district; for example, a parent or student could be a verifier. A single verifier is sufficient for any one accomplishment. **The same person may not verify more than one accomplishment in a particular category.**

We have provided the Verification Form for you to give to the person you have chosen to verify a particular accomplishment. When you provide this form (found in "Cover Sheets and Forms"), make sure that you also copy the cover letter for the form. (The cover letter is also found in "Cover Sheets and Forms.") The cover letter must accompany the Verification Form when you give the form to the verifier.

Be sure to fill out the top of the Verification Form and use the space provided to describe the accomplishment you have chosen to submit; this must be done **before** you give the form to the verifier for completion. You may type or handwrite this information on the form. If you type, you may single-space the text using 12 point Times New Roman. The verifier should read the cover letter, which asks the verifier to attest to the accuracy of your description. The verifier should then read the top half of the form (which you have already completed), complete the bottom section of the form, **including** the date, and return the form to you. All Verification Forms that you choose to submit **must** accompany the appropriate accomplishment in this entry.

3. Communication Logs

It may be difficult to document some components of the *Standards* because of the nature of many communications with families. A communication log is intended to serve as one possible way to track your contacts with various people outside the classroom concerning your students and their learning. It is a running log for the current school year that briefly records pertinent information shared with or about students' families at the time of the communications. We have provided a blank communication log and an example of a page from a communication log as tools to help you create your own log. They include **each of the following pieces of information:**

- **The date of communication**
- **Participants (delete last names to preserve confidentiality)**
- **A description of the nature of the contact, its purpose(s) and/or outcome(s).**

Each entry in a communication log can be short but must be specific. Assessors will look for information regarding the variety of communications you make and the frequency with which you communicate with other people about your students. **Be sure to record not just outgoing communications but those you receive from others who are significant in students' lives.**

A communication log is not mandatory, but we encourage you to submit a sampling of pages from one if you use one. Select pages that demonstrate the variety of communication you have with families and other parties.

Whether you submit originals or photocopies of your school communication log pages, what you submit must be legible. If you are unable to make legible photocopies, you may transcribe the information from your school communication log pages onto either the blank communication log provided or onto sheets that you create using the sample communication log as a model. **Please note that pages submitted as a**

Communication Log are considered documentation, and must be accompanied by a Description and Analysis.

Cautions

You may not photocopy full-size pages of text or images in a reduced format in order to fit more than one page of text/images onto a single piece of paper. For example, do not reduce two full pages of text in order to place both on a single page. Doing so would reduce the font to smaller than 12 point and make it difficult for assessors to read. If the print is so small that it cannot be read, that sheet of paper will not be scored. If you attempt to photocopy pages in a reduced format, assessors will count that sheet of paper as two pages.

You may, however, place more than one small piece of documentation related to the same accomplishment on the same sheet of paper. For example, if you wrote a journal article, you could photocopy the title page and part of the first page of the article, reducing the size slightly in order to create one piece of paper.

Regardless of whether a piece of documentation has been photocopied or not, if the text is illegible, assessors will not read it and it will not count in your score.

A *curriculum vitae* or résumé is not a good choice for documentation because it lacks descriptions to place the activities and accomplishments in context or to explain their significance. In addition, using a *vitae* or résumé would still require you to attach additional documentation in support of the particular accomplishments that you wished to highlight. Furthermore, the *vitae* or résumé itself would count as pages in your response.

Example of Communication Log: All Certificate Areas

DATE	Person Contacted	TYPE OF COMMUNICATION <i>(telephone, written, email, or in person)</i>	NATURE OF COMMUNICATION <i>(reason for communication, outcome of communication)</i>
3/06	Juan's father	Phone call	Juan has been showing dramatic progress. Spoke with father to encourage his continued support.
3/10	Tara's mother	Phone call	Tara's mother called me with some concerns about Tara's behavior at home. We discussed her incomplete class work. I suggested a reward system.
3/11	Felicia's parents	Email	Felicia's parents responded to my initial request to all parents for information about their children. Learned that Felicia loves science!
3/13	PTA President	Email	Sent draft agenda for Family Math Night; scheduled appointment to plan activities and determine materials that we need.
3/20	All Parents	Newsletter	Sent newsletter home and invited parents to attend and assist with upcoming student performances- waiting for responses.
3/23	Justin's mother	In person	Justin will be moving into my class. Met with Justin and his mother for a smooth transition. Will call home after two weeks to keep mother informed.
3/27	Rotary Club	Phone call	Contacted president regarding the group members' Career Day visit to school.
4/1	Tara's mother	Phone call	Tara's mother called to inform me that her behavior has improved. I mentioned that class work has been made-up.

Communication Log

[illegible]

Entry 4

Format Specifications

This section presents detailed guidelines for preparing your entry materials. Please follow these guidelines carefully. As a further aid to your preparation of these entry materials, refer to the Entry 4 Assembly Final Inventory Form and *Pack & Ship*.

In developing your Description and Analysis and Reflective Summary, you may find it helpful to refer to Writing About Teaching in *Get Started*. Your response will be scored based on the content of your Description and Analysis and the support given to them by your documentation. However, it is important to proofread your writing for spelling, mechanics, and usage.

Your Description and Analysis must:

- Be typed in double-spaced text on 8.5" X 11" paper with one-inch margins on all sides using Times New Roman 12 point font. Print on only one side of each page. Pages with text on two sides will count as two pages. Consult Formatting Written Materials in *Forms & Specs* for more specific instructions.
- Be written in English.
- Have your Candidate ID number in the upper right corner on all pages. If you are using a word-processing program, you may find that it saves time to create a "header" that will print your Candidate ID number on each page.
- Be legible. Be sure that your printer's ribbon or toner cartridge is in good condition.
- Be labeled as shown in the example provided in the "Assembling Your Entry" section to indicate if the Description and Analysis is for your first accomplishment, second accomplishment, etc.
- Be no longer than **10 typed pages in total**.

Your documentation must:

- Be written in english.
- Be no larger than 8.5" X 11" in size. **Do not submit original certificates or awards as they will not be returned.** For larger materials or three-dimensional objects, submit photographs rather than the objects themselves.
- Have your Candidate ID number in the upper right corner on all pages.
- Be labeled as shown in the example provided in the "Assembling Your Entry" section to indicate if the documentation is for your first accomplishment, second accomplishment, etc.
- Be legible. Multiple pages of evidence should not be reduced to one sheet unless the resulting font size is no smaller than 12 point, nor should small pieces of evidence from different Description and Analysis sets be put on the same page.
- Be no longer than **16 single-sided pages in total**. Double-sided pages will count as two pages. For the documentation, this means **16 sheets of paper**, whether or not each piece of paper has text and/or images on the entire page or not.

When submitting documentation, use the guidelines below to remove information that identifies you geographically or that identifies a third party, such as a parent's last name. This is to protect the identities

of students and to ensure that assessors do not draw conclusions about your response based on ideas about where you teach:

- Do not use the last names of students and their families. However, if a parent signs a Verification Form, you do not have to remove his/her last name.
- Do not remove last names of colleagues and others who have signed Verification Forms.
- Leave last names in place when an artifact is printed matter that is not confidential in nature. For example, do not remove last names from a newspaper article, journal article, school board letterhead, and similar documents.
- It can be very difficult to remove all traces of school identity from an artifact, since the impact of many school-related documents is at least partly derived from the authority behind the institution. Therefore, it is acceptable to leave in school and institution identifiers if this information is significant.

Your Reflective Summary must:

- Be typed in double-spaced text on 8.5" X 11" paper with one-inch margins on all sides using Times New Roman 12 point font. Consult Formatting Written Materials in *Forms & Specs* for more specific instructions.
- Be written in English.
- Have your Candidate ID number in the upper right corner on all pages. If you are using a word-processing program, you may find that it saves time to create a "header" that will print your Candidate ID number on each page.
- Be legible. Be sure that your printer's ribbon or toner cartridge is in good condition.
- Be no longer than **2 typed pages in total**.

The responses you submit for this entry must meet all of the requirements above. Failure to meet the requirements may make it difficult for assessors to locate evidence, which could impact your score.

Assembling Your Entry

When you have completed each Description and Analysis, documentation, and the Reflective Summary, assemble the parts of your entry. You will have up to:

- **10 pages** of Description and Analysis;
- **16 pages** of documentation; and
- **2 pages** of Reflective Summary.

You may have multiple pages of documentation for one accomplishment and a single page for another accomplishment.

Assemble these pages so that the assessors can easily see how the Description and Analysis and documentation fit together. Assessors are trained to score your entry by first reading the Description and Analysis of an accomplishment, and then reviewing the documentation for that accomplishment.

Assemble each Description and Analysis and its associated documentation as a discrete set of materials. You will simply place the documentation pages for an accomplishment immediately behind the Description and Analysis pages for that accomplishment and order the sets from the first to the last accomplishment.

A page that has text on 50% or less of the page will count as a half page; a page that has text on more than 50% will count as a full page. This may result in your using more than 10 sheets of paper for your Description and Analysis, but the total amount of text should be **no more than 10 pages**. For example, you may have chosen to include 6 accomplishments, with each Description and Analysis using 1½ pages. In this case you will use and submit a total of 12 sheets of paper, but the Description and Analysis will use only 9 pages of text.

Labeling your documentation. It is critical that you label every page of documentation so that it is clearly identified as pertaining to a particular accomplishment. At the top of each page of documentation, write "Documentation for Accomplishment #_____" and fill in the number of the accomplishment.

Labeling your Description and Analysis. You must also label each Description and Analysis with a number that identifies which accomplishment you are describing. Title the first page of each Description and Analysis with the accomplishment number at the top of the page, e.g., "Accomplishment #_____."

Page Numbering. It is also important that assessors be able to reconstruct your response if the pages get mixed up. After the entire response is ordered the way you want it, number the pages sequentially, starting with page number 1 on the first page of your first Description and Analysis. Continue numbering the pages of Description and Analysis and documentation consecutively, in the order in which an assessor should read the response. Place the page number in the same place at the bottom of each page. It is acceptable to number pages by hand.

Inserting the Cover Sheets. After the entire response has been assembled and the pages have been numbered, find the Accomplishment Cover Sheet at the back of this entry. Photocopy it as many times as needed (so that you have a cover sheet for each accomplishment), and number each cover sheet in the space provided. Then, insert Accomplishment Cover Sheet #1 in front of the first page(s) of your first Description and Analysis, followed by the page(s) of documentation for your first accomplishment. Place Accomplishment Cover Sheet #2 in front of the first page(s) of your second Description and Analysis, followed by the page(s) of documentation for your second accomplishment. Continue for all your accomplishments. **Do not put page numbers on the cover sheets.**

The Assembling Your Entry Chart depicts the way you would order your cover sheets, Description and Analysis, and documentation.

Note: Your **two-page** Reflective Summary and its cover sheet should be paper-clipped separately from the Description and Analysis and documentation assembly shown on the Assembling Your Entry Chart.

ASSEMBLING YOUR ENTRY

1st Page of Description

Accomplishment
Cover Sheet #1

2nd Page of Description

Candidate ID#
Description of Accomplishment #1

Text of description of
Accomplishment #1

Page 1

2nd Page of Description

Candidate ID#
Description of Accomplishment #1

Text of description of
Accomplishment #1
continued

Page 2

1st Page of Documentation

Candidate ID#
Documentation of
Accomplishment #1

Text, photos, etc.
that make up
documentation for
Accomplishment #1

Page 3

2nd Page of Documentation

Candidate ID#
Documentation of
Accomplishment #1

Text, photos, etc.
that make up
documentation for
Accomplishment #1

Page 4

3rd Page of Description

Accomplishment
Cover Sheet #2

3rd Page of Documentation

Candidate ID#
Documentation of
Accomplishment #2

Text, photos, etc.
that make up
documentation for
Accomplishment #2

Page 6

4th Page of Description

Candidate ID#
Description of Accomplishment #3

Text of description of
Accomplishment #3

Page 7

Entry 4

Cover Sheets and Forms

All cover sheets and forms required for this entry are listed below and can be found in Forms & Specs. To read and print these documents, you must install Adobe Acrobat Reader® software on your computer. You may download Adobe Reader for free by following the instructions provided by Adobe Systems. Responses can be entered electronically and printed in Adobe Reader. However, Adobe Reader will not allow you to save the forms. You will need to print your completed forms or obtain a full version of Adobe Acrobat in order to save your work.

As you prepare your portfolio, keep in mind the following:

- The Entry 4 Assembly Final Inventory Form and Candidate Release Form, when complete, are submitted in the Forms envelope, **not** the envelope for this entry.
- The Accomplishment Cover Sheet and Reflective Summary Cover Sheet contain directions. Adhere as closely as possible to the directions on these cover sheets. Information that you are asked to supply on cover sheets may be electronically entered directly into the space provided, single-spaced using 12 point Times New Roman type, or handwritten.

Packing and Returning Your Portfolio Entries

Please refer to the Entry 4 Assembly Final Inventory Form and *Pack & Ship* for detailed instructions and diagrams that show you how to arrange your materials before placing them in the envelopes provided.

We provide detailed instructions for assembling and packaging your entries to ensure your entries are easily inventoried. Staff at the NBPTS Processing Center and scoring sites need to follow a detailed, ordered list when they check-in your portfolio and entries. Therefore, it is important to make sure that no materials are left out of an entry envelope and that no materials are placed in the wrong entry envelope. **Incorrectly packaged entries may not be scoreable.**

Cover Sheets and Forms

Listed below are all the cover sheets and forms you need to complete this entry.

For Your Entry 4 Envelope

- Entry 4 Cover Sheet
- Contextual Information Sheet
- Accomplishment Cover Sheet*
- Reflective Summary Cover Sheet
- Communication Log
- Verification Form**

For Your Forms Envelope

- Entry 4 Assembly Final Inventory Form
- Candidate Release Form

For Your Records

- Verification Cover Letter**

*Print as needed.

**Provide both the cover letter and the form. Print as needed.

Pack & Ship

General Portfolio Requirements

NBPTS provides detailed instructions for assembling and packaging your entries to ensure your entries are accurately inventoried. Staff at the NBPTS Processing Center and scoring sites need to follow a detailed, ordered list when they check-in your portfolio and entries. Therefore, it is important to make sure that no materials are left out of an entry envelope and that no materials are placed in the wrong entry envelope. ***Incorrectly packaged entries may not be scoreable.***

It is your responsibility to review your portfolio materials prior to submitting them to NBPTS to ensure that they are complete and appropriate. You should verify that all written work is legible and that the audio and video quality of your video recordings are sufficient for a scorer to comprehend.

All of your portfolio materials must fit into the NBPTS shipping box, which has approximate dimensions of 14" X 11" X 2.5". When you have placed all of your required materials into this box, it should close easily. Please do not overstuff the box or alter its dimensions; you will weaken the box and increase the possibility of materials being lost in transit. ***Materials that arrive at the NBPTS Processing Center in an altered NBPTS box will NOT be scored.***

You will be notified when your portfolio has been received by the NBPTS Processing Center. Upon receipt, an initial inventory will be taken. The entries you submitted will be recorded, and we will identify whether the correct forms were submitted. Entries will then be prepared for scoring and shipped to scoring sites.

In order for NBPTS assessors to render scores, it is critical that all required components are included in the submission. Due to the number of portfolios we receive in a very short time, NBPTS is not able to notify candidates of missing components. You may check the status of your materials online through *My Profile* in the National Board Registration and Information Center (NBRIC) at www.nbpts.org. However, NBPTS can not accept any components, additions, or substitutions to any portfolio entry after initial receipt. ***Materials received after the portfolio deadline will not be scored.***

If a critical component (e.g., Written Commentary, video recording, student work samples) is missing from an entry, the entry will be unscoreable. If this happens, your score profile will report an "NS" in the performance area for that entry, meaning it was "Not Scored." If an entire entry is missing from your portfolio box, the performance area for the missing entry will be **blank** on your score report. ***Candidates with incomplete score profiles will not achieve National Board Certification.***

These *Pack & Ship* instructions include the following sections:

- Assembling Your Portfolio Entries
- Materials Needed
- Placing Portfolio Labels
- Placing Your Candidate Labels
- Submitting Your Portfolio
- Shipping Your Portfolio

Assembling Your Portfolio Entries

As mentioned previously, when your portfolio reaches the NBPTS Processing Center an inventory is taken to record the entries that are present. After the inventory has been completed and the portfolio deadline has passed, the portfolio entries are sent to scoring centers. In order for assessors to accurately and quickly identify whether all of the required materials have been submitted, please make sure that all of your portfolio materials are clearly labeled, clipped together and organized according to the following directions:

1. **Do not staple or bind the documents in any way. Use paperclips only.**
2. The materials for each entry should be placed in the order shown in the Final Inventory Form for Entry 1, Entry 2, Entry 3, Entry 4, and Forms.
3. In the *Forms & Specs* section of these instructions, there is a cover sheet for each entry and for each component of an entry. When you are ready to organize your portfolio materials, please use these cover sheets as directed. The cover sheet for the entire entry will be the first page of the entry, and the cover sheet for a component of an entry will be the first page of the component.
4. Forms-at-a-Glance is a master list of your portfolio forms. This tool provides a detailed map of where each form must be placed when you prepare your portfolio for submission.

Using the cover sheets helps both the staff who will inventory your portfolio and the assessors who will score your portfolio identify your materials.

Materials Needed

To assemble your portfolio, gather the following materials:

>> Your completed portfolio entries (refer to this page on your CD).

>> Copies of a government-issued photo ID, enlarged 200%.



>> Candidate identification bar code labels.



>> Label sheet (envelope, video, & box labels).



>> Portfolio envelopes.



>> Portfolio shipping box.



Placing Portfolio Labels

Using the label sheet provided, place the labels as shown below:



>> Place here on all 5 portfolio envelopes.



>> Place here on back of portfolio shipping box.



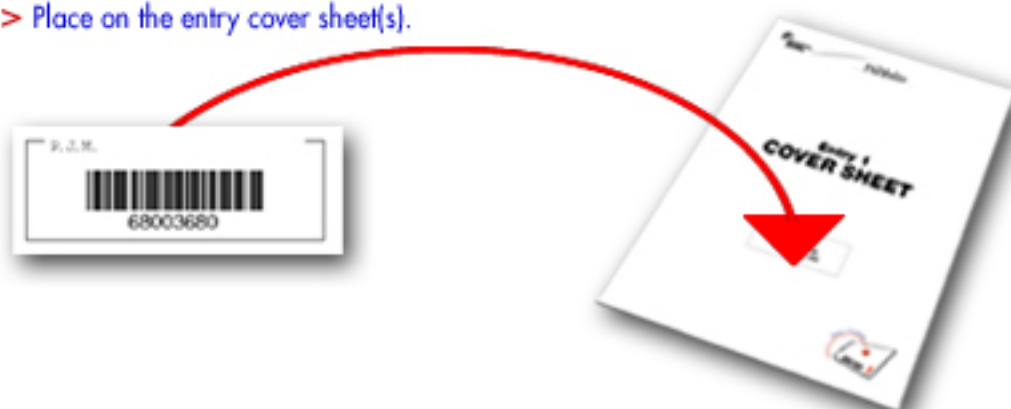
>> Place one label on the face of each videotape.



Placing Your Candidate ID Labels

When you have completed your portfolio, you will attach one of the **Candidate Identification bar code labels** (preprinted with your ID number) to each of the following:

>> Place on the entry cover sheet(s).



>> Place on each entry & forms envelope label.



>> Place on each videotape label.



>> Place on the portfolio shipping box.



Submitting Your Portfolio

When you have completed the entries and assembled them in order, as described in the entry instructions and in the Final Inventory Forms, you should assemble all of the packaging materials that will be needed to ship the portfolio to the NBPTS Processing Center. You should have the shipping box, envelopes, portfolio label sheet, and candidate bar code labels ready to use as directed below.

1. Reread each of your Written Commentaries before insertion in the appropriate entry envelope. As you read, make sure you have addressed all of the questions posed in the entry instructions for each Written Commentary. Also verify that you have organized the sections of each Written Commentary correctly. *If you accidentally omit a section or inadvertently include a section that belongs in a Written Commentary for another entry, your score could be reduced.*
2. Check each of your student work samples against the description you have provided in your Written Commentary for each student work entry. Prior to insertion in the entry envelope, you need to be sure that the lesson you have described in the Written Commentary is the same lesson that elicited the student work samples you have selected as evidence of your teaching. *If you include the wrong Written Commentary with your student work samples, that Written Commentary will be used to score your entry.* Please be sure to use the appropriate cover sheets and mark the work samples with student identifiers such as "Student A" or "Student B" and omit student last names.
3. Check each of your video recordings against the description you have provided in your Written Commentary for each video entry. Prior to insertion in the entry envelope, verify that the lesson you have described in the Written Commentary is the same lesson that you have included on your video evidence. *If you include the wrong Written Commentary with a video entry, that Written Commentary will be used to score your entry.*
4. Before you attach the labels to your videos or DVDs, take a moment to review the contents of each tape/DVD. Make sure that you attach the appropriate entry label to each of your videotapes to avoid mislabeling. *If a video is mislabeled when received for scoring, it will be scored as a submission for the entry shown on the label.* Please be sure to rewind videotapes prior to submission.
5. Affix one videotape label to each videotape you created. Affix one of your candidate bar code labels to the videotape label in the space provided.
6. If you are submitting video evidence on DVD, refer to the separate packing instructions for DVD submittals that were included with your portfolio kit.
7. Affix a candidate bar code label to the cover sheet for each entry and to the cover sheet for your forms. Affix a candidate bar code label to each entry envelope in the space indicated on the envelope label.
8. Paperclip the cover sheet for each written component within an entry to the component. For example, paperclip the Written Commentary Cover Sheet to all pages of the Written Commentary. *Do not staple or bind materials together.* Make sure that the entry matches the entry title and number on the envelope label. Make sure that the entry titles on video recordings match the entry title on the Written Commentary and on the envelope label.
9. Insert the materials for each entry into the appropriate envelope, making sure that the materials are in the correct order. Make sure that all materials are included. **After the initial receipt of your portfolio, NBPTS cannot accommodate requests to add or substitute materials.**

10. Please note that you **will not receive a score for any entry that is missing, or for an entry that is missing a critical component** (e.g., Written Commentary, video recordings, or student work samples). Candidates with incomplete score profiles will **not** achieve National Board Certification. You will **not** be notified of any missing critical components. It is your responsibility to make sure that your portfolio entry materials are complete when they are submitted.

Do not include pages of the portfolio instructions or other unscorable materials that are **not** required as part of an entry submission. Required components are listed on the Candidate Final Inventory forms (e.g., cover sheets, Written Commentary, student work samples, Classroom Layout Form, etc.). It is not necessary to return any other pages of the portfolio instructions in order to have your **completed** entries scored. Extraneous materials submitted with portfolio entries may impede the assessors' ability to identify your actual entry submission. If you do not have scoreable materials for an entry, please leave that entry envelope empty and **include a note in your portfolio box that states which entries are not included in your submission.**

11. Make sure you have signed a Candidate Release Form and Final Inventory Form for each entry. Place these forms and the Attestation Form into the Forms envelope. ***The Attestation Form must be included or your portfolio will not be scored.*** Affix a candidate bar code label to the Forms envelope in the space indicated on the envelope label.
12. If you are submitting student work or video evidence in Spanish, you must provide a written English translation for that evidence in your entry envelope, and **you must check the appropriate box on your entry envelope label indicating that evidence in Spanish is included or your response will not be scored.** The translation must include your candidate ID number, the Entry title, and any necessary student identifiers (do not include students' names). The pages of your translation do not count toward your page totals.
13. In order to assist you in making sure that you submit all critical components, Assembly Checklists listing the required submissions for your certificate area are provided. We strongly suggest that you have another person use these checklists to inventory your portfolio entries after you have completed all of the above steps. This person should not be very familiar with the materials that you are submitting. If you have included all materials, organized correctly, the person will be able to identify each component and check it off to verify that it is included in your portfolio.
14. **Be sure to make copies of all of the materials in your portfolio submission prior to mailing. Copy all Written Commentaries, student work samples, and instructional materials. Make copies of your video recordings using the directions provided in *Get Started*. Keep all materials in a safe, easily accessible place. This will be an invaluable step in the event your submission is lost en route to the NBPTS Processing Center, or arrives in damaged condition. The copies you retain will also be useful for reviewing in conjunction with your score results. Your original materials will not be returned to you.**

Shipping Your Portfolio

1. Seal all the envelopes.
2. Place the envelopes into the NBPTS shipping box.



3. Affix one of your candidate bar code labels to the box in the space that says: "Place Your Candidate Bar Code Here." **It is very important that you affix this label to the *outside* of the box. Failure to do so will slow the check-in of your portfolio.**
4. Affix the "Certificate Area" label to the box in the space that says: "Place Certificate Area Label Here." **It is very important that you affix this label to the *outside* of the box. Failure to do so will slow the check-in of your portfolio.**
5. Be sure that your portfolio box is **postmarked** by the established deadline for portfolio submission. We suggest that you use a method of shipment that will allow you to trace your submission in the event that it does not arrive when expected.

Ship your portfolio materials to:

**NBPTS Processing Center
11827 Tech Com Way, Suite 200
San Antonio, Texas 78233**

To ensure that your portfolio materials arrive on time, please do the following:

- ship your portfolio box using a traceable shipping method;
- verify through your shipping agent that your box will arrive at the NBPTS Processing Center on or before the established deadline for your certificate area.

Organizing and Time Management

The biggest challenge you will face in this assessment may well be the organizing and management of materials and time.

There are several different features of the Organizer designed to facilitate completion of the portfolio entries. You are not required to use the following features—all are provided as optional help for you.

The first thing we suggest you do is to plan a strategy for gathering your evidence of practice on multiple different occasions of teaching.

If you teach in a setting in which you have different classes, we encourage you to use more than one class in completing your portfolio. Some certificate areas require that student work samples be from different students. Keep in mind that your final choice for your entries must come from different teaching units.

To keep all of this straight, and to help chart your progress, we have provided each of the following in the *Organizer* :

A ***Portfolio Timeline*** that breaks down the steps to completing your portfolio in three different timelines.

Forms-at-a-Glance is a master list of your portfolio forms. This tool provides a detailed map of where each form must be placed when you prepare your portfolio for submission.

An ***Entry Tracking Form*** that gives you space to record what classes you video recorded, what unit was being taught, and what student work you chose for each entry. A Word version of this form is also provided.

A ***Documented Accomplishments Categories Chart (Microsoft Word format)*** to help you think about the different areas in which you work outside the classroom to improve student learning.

A ***Communication Log (Microsoft Word format)*** is one possible way to track your contacts with various people outside the classroom concerning your students and their learning.

A ***Summary of Portfolio Entries*** that provides you with a concise overview of the requirements, materials, and submission rules for each entry.

A link to the ***National Board Certification Assessment Calendar***
http://www.nbpts.org/become_a_candidate/assessment_process

You may use whatever organizing and tracking devices seem best for your situation. We strongly suggest that you make use of these or similar devices in preparing the materials for this assessment.

Support is available. Please visit the National Board's Candidate Support & Higher Education Initiative Web site. http://www.nbpts.org/for_candidates/candidate_support

If you do not have Microsoft Word, you may want to download Microsoft Word Viewer. Microsoft Word Viewer is a freeware program that allows users who do not own Microsoft Word to view and print documents that were created in Word. You cannot edit an open document in Word Viewer; however, you can copy text to the Clipboard to paste it in other applications. Microsoft Word Viewer can be downloaded from the Microsoft Web site.

Self-Assessment of Entries

At least two weeks before you complete the packaging of each of your entries, you should read over the section of the entry directions called "How Will My Response Be Scored." Look over all of your written materials, and watch your video recordings or examine student work one last time. Ask a colleague to look for evidence of all of the things this section mentions as criteria for scoring this entry. If the evidence is not clear, revise your commentary as needed.

Check all of your materials—**written commentary, video recordings, student work, and forms**—to make certain that you have completed each according to the requirements.

Follow the directions in *Pack & Ship*. The instructions include convenient Assembly Checklists to use when you are checking the contents of your portfolio.

Your Portfolio Timeline

This chart offers 3 suggested choices of timelines to help you organize the steps needed to complete your portfolio. View each timeline and decide which is best for you. We recommend that you print your timeline from the PDFs provided on the following pages. Doing so will provide you with a reference as you complete each activity during the assessment process.

Your 3 Month Portfolio Timeline

3 Months

9 Months

15 Months

GET STARTED

- Read the [Intro](#) and [Standards](#)
- Plan your calendar
- Get **release forms** signed
- Work on [Get Started](#) activities

MONTH 1

1

2

3

4

MONTH 2

5

6

7

8

MONTH 3

9

10

11

12

13

COLLECT DOCUMENTATION

- Use your [Communication Log](#)
- Collect **documentation**
- Write a description of your **accomplishments**

MONTH 1

1

2

3

4

MONTH 2

5

6

7

8

MONTH 3

9

10

11

12

13

COLLECT EVIDENCE

- Video record classes
- Collect **student work samples**
- Review your **evidence**

MONTH 1

1

2

3

4

MONTH 2

5

6

7

8

MONTH 3

9

10

11

12

13

SELECT EVIDENCE

- Select your **video evidence**
- Select your **student work samples**

MONTH 1

1

2

3

4

MONTH 2

5

6

7

8

MONTH 3

9

10

11

12

13

CREATE WRITTEN COMMENTARY

- Do a self-assessment of your **entries**
- Draft your **Written Commentary**
- Draft your **Reflective Summary**

MONTH 1

1

2

3

4

MONTH 2

5

6

7

8

MONTH 3

9

10

11

12

13

COMPLETE WRITTEN COMMENTARY

- Complete **final drafts** of your **Written Commentaries**
- Complete **final drafts** of your **Reflective Summary**

MONTH 1

1

2

3

4

MONTH 2

5

6

7

8

MONTH 3

9

10

11

12

13

SUBMIT PORTFOLIO

- Gather all entry materials
- Copy all entry materials
- Follow all directions in [Pack & Ship](#)

MONTH 1

1

2

3

4

MONTH 2

5

6

7

8

MONTH 3

9

10

11

12

13

Your 9 Month Portfolio Timeline

[illegible]

Your 15 Month Portfolio Timeline

[illegible]

Resources

Entry Tracking Form

This form may be used to keep a record of which students, lessons, and units of instruction you elect to feature in each classroom-based entry. The Entry Tracking Form is also provided in Word format. We recommend you print the Word version of this form. If you wish, you may use the form provided or create your own.

Your Entry Choices				
Entry	Unit (must be three different units)	Lesson	Dates	Students Featured
1. Teaching a Major Idea Over Time				
2. Active Scientific Inquiry				
3. Whole Class Discussions About Science				

Resources

Summary of the Portfolio Entries for the *Adolescence and Young Adulthood/Science Assessment*

Rules for Submission

In order for the video recording and student work entries to be scored:

- The student work and video recorded entries must be from different lessons and different units of instruction.
- A minimum of 51% of the students in each class you use must be from 14 through 18+ years of age.
- Your Attestation Form must be complete and included.
- Written Commentaries must be typed. The length of your responses must not exceed the page limits given in the directions for the entry. The required font is 12 point Times New Roman. No other font is acceptable. Double-space all text. Consult Formatting Written Materials in *Forms & Specs*.
- Video recordings must be continuous and unedited, as directed, and not exceed the number of minutes specified by the entry instructions. Use new, blank, standard VHS videotapes or a new, blank DVD. Do not submit miniature or adapted formats, such as VHS-C. Do not use Super VHS videotape cartridges. Do not submit video recordings recorded in extended play (EP, LP, or SLP modes); submit video recordings recorded in standard play (SP) only.

Entry	Requirements	Required Materials
1. Teaching a Major Idea Over Time	Collect three samples of student work from each of two students. Complete a Written Commentary analyzing your teaching. Submit a culminating assessment.	<ul style="list-style-type: none">• Contextual Information Sheet• Entry Assembly Final Inventory Form• Written Commentary• Three Activities (each accompanied by a cover sheet)• Three Samples of Student Work (from each of two students)• Culminating Assessment• Student Release Forms• Candidate Release Form

2. Active Scientific Inquiry	<p>Make a video recording of you and your students conducting an investigation and discussing the results. Complete a Written Commentary analyzing your teaching.</p>	<ul style="list-style-type: none"> • Contextual Information Sheet • Entry Assembly Final Inventory Form • 3 Video Segments (total length of 20 Minutes) • Written Commentary • Student Release Forms • Adult Release Form(s), if needed • Candidate Release Form • Classroom Layout Form • Photocopy of photo ID
3. Whole Class Discussions About Science	<p>Make a video recording of you and your students engaged in discussion about scientific concepts and/or data. Complete a Written Commentary analyzing your teaching.</p>	<ul style="list-style-type: none"> • Contextual Information Sheet • Entry Assembly Final Inventory Form • 20-minute Video Recording • Written Commentary • Student Release Forms • Adult Release Form(s), if needed • Candidate Release Form • Classroom Layout Form • Photocopy of photo ID
4. Documented Accomplishments: Contributions to Student Learning	<p>Describe and document those activities associated with your teaching that involve students' families and community, collaboration with colleagues, and your growth as a learner.</p>	<ul style="list-style-type: none"> • Contextual Information Sheet • Entry Assembly Final Inventory Form • Description and Analysis • Documentation • Reflective Summary • Candidate Release Form

Resources

Portfolio-Related Terms

This section is meant to provide general definitions of some of the terms frequently used in the portfolios. (Some of these terms may not apply to your certificate area, and you will not find them in the text of your portfolio entry directions.)

You may use this section as a quick reference, but you should view the NBPTS *Standards* for your certificate area and the portfolio entry directions as the final authorities for how you complete the work you will submit. It is your responsibility to familiarize yourself with the *Standards*, and to study the entry directions carefully before you make decisions about which lessons and students you will feature in any entry. The *Standards* will give you additional examples for some terms, such as "assessment."

Terms

Assessment

The formal or informal process of collecting, analyzing, and evaluating evidence about what students know and can do. There are multiple forms of formal and informal assessments. Formal assessments may include, but are not limited to, classroom tests, performance assessments, and standardized tests. Informal assessments may include, but are not limited to, observations, checklists, and anecdotal records.

Assessor(s)

The person(s) trained to score NBPTS portfolio entries and assessment center exercises. To be an assessor, a person must possess a baccalaureate degree, have three years of teaching employment, be currently teaching in the certificate area he or she will score, and successfully complete assessor training. Current candidates for National Board Certification are not eligible to be assessors.

Assignment

Any formal or informal prompt or other device used to cause students to produce responses.

Bilingual

Able to function in two languages. In the portfolios, **bilingual** refers to any classroom in which the students are English language learners and use their first language to learn content and to aid in their English language development.

Cite

To mention or bring forward as support, illustration, or proof. When portfolio directions ask you to "cite specific examples" of something, you should provide evidence that clearly supports whatever point you are trying to make in your response to the questions the portfolio asks.

Class

A section or group of students that you teach during a specified time period (e.g., 4th period English). This is different from a Subject Area (e.g., English). This distinction is important because although you may teach several classes in a subject area, portfolio directions ask you to consider a specific group of students in a class, rather than all of the students in a particular subject area.

Class Set

A group of materials for an assignment that includes the student work samples of every student in a class. **Do not submit class sets.** You must submit student work samples and materials

according to the specific entry directions. You must submit student work only for those students whose work is featured in your submission.

Content

A subject area such as math, science, social studies/history, or technology education. In content-based ESL, English would be taught in conjunction with a subject area to a group of students of limited English proficiency (LEP), who may, but do not necessarily, share a similar first language.

Disciplinary

Of or relating to a specific field of academic study. (e.g., social studies, biology, etc.)

Elicit

To bring or draw out. (For example, some of the AYA/Mathematics entries require that an assessment/prompt "elicit mathematical thinking and reasoning from students.")

Evidence

Evidence that has a solid foundation in fact and would be convincing to most people. The basis for this kind of evidence is strong, clear, and convincing. It is not easily disproved by a difference in interpretation. The presentation of evidence does not remove the need for you to write detailed and well-organized analyses, because assessors still need to know that you recognized this evidence, and how you used this evidence in your teaching.

Evoke

To summon or call forth. In the context of portfolio entries, an assignment/prompt that evokes student responses causes students to produce that work.

Evolution

Used in a general sense, this could refer to gradual changes that take place in your classroom or in your teaching practice.

Insight

The capacity to grasp the true nature of a situation; the act or outcome of grasping the inward nature of things or of perceiving in an intuitive manner. If an entry directs you to give insightful reflection, you must show assessors that you grasp the true nature of the teaching situation, or that you understand it in a perceptive or intuitive way.

Instructional Materials

An item used or produced during a teaching sequence that will help assessors better understand the activity featured in your video recording or Written Commentary. (e.g., rubric, transparency, Internet web page, etc.)

Instructional Sequence

A group of related lessons or activities supported by a common goal or theme. The instructional sequence is not limited to one lesson or activity. The time interval should be sufficient to present evidence of students' skill or understanding of the topic.

Interdisciplinary/Cross-disciplinary

Of, relating to, or involving two or more academic disciplines that are usually considered distinct. Interdisciplinary or cross-disciplinary may simply refer to two different branches of science or can be as different as social studies and the arts.

Interpretation

The explanation of a conclusion you reached about the results of a teaching situation. An interpretation explains to assessors how you understand the results of an event and what these results mean to you. This is a basic definition. See "Writing About Teaching" for more detailed explanations and writing samples.

Lesson

A period of instruction; an assignment or exercise in which something is to be learned; an act or an instance of instructing; teaching; an experience, example, or observation that imparts new knowledge or wisdom.

Manipulatives

Objects with moving or interchangeable parts that are used as models to demonstrate the structure of something or how it works. (e.g., the set of sticks and balls that fit together to show the structure of molecules, geoboard)

Nonprint Text

Includes instructional materials that are not part of a curriculum textbook with the exception of illustrations. Nonprint items include film, drama, photography, and any other visual or audio performances. Nonprint items may contain some text (e.g., a comic strip).

Pedagogical/Pedagogy

Related to the art or profession of teaching, or related to training or instruction.

Prompt

Anything that causes or stimulates students to produce responses. A prompt can be formal or informal, and could be anything from a specific assignment to a piece of art, a photograph, or a theory in your field of teaching.

Scaffolding

Various means of supporting learning and making new material or concepts accessible to students in which teachers methodically build on students' prior knowledge in order to teach new skills, procedures, and concepts.

Small Group Discussions

This term is usually used when describing the requirements of video-based entries. For the purposes of this kind of portfolio entry, a small group generally consists of three to five students, although this may vary based on the number of students a teacher has in a class and on specific directions for the entry. The main objective is to show the teacher facilitating discussion among students in the small groups.

Spanish Language Option

Candidates who select this option may submit student work samples and video recorded lessons in Spanish and/or English. **A translation must accompany the entry.** This option is not available to candidates who are seeking certification in the *English Language Arts* or *World Languages Other than English* certificate areas. (Note that *Early and Middle Childhood/Literacy: Reading-Language Arts* candidates may elect to use this option.)

Stimulus

Something causing or regarded as causing a response or action; an incentive. A stimulus can be a written work or visual object, an activity or event, directions given by the teacher, or anything that causes student responses to be produced. A stimulus might be a short story, and a prompt might be a writing topic you give students as a basis for their response to that story.

Student Response

Any kind of student work that results from an assignment by the teacher. This may be a formal writing assignment, a drawing, a journal entry, or any other work a student completes under a teacher's guidance.

Student Work

Student work samples submitted with your portfolio should follow the requirements in the "Format Specifications" provided for each entry. Be sure to submit only the number of student work samples that is required by the entry. Remember that nothing submitted with your portfolio will be returned, and all student work should show only the first names of students to ensure their anonymity. Consult each entry for page limits on student work samples submitted. Candidates whose instruction is predominantly in Spanish may submit student work samples in English and/or Spanish, with the exception of candidates seeking certification in English Language Arts or World Languages Other than English.

Take One!TM

A standards-based professional development opportunity that was built from NBPTS' praised and respected National Board Certification[®] program. A video portfolio entry pre-selected by NBPTS is available for purchase in each of the currently available certificate areas. *Take One!* customers

receive the same portfolio entry instructions as candidates for the certification program and submit their work for scoring, which is conducted simultaneously with that of the NBPTS certification program. The score received on *Take One!* portfolio entries is valid for three years and may be applied to the certification program by those who choose to pursue National Board Certification as a candidate. Individuals who purchase *Take One!* as professional development also receive a personal activity book that offers guidance on evidence-based teaching and the architecture of accomplished teaching.

Tangible Products

Some physical result of a lesson that reveals something about the teaching, the learning process, or students' learning or understandings. This could be student work, a model produced during the lesson, and/or a piece of artwork.

Technology

Up-to-date tools and resources that support students' learning. Consult your certificate's *Standards* and make sure that the technology you choose to feature is relevant and meaningful to your certificate area, your students, and your instructional goals.

Unit

A section of an academic course focusing on a selected theme or concept. A unit may also correspond to a chapter in a curriculum text.

Visual Cues

Devices used to enhance understanding. (e.g., a student's gestures, illustrations, etc.)

Visual Literacy

The ability to recognize and understand ideas conveyed through visible actions or images (pictures).

Whole Class Discussions

This term is usually used when describing the requirements of video-based entries. A whole class discussion is one in which the entire class is involved in a discussion as a group. This does not mean that each and every student must be shown in the video recorded lesson. The main objective in a whole class discussion is to show that the teacher is effectively engaging the entire class as a group. The video recording should show some interaction with specific students, but it is not necessary to zoom in on every student. However, it should be clear in the video recording you submit that the students are **actively engaged** in the discussion.

Some definitions are taken from or based on those found in *The American Heritage College Dictionary*, Third Edition, ©1997, 1993 by Houghton, Mifflin Company. All rights reserved.

Resources

Additional Resources and Support

Technical Assistance

Call customer support at 1-800-22TEACH Monday through Friday, 8:00 a.m. to 6:00 p.m. CST.

Adobe® Acrobat® Reader® is free software that lets you view and print Adobe Portable Document Format (PDF) files on all major computer platforms. You cannot edit an open document in Adobe Acrobat Reader; however, you can copy text to the Clipboard to paste it in other applications. Adobe Acrobat Reader can be downloaded from the Adobe Web site.

Microsoft Word Viewer is a freeware program that allows users who do not own Microsoft Word to view and print documents that were created in Word. You cannot edit an open document in Word Viewer; however, you can copy text to the Clipboard to paste it in other applications. Microsoft Word Viewer can be downloaded from the Microsoft Web site.

Information about **PZM® and other microphones** can be found at www.crownaudio.com/mics.htm (link provided). You can also check with other audio retailers to find the appropriate microphone for your use.

The NBPTS Web site contains a wealth of information to support your candidacy. Visit www.nbpts.org for information regarding:

NBPTS Assessment Calendar

http://www.nbpts.org/become_a_candidate/assessment_process

Candidate Support & Higher Education Initiatives

http://www.nbpts.org/for_candidates/candidate_support

Managing Your Candidacy

http://www.nbpts.org/for_candidates/my_profile

Eligibility Verification Requirements and Forms

http://www.nbpts.org/become_a_candidate/eligibility_policies

NBPTS Candidate Certificate Areas

http://www.nbpts.org/for_candidates

Scoring Guides

http://www.nbpts.org/for_candidates/scoring

Nonstandard Accommodations Policies and Forms

http://www.nbpts.org/for_candidates/assessment/before_scheduling

NBPTS Portfolio Instructions

http://www.nbpts.org/for_candidates/the_portfolio

NBPTS Candidate Inquiry Service (FAQs)

http://www.nbpts.org/help_and_faqs

National Board's Ethics Policy

http://www.nbpts.org/become_a_candidate/eligibility_policies

Resources

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Forms

Cover sheets and forms are provided to ensure consistent organization of portfolios, gather important information, and provide a tool by which candidates can obtain permission from students, parents, and classroom assistants. Cover sheets are primarily used to separate the main pieces of an entry. Forms are used to gather additional information that will be used during scoring.

Candidates provide the information needed for each form either on the form itself or on a separate piece of paper, depending on the instructions given. Cover sheets and forms are provided in Adobe® Acrobat® PDF format, and responses can be written in or entered electronically. The fields have a maximum number of characters—candidates will not be able to exceed this limit. It is recommended that candidates compose their responses before entering them into the form fields. It is important that responses are complete before printing each form.

To read and print these documents, candidates must install Adobe Acrobat Reader® software on their computers. Candidates can download Adobe Reader for free by following the instructions provided by Adobe Systems. Responses can be entered electronically and printed in Adobe Reader. However, Adobe Reader will not allow candidates to save the forms. Candidates will need to print their completed forms or obtain a full version of Adobe Acrobat in order to save their work.

Three Categories of Cover Sheets and Forms

There are many different cover sheets and forms candidates must use in the process of completing their portfolios. These cover sheets and forms have been organized into three categories. The three categories and a few of the main cover sheets and forms are discussed below.

1 For Your Records

The forms candidates must keep for their records have the "Retain for Your Records" icon in the lower right-hand corner. Most of the forms in this category are used to obtain permission from students, parents, and colleagues. Candidates are urged to begin the permission process as soon as possible.



The Student Release Form is designed to secure the permission of persons appearing in a video recording or for the use of student work as part of your submission. For each classroom-based entry, you must obtain a Student Release Form for every student who appears in a video recording and for every student whose work you submit. The Student Release Form is provided in a variety of foreign languages to meet the needs of parents and guardians whose primary language is not English. Any adult who appears in a video recording or photograph, such as a student-teacher, teacher's aide, parent, or colleague, must sign an Adult Release Form for the use of his or her image.

Do not submit Student Release Forms or Adult Release Forms with your completed portfolio. It is your responsibility to keep these release forms on file in the event a question arises regarding these permissions.

You may print as many copies of these release forms as you need. One release form is sufficient for all appearances and uses of a student's work in your portfolio. In order to have the appropriate release form on file for each entry, you may make photocopies of signed release forms, so long as one of the forms on file is the original signed form.

As you prepare your portfolio, keep in mind the following:

If a parent or legal guardian does not give you permission to video record a student or to submit student work, you must ensure that the student does not appear in your video recordings or photographs and you must not submit any work from that student. Similarly, if an adult who is in your classroom does not give you permission to video record him or her, you must ensure that the adult does not appear in any of your video recordings.

We strongly recommend that you obtain permission for all of your students (and anyone else who may appear in a video recording or photograph) as soon as possible after receiving your portfolio kit. If you do this, you will not have to be concerned about release forms later in the process. Previous candidates have reported that it's helpful if you write a cover letter to your students' parents explaining the purpose of the assessment. Your letter should state that the NBPTS assessment is about your practice, not the students, and also explain why the permission is important.

2 For Your Entry Envelopes

Candidates must submit all cover sheets and forms with the "Place in Entry Envelope" icon in the lower right-hand corner in the appropriate entry envelope.



Contextual Information Sheet

This form is designed to gather information about your overall teaching context. Complete and copy the form as instructed below. Although you will submit this form with each of your entry responses, you may need to complete it only once or twice and copy it for the remainder of your entries. Read the instructions that follow carefully. The instructions are repeated in more detail on the form itself. This form must be submitted in each of the Entry envelopes.

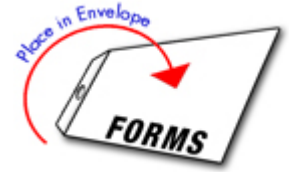
If you are teaching in only one school, and all of the students you feature are from the same school, you will complete the Contextual Information Sheet once, make copies of it, and enclose a copy of the form in each of your entry responses. If you are teaching in more than one school, the aspects of your teaching may vary between schools because of differences in the broader context of each school. If your entries feature students from each of these schools, complete separate Contextual Information Sheets for each different school setting. Make copies of the different sheets and include in each entry the sheet that applies to it. Remember that each entry gives you a further opportunity to give details about the particular students or class you are teaching for that entry.

Classroom Layout Form

This form is required for each video-based entry. The purpose of the form is to allow you to draw by hand the layout of your classroom at the time of the recording so that assessors can better understand the video recording. However, you may instead print out a drawing made on a computer or use an existing classroom diagram, so long as the features of your classroom environment are clearly represented. A classroom layout is required for all video-based entries.

3 For Your Forms Envelope

The "Place in Forms Envelope" icon appears in the lower right-hand corner of cover sheets and forms that must be submitted in the Forms envelope. Inventory and release forms must be submitted in the Forms envelope.



The Forms Cover Sheet

This cover sheet heads all other cover sheets and forms that are submitted in the Forms envelope.

The Forms Assembly Final Inventory

You must complete this inventory by checking each box and signing the statement at the bottom of the form. This sheet serves as a master inventory for the following forms: Candidate Release Forms (one for each entry) Entry-specific Final Inventory forms (one for each entry) the Attestation Form

The Candidate Release Forms Cover Sheet

This cover sheet heads the four Release Forms.

Candidate Release Form

The Candidate Release Form records your permission to have your assessment materials evaluated by NBPTS assessors, used for educational research, and your awareness that all assessment submissions, copies, and entries become the property of NBPTS. You must complete a release form for each portfolio entry. All Release Forms are submitted in the Forms envelope.

The Entry Assembly Final Inventory Forms Cover Sheet

This cover sheet heads the four Entry Assembly Final Inventory forms.

The Entry Assembly Final Inventory

You must complete this inventory by checking each box and signing the statement at the bottom of the form. All Entry Assembly Final Inventory forms are submitted in the Forms envelope.

Attestation Form

This sheet, on which you attest that you have obtained releases as instructed for individuals whose images or work appear in your entry materials, is the final sheet submitted in the Forms envelope. You must submit this form with your portfolio, or your portfolio will not be scored.

Forms-at-a-Glance

Forms-at-a-Glance is a master list of your portfolio forms. This tool provides a detailed map of where each form must be placed when you prepare your portfolio for submission.

FORMS AT-A-GLANCE

For Your FILE RECORDS

Entry 1 Student and Adult Release Forms Cover Sheet

Student Release Forms
Adult Release Forms

Entry 2 Notes for Videocamera Operation

Student and Adult Release Forms Cover Sheet

Student Release Forms
Adult Release Forms

Entry 3 Notes for Videocamera Operation

Student and Adult Release Forms Cover Sheet

Student Release Forms
Adult Release Forms

Entry 4 Verification Cover Letter

For Your ENTRY 1 ENVELOPE

Entry 1 Cover Sheet

Contextual Information Sheet

Written Commentary Cover Sheet

Instructional Activity #1 Cover Sheets:

Student A Work
Student B Work

Instructional Activity #2 Cover Sheets:

Student A Work
Student B Work

Instructional Activity #3 Cover Sheets:

Student A Work
Student B Work

Culminating Assessment Cover Sheet

For Your ENTRY 2 ENVELOPE

Entry 2 Cover Sheet

Contextual Information Sheet

Written Commentary Cover Sheet

Classroom Layout Form

For Your ENTRY 3 ENVELOPE

Entry 3 Cover Sheet

Contextual Information Sheet

Written Commentary Cover Sheet

Classroom Layout Form

For Your ENTRY 4 ENVELOPE

Entry 4 Cover Sheet

Contextual Information Sheet

Accomplishment Cover Sheet

Verification Form

Reflective Summary Cover Sheet

For Your FORMS ENVELOPE

Forms Cover Sheet

Forms Assembly Final
Inventory Form

Candidate Release Forms Cover Sheet

Entry 1 Candidate Release Form
Entry 2 Candidate Release Form
Entry 3 Candidate Release Form
Entry 4 Candidate Release Form

Final Inventory Forms Cover Sheet

Entry 1 Assembly Final
Inventory Form
Entry 2 Assembly Final
Inventory Form
Entry 3 Assembly Final
Inventory Form
Entry 4 Assembly Final
Inventory Form

Attestation Form



Specs

This section presents detailed guidelines for preparing your entry materials. Please follow all formatting guidelines carefully. As a further aid to the preparation of your entry materials, refer to the Format Specifications section of the entry directions (links provided below) and *Pack & Ship*.

- Formatting Written Materials
- Photo Identification Specifications
- Entry 1 Format Specifications
- Entry 2 Format Specifications
- Entry 3 Format Specifications
- Entry 4 Format Specifications

Formatting Written Materials

Your Written Commentaries, Reflective Summary, and all other portfolio materials that you type are subject to the format requirements described below.

Required Font

The required font is 12 point Times New Roman. No other font is acceptable. You may, of course, bold or italicize headings or words and phrases in the body of your text that you wish to emphasize.

Spacing and Margins

You must double-space your text. All four page margins—right, left, top, bottom—must be one inch. Page numbers or other identifying information may appear in this one-inch space at the top or bottom of the page. Your Candidate ID number should appear in the upper right corner of each page. (Note that it is permissible to single-space, using Times New Roman 12 point font, on the Contextual Information Sheet, the Verification Form, or a Cover Sheet.)

Single-sided Pages

You may print on only one side of each page. If you submit pages with text or pictures on both sides of the page, each side of those pages will count as one page. Note that each side of a page counts as one page for student work as well.

Page Limits

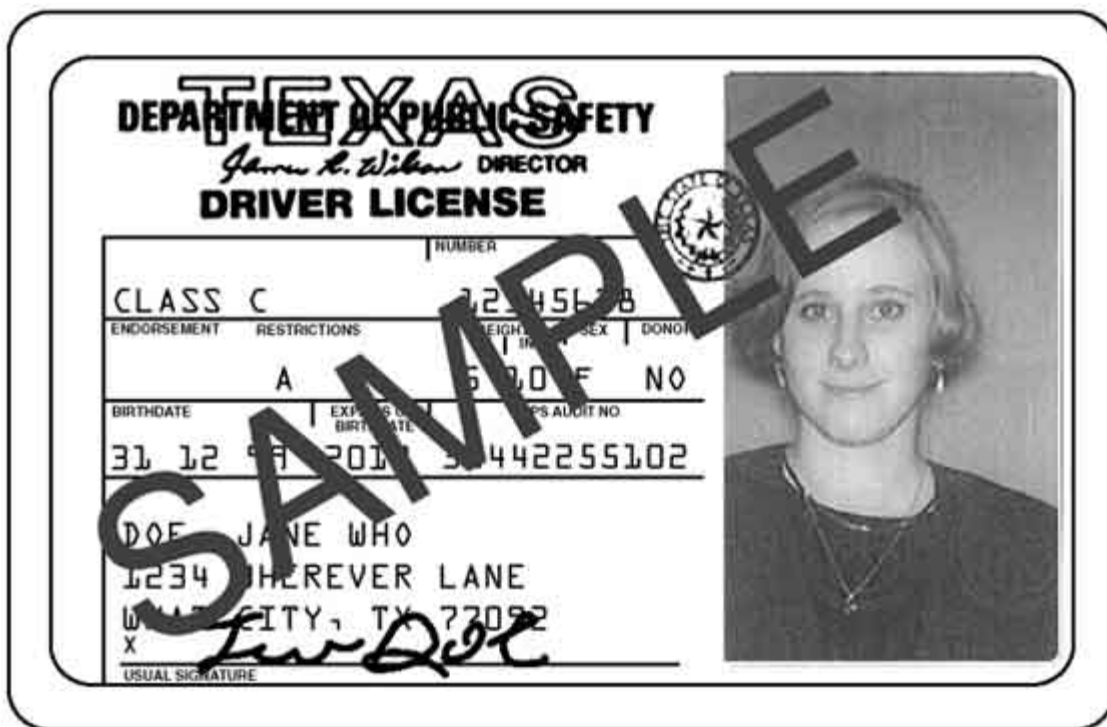
You may not exceed specified page limits. The instructions for each entry specify page maximums for the materials that you type. You may not exceed those maximums.

See *Forms & Specs* for more detail regarding your written materials submissions.

Photo Identification Specifications

Each candidate is required to include a current government-issued form of photo identification (e.g., driver's license, passport). You should photocopy your photo ID so that it is double its actual size. The enlargement, as shown in the sample below, can be done on most photocopiers by using 200% enlargement. You will need one photocopy for each video recording entry you submit. Include your Candidate ID number in the upper right corner of the photocopies you submit. Be sure that your photo ID is clearly visible. Photo IDs that are not government-issued, expired, or unable to be distinguished in the photocopy will cause your portfolio entry not to be scored.

SAMPLE OF GOVERNMENT-ISSUED PHOTO ID



Entry 1 **COVER SHEET**

PLACE
CANDIDATE I.D.
BARCODE LABEL HERE





Contextual INFORMATION

This form asks you to describe the broader context in which you teach. ***If you teach in only one school***, please complete this form once, make copies of it, and attach one copy to each of your entry responses, directly following each entry's cover sheet. ***If you teach in different schools that have different characteristics, and your entries feature students from more than one school***, please complete this form for each school. Make copies of each different completed form and attach to each entry the form that applies to it.

NOTE

You are asked in each entry to provide specific information about the students in the class you feature in the entry. This is in addition to the information requested here. Please print clearly or type. (If you type, you may use single-space the text using 12 point Times New Roman.) Limit your responses to the spaces provided below. For clarity, please avoid the use of acronyms.

1. Briefly identify:

- The **type of school/program** in which you teach, and the **grade/subject configuration** (single grade, departmentalized, interdisciplinary teams, etc.).

- The grade(s), age levels, courses, number of students taught daily, and the average number in each class:

Grades _____ Age Levels _____ Number of Students _____ Average Number of Students in Each Class _____

Courses _____

2. What information about your teaching context do you believe would be important for assessors to know to understand your portfolio entries? Be brief and specific.

NOTE

You might include details of any state or district mandates, information regarding the type of community, and access to current technology.





Written Commentary **COVER SHEET**





Instructional Activity #1 COVER SHEET

Type your responses to the following questions and attach them to this cover sheet. Use one cover sheet for each of the three activities. Each of your responses to the questions on the Instructional Activity Cover Sheets must:

- Your responses must be typed on 8.5" x 11" paper using 12 point Times New Roman font and double spacing. Your responses must fit on that one sheet. Place your typed page directly behind this cover sheet. (See the *Intro* for more information.)
- Have your Candidate ID number in the upper right corner. **Do not print your name.**
- Be legible. Be sure that your printer's ribbon or toner cartridge is in good condition.
- **Be no longer than 1 typed page.**

1. Describe the instructional activity. What did you do? What did the students do?
2. What is the purpose of this activity? What did you want your students to learn?
3. What instructional resources did you use for this activity (e.g., printed materials, community resources, laboratory equipment, or others)? How were they used?

Attach to this cover sheet:

- ☐ Your typed response to the above three questions (maximum 1 page per activity).
- ☐ Relevant **instructional materials** that help in understanding the activity (e.g., handouts, excerpts from teacher guides, instructions to students, overhead transparencies, and the like). *If the material being used is larger than 8.5" x 11", if it is software, or if it is three-dimensional, attach a description, drawing, or a photograph to this cover sheet. In addition, if overhead transparencies or writing on the chalkboard are important for assessors to see, attach a copy of the material.*
- ☐ Student Work Cover Sheets and student work samples from two students.





Instructional Activity #2

COVER SHEET

Type your responses to the following questions and attach them to this cover sheet. Use one cover sheet for each of the three activities. Each of your responses to the questions on the Instructional Activity Cover Sheets must:

- Your responses must be typed on 8.5" x 11" paper using 12 point Times New Roman font and double spacing. Your responses must fit on that one sheet. Place your typed page directly behind this cover sheet. (See the *Intro* for more information.)
- Have your Candidate ID number in the upper right corner. **Do not print your name.**
- Be legible. Be sure that your printer's ribbon or toner cartridge is in good condition.
- **Be no longer than 1 typed page.**

1. Describe the instructional activity. What did you do? What did the students do?
2. What is the purpose of this activity? What did you want your students to learn?
3. What instructional resources did you use for this activity (e.g., printed materials, community resources, laboratory equipment, or others)? How were they used?

Attach to this cover sheet:

- ☐ Your typed response to the above three questions (maximum **1 page** per activity).
- ☐ Relevant **instructional materials** that help in understanding the activity (e.g., handouts, excerpts from teacher guides, instructions to students, overhead transparencies, and the like). *If the material being used is larger than 8.5" x 11", if it is software, or if it is three-dimensional, attach a description, drawing, or a photograph to this cover sheet. In addition, if overhead transparencies or writing on the chalkboard are important for assessors to see, attach a copy of the material.*
- ☐ Student Work Cover Sheets and student work samples from two students.





Instructional Activity #3

COVER SHEET

Type your responses to the following questions and attach them to this cover sheet. Use one cover sheet for each of the three activities. Each of your responses to the questions on the Instructional Activity Cover Sheets must:

- Your responses must be typed on 8.5" x 11" paper using 12 point Times New Roman font and double spacing. Your responses must fit on that one sheet. Place your typed page directly behind this cover sheet. (See the *Intro* for more information.)
- Have your Candidate ID number in the upper right corner. **Do not print your name.**
- Be legible. Be sure that your printer's ribbon or toner cartridge is in good condition.
- **Be no longer than 1 typed page.**

1. Describe the instructional activity. What did you do? What did the students do?
2. What is the purpose of this activity? What did you want your students to learn?
3. What instructional resources did you use for this activity (e.g., printed materials, community resources, laboratory equipment, or others)? How were they used?

Attach to this cover sheet:

- ☐ Your typed response to the above three questions (maximum **1 page** per activity).
- ☐ Relevant **instructional materials** that help in understanding the activity (e.g., handouts, excerpts from teacher guides, instructions to students, overhead transparencies, and the like). *If the material being used is larger than 8.5" x 11", if it is software, or if it is three-dimensional, attach a description, drawing, or a photograph to this cover sheet. In addition, if overhead transparencies or writing on the chalkboard are important for assessors to see, attach a copy of the material.*
- ☐ Student Work Cover Sheets and student work samples from two students.





Student A

Instructional Activity #1 Student Work Sample

COVER SHEET

Attach to this cover sheet:



Work sample from a student generated in response to the activity cited above. Label the work sample with the student's first name, the Student Identifier (A or B), and the Activity Number.





Student B

Instructional Activity #1 Student Work Sample

COVER SHEET

Attach to this cover sheet:



Work sample from a student generated in response to the activity cited above. Label the work sample with the student's first name, the Student Identifier (A or B), and the Activity Number.





Student A

Instructional Activity #2 Student Work Sample

COVER SHEET

Attach to this cover sheet:



Work sample from a student generated in response to the activity cited above. Label the work sample with the student's first name, the Student Identifier (A or B), and the Activity Number.





Student B

Instructional Activity #2 Student Work Sample

COVER SHEET

Attach to this cover sheet:



Work sample from a student generated in response to the activity cited above. Label the work sample with the student's first name, the Student Identifier (A or B), and the Activity Number.





Student A

Instructional Activity #3 Student Work Sample

COVER SHEET

Attach to this cover sheet:



Work sample from a student generated in response to the activity cited above. Label the work sample with the student's first name, the Student Identifier (A or B), and the Activity Number.





Student B

Instructional Activity #3 Student Work Sample

COVER SHEET

Attach to this cover sheet:



Work sample from a student generated in response to the activity cited above. Label the work sample with the student's first name, the Student Identifier (A or B), and the Activity Number.





Culminating Assessment COVER SHEET



Entry 1 Assembly

FINAL INVENTORY

Materials must be checked off and assembled in the following sequence. Use *paperclips only*, as shown below.

<input type="checkbox"/> ENTRY 1 COVER SHEET	
<input type="checkbox"/> Contextual Information Sheet.....	
<input type="checkbox"/> WRITTEN COMMENTARY COVER SHEET	
<input type="checkbox"/> Written Commentary (13 pages maximum).....	
<input type="checkbox"/> INSTRUCTIONAL ACTIVITY #1 COVER SHEET	
<input type="checkbox"/> Response Sheet.....	
<input type="checkbox"/> Instructional Materials.....	
<input type="checkbox"/> STUDENT A WORK SAMPLE COVER SHEET	
<input type="checkbox"/> Student A Work Sample.....	
<input type="checkbox"/> STUDENT B WORK SAMPLE COVER SHEET	
<input type="checkbox"/> Student B Work Sample.....	
<input type="checkbox"/> INSTRUCTIONAL ACTIVITY #2 COVER SHEET	
<input type="checkbox"/> Response Sheet.....	
<input type="checkbox"/> Instructional Materials.....	
<input type="checkbox"/> STUDENT A WORK SAMPLE COVER SHEET	
<input type="checkbox"/> Student A Work Sample.....	
<input type="checkbox"/> STUDENT B WORK SAMPLE COVER SHEET	
<input type="checkbox"/> Student B Work Sample.....	
<input type="checkbox"/> INSTRUCTIONAL ACTIVITY #3 COVER SHEET	
<input type="checkbox"/> Response Sheet.....	
<input type="checkbox"/> Instructional Materials.....	
<input type="checkbox"/> STUDENT A WORK SAMPLE COVER SHEET	
<input type="checkbox"/> Student A Work Sample.....	
<input type="checkbox"/> STUDENT B WORK SAMPLE COVER SHEET	
<input type="checkbox"/> Student B Work Sample.....	
CULMINATING ASSESSMENT (2 pages maximum, excluding cover sheets)	
<input type="checkbox"/> CULMINATING ASSESSMENT COVER SHEET	
<input type="checkbox"/> Culminating Assessment.....	
<input type="checkbox"/> ENVELOPE WITH ENTRY 1 LABEL	

By my signature below, I affirm that all of the above checked components are included in the materials I am submitting to NBPTS, and that all materials have been selected from my own classes and students I teach.

Signature: _____ Date: _____





Entry 1

CANDIDATE RELEASE FORM

(To be completed by NBPTS candidates)

Re: Permission to Use Teacher Materials and Image in Video Recordings

As a participant in the certification assessment being conducted by the National Board for Professional Teaching Standards (NBPTS), I grant permission to NBPTS or any of its employees or authorized agents to assess video recordings of me and of my students as I teach a class. I understand and agree that NBPTS or its agents will use the video recording(s) that contains my performance or image in assessing my practice for the purposes of the certification assessment.

As part of this project, I may submit classroom plans, assignments, and comments. I hereby grant permission to NBPTS to use these teacher materials and understand that no student last names will appear on any materials that I submit. I understand that NBPTS, at its sole discretion, may use and distribute my video recording(s), my comments and my classroom materials for assessment, professional development and research purposes, and any other purpose NBPTS deems appropriate to further the mission of the organization, and that the video recording(s) and materials, and all copies thereof, shall constitute the sole property of NBPTS. I understand that NBPTS will request additional permission for any other purposes.

Candidate Signature: _____

Date: _____

Candidate Name: _____

Home Address: _____

School/Institution: _____



Student and Adult
Release Forms
COVER SHEET



DO NOT SUBMIT the *Student and Adult Release Forms* or this cover sheet with your entry. Retain the forms for your records.





STUDENT RELEASE FORM

(to be completed either by the parents/legal guardians of minor students involved in this project,
or by students who are more than 18 years of age that are involved in this project)

Dear Parent/Guardian:

I am a participant this school year in an assessment to certify experienced teachers as outstanding practitioners in teaching. My participation in this assessment, which is being conducted by the National Board for Professional Teaching Standards, is voluntary. The primary purposes of this assessment are to enhance student learning and encourage excellence in teaching.

This project requires that short video recordings of lessons taught in your child's class be submitted. Although the video recordings involve both the teacher and various students, the primary focus is on the teacher's instruction, not on the students in the class. In the course of recording, your child may appear on the video. Also, at times during the year, I may be asked to submit samples of student work as evidence of teaching practice, and that work may include some of your child's work.

No student's last name will appear on any materials that are submitted. NBPTS, at its sole discretion, may use and distribute my video recording(s), my comments and my classroom materials for assessment, professional development and research purposes, and any other purpose NBPTS deems appropriate to further the mission of the organization. The form below will be used to document your permission for these activities.

Sincerely, _____
(Candidate Signature)

Permission Slip

Student Name: _____

School/Teacher: _____

Your Address: _____

I am the parent/legal guardian of the child named above. I have received and read your letter regarding a teacher assessment being conducted by the National Board for Professional Teaching Standards (NBPTS), and agree to the following:

PARENT / GUARDIAN

☐ **I DO** give permission to you to include my child's image on video as he or she participates in a class conducted at _____
(Name of School)

by _____
(Teacher's Name)

and/or to reproduce materials that my child may produce as part of classroom activities. No last names will appear on any materials submitted by the teacher.

☐ **I DO NOT** give permission to video my child or to reproduce materials that my child may produce as part of classroom activities.

Signature of Parent or Guardian: _____ Date: _____

I am the student named above and am more than 18 years of age. I have read and understand the project description given above. I understand that my performance is not being evaluated by this project and that my last name will not appear on any materials that may be submitted.

STUDENT

☐ **I DO** give permission to you to include my image on video as I participate in this class and/or to reproduce materials that I may produce as part of classroom activities.

☐ **I DO NOT** give permission to video me or to reproduce materials that I may produce as part of classroom activities.

Signature of Student: _____

Date: _____ Date of Birth: ____ / ____ / ____
MM DD YY





FORMULARIO DE AUTORIZACIÓN

(Para ser completado por padres o guardianes legales de estudiantes menores que participen en este proyecto,
o por estudiantes mayores de 18 años que participen en este proyecto)

Estimados Padres/Guardianes:

Este año escolar soy uno de los participantes en una evaluación para certificar a maestros con experiencia como educadores sobresalientes. Mi participación en esta evaluación, llevado a cabo por el "National Board for Professional Teaching Standards (Comité de Normas Profesionales para la Enseñanza), es voluntaria. Los propósitos principales de esta evaluación son mejorar el aprendizaje de los alumnos y fomentar la excelencia en la enseñanza.

Este proyecto requiere que yo exhiba videos de las lecciones que doy en el grupo de su hijo(a). Aunque en los videos aparecen el maestro y sus estudiantes, la atención se centra en el maestro y su manera de dar clase, no en los estudiantes. Al grabar mi clase, su hijo(a) podría aparecer en el video. También, durante el año, se le puede requerir al maestro que exhiba muestras del trabajo de sus estudiantes como evidencia de su práctica docente. El trabajo de su hijo(a) podría ser incluido en esas muestras.

Los apellidos de los estudiantes no aparecerán en los materiales que se exhiban. El NBPTS, a su entera discreción, puede usar y distribuir mis videograbaciones, mis comentarios y mis materiales del salón de clase con propósitos de evaluación, desarrollo profesional e investigación, y para cualquier otro propósito que NBPTS considere apropiado para cumplir con la misión de la organización. El formulario siguiente será utilizado para documentar su permiso para estas actividades.

Atentamente, _____
Firma del (de la) maestro(a)

Autorización

Nombre del estudiante: _____

Escuela/Maestro(a): _____

Domicilio: _____

Soy el padre/madre/guardián legal del niño/niña mencionado/a arriba. He recibido y leído su carta acerca de una evaluación para maestros que está siendo conducida en nombre del National Board for Professional Teaching Standards (NBPTS), y estoy de acuerdo con lo siguiente: (Por favor marque abajo en el cuadro correspondiente)

☐ **SÍ**, autorizo que se incluya la imagen de mi hijo/hija en videograbaciones cuando participa en una clase conducida en _____
(Nombre de la escuela)

por _____
(Nombre del maestro/de la maestra)

y a que se reproduzcan materiales de trabajo que mi hijo/hija pueda producir como parte de las actividades de clase. No aparecerán apellidos en ninguno de los materiales presentados por el maestro/la maestra.

☐ **NO**, no autorizo que se incluya a mi hijo/hija en videograbaciones ni que se reproduzcan materiales que mi hijo/hija pueda producir como parte de las actividades de clase.

Firma del padre, madre o guardian: _____ Fecha: _____

Soy el estudiante arriba mencionado y tengo más de 18 años de edad. He leído y entendido la descripción del proyecto mencionado arriba. Entiendo que mi desempeño no será evaluado en este proyecto y que mi apellido no se mencionará en ninguno de los materiales que puedan ser presentados. (Por favor marque abajo en el cuadro correspondiente)

☐ **SÍ**, autorizo a que se incluya mi imagen en videograbaciones cuando participo en esta clase y a que se reproduzcan materiales de trabajo que pueda producir como parte de las actividades de clase.

☐ **NO**, no autorizo a que se me incluya en videograbaciones o a que se reproduzcan materiales que pueda producir como parte de de las actividades de clase.

Firma del estudiante: _____

Fecha: _____ Fecha de nacimiento: _____ / _____ / _____
Mes Dia Año



EL PADRE/MADRE/GUARDIÁN

EL ESTUDIANTE



ADULT RELEASE FORM

(to be completed by non-students involved in this project)

Dear Sir or Madam:

I am a participant this school year in an assessment to certify experienced teachers as outstanding practitioners in teaching. My participation in this assessment, which is being conducted by the National Board for Professional Teaching Standards, is voluntary. The primary purposes of this assessment are to enhance student learning and encourage excellence in teaching.

This project requires that short video recordings of lessons taught in the class be submitted. Although the video recordings involve both the teacher and various students, the primary focus is on the teacher's instruction, not on the students in the class. In the course of recording, your image may appear on the video.

No last names will appear on any materials that are submitted. The form below will be used to document your permission for these activities.

Sincerely, _____
(Candidate Signature)

Permission Slip

Name: _____

Address: _____

School/Teacher: _____

I am the person named above. I have received and read your letter regarding a teacher assessment being conducted by the National Board for Professional Teaching Standards (NBPTS), and agree to the following:

☐ **I DO** give permission to you to include my image on video as a participant in a class conducted
at _____
(Name of School)
by _____
(Teacher's Name)
as part of classroom activities. No last names will appear on any materials submitted by the teacher.

☐ **I DO NOT** give permission to video my image as part of classroom activities.

Signature: _____ Date: _____

PARTICIPANT



Entry 2 **COVER SHEET**

PLACE
CANDIDATE I.D.
BARCODE LABEL HERE





Contextual INFORMATION

This form asks you to describe the broader context in which you teach. ***If you teach in only one school***, please complete this form once, make copies of it, and attach one copy to each of your entry responses, directly following each entry's cover sheet. ***If you teach in different schools that have different characteristics, and your entries feature students from more than one school***, please complete this form for each school. Make copies of each different completed form and attach to each entry the form that applies to it.

NOTE

You are asked in each entry to provide specific information about the students in the class you feature in the entry. This is in addition to the information requested here. Please print clearly or type. (If you type, you may use single-space the text using 12 point Times New Roman.) Limit your responses to the spaces provided below. For clarity, please avoid the use of acronyms.

1. Briefly identify:

- The **type of school/program** in which you teach, and the **grade/subject configuration** (single grade, departmentalized, interdisciplinary teams, etc.).

- The grade(s), age levels, courses, number of students taught daily, and the average number in each class:

Grades _____ Age Levels _____ Number of Students _____ Average Number of Students in Each Class _____

Courses _____

2. What information about your teaching context do you believe would be important for assessors to know to understand your portfolio entries? Be brief and specific.

NOTE

You might include details of any state or district mandates, information regarding the type of community, and access to current technology.





Written Commentary **COVER SHEET**





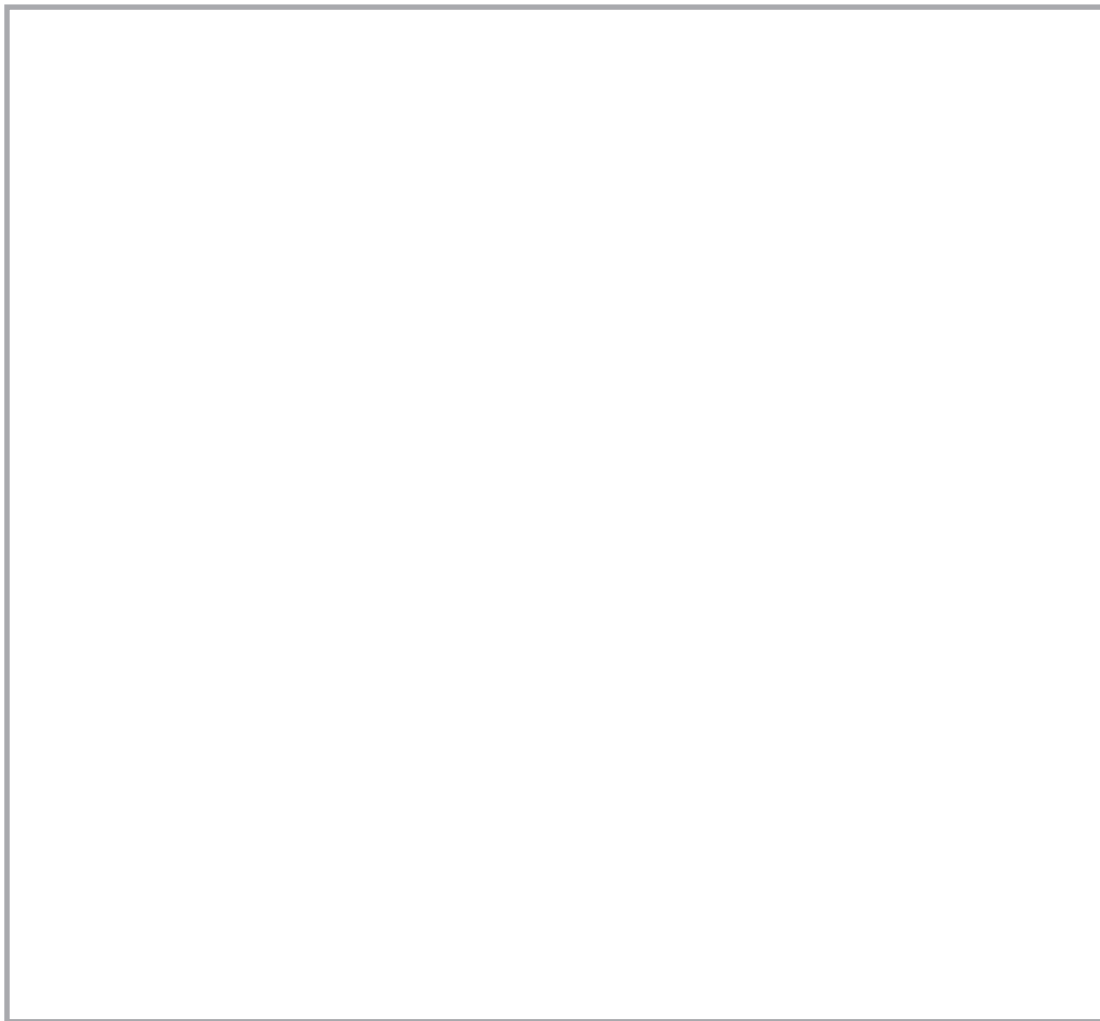
Entry 2

CLASSROOM LAYOUT FORM

(For Informational Purposes Only.)

Please make a sketch of the physical layout of the “classroom” (i.e., setting in which the instruction took place) as it appears in the video recording. This sketch will provide assessors with a context for the video since the camera cannot capture the whole instruction area at once.

It is helpful to assessors for you to identify where particular students are located in the room by using the same student identifiers that you refer to in your Written Commentary (e.g., “the girl in the green sweater”). The sketch will **not** be scored.



Entry 2 Assembly FINAL INVENTORY

Materials must be checked off and assembled in the following sequence.
Use *paperclips only*, as shown below.

<input type="checkbox"/>	ENTRY 2 COVER SHEET	
<input type="checkbox"/>	Contextual Information Sheet.....	
<input type="checkbox"/>	WRITTEN COMMENTARY COVER SHEET	
<input type="checkbox"/>	Written Commentary (13 pages maximum)	
<input type="checkbox"/>	Classroom Layout Form.....	
<input type="checkbox"/>	Photocopy of Government-Issued Photo ID.....	
<input type="checkbox"/>	Video (20 minutes maximum)	
<input type="checkbox"/>	ENVELOPE WITH ENTRY 2 LABEL	

By my signature below, I affirm that all of the above checked components are included in the materials I am submitting to NBPTS, and that all materials have been selected from my own classes and students I teach.

Signature: _____

Date: _____

! After assembling your entry and checking off the components on this form,
PLACE THIS SHEET ONLY IN THE FORMS ENVELOPE.





Entry 2

CANDIDATE RELEASE FORM

(To be completed by NBPTS candidates)

Re: Permission to Use Teacher Materials and Image in Video Recordings

As a participant in the certification assessment being conducted by the National Board for Professional Teaching Standards (NBPTS), I grant permission to NBPTS or any of its employees or authorized agents to assess video recordings of me and of my students as I teach a class. I understand and agree that NBPTS or its agents will use the video recording(s) that contains my performance or image in assessing my practice for the purposes of the certification assessment.

As part of this project, I may submit classroom plans, assignments, and comments. I hereby grant permission to NBPTS to use these teacher materials and understand that no student last names will appear on any materials that I submit. I understand that NBPTS, at its sole discretion, may use and distribute my video recording(s), my comments and my classroom materials for assessment, professional development and research purposes, and any other purpose NBPTS deems appropriate to further the mission of the organization, and that the video recording(s) and materials, and all copies thereof, shall constitute the sole property of NBPTS. I understand that NBPTS will request additional permission for any other purposes.

Candidate Signature: _____

Date: _____

Candidate Name: _____

Home Address: _____

School/Institution: _____



Entry 2

NOTES FOR

VIDEOCAMERA OPERATION

(To be given to the person assisting you by operating the videocamera.)

In order to assist you when you are filming the lesson, you should also refer to “Video Recording Overview” in *Get Started*.

The video recording you are making must:

- be taken from an angle that includes as many of the students’ faces as possible. The video should show as much of the class as possible, but it is acceptable to focus on a particular student while he or she is talking;
- show the teacher engaging students in scientific inquiry during three discrete segments of science inquiry;
- show the teacher interacting with students to begin the inquiry by identifying important questions, appropriate methods, and potential data sources;
- show the teacher interacting with students as they collect and/or evaluate data as part of the investigation;
- show how the teacher engages students in analyzing, interpreting, and synthesizing the results of the investigation; and
- have sound quality that enables assessors to understand all of what the teacher says and most of what the students say.

Stopping and restarting the camera or the sound during recording will be regarded as editing and will make the video **unscorable**. The video must contain no graphics (e.g., titles) or special effects (e.g., fade in/fade out). It must be on a new, blank, standard VHS videotape cartridge. **Do not** submit miniature or adapted formats, such as VHS-C, Super VHS, or HI-8. If you are planning to submit video evidence in digital format, refer to the instructions included in your Portfolio Kit for DVD specifications and submittal requirements.



Student and Adult
Release Forms
COVER SHEET



DO NOT SUBMIT the *Student and Adult Release Forms* or this cover sheet with your entry. Retain the forms for your records.





STUDENT RELEASE FORM

(to be completed either by the parents/legal guardians of minor students involved in this project,
or by students who are more than 18 years of age that are involved in this project)

Dear Parent/Guardian:

I am a participant this school year in an assessment to certify experienced teachers as outstanding practitioners in teaching. My participation in this assessment, which is being conducted by the National Board for Professional Teaching Standards, is voluntary. The primary purposes of this assessment are to enhance student learning and encourage excellence in teaching.

This project requires that short video recordings of lessons taught in your child's class be submitted. Although the video recordings involve both the teacher and various students, the primary focus is on the teacher's instruction, not on the students in the class. In the course of recording, your child may appear on the video. Also, at times during the year, I may be asked to submit samples of student work as evidence of teaching practice, and that work may include some of your child's work.

No student's last name will appear on any materials that are submitted. NBPTS, at its sole discretion, may use and distribute my video recording(s), my comments and my classroom materials for assessment, professional development and research purposes, and any other purpose NBPTS deems appropriate to further the mission of the organization. The form below will be used to document your permission for these activities.

Sincerely, _____
(Candidate Signature)

Permission Slip

Student Name: _____

School/Teacher: _____

Your Address: _____

I am the parent/legal guardian of the child named above. I have received and read your letter regarding a teacher assessment being conducted by the National Board for Professional Teaching Standards (NBPTS), and agree to the following:

PARENT / GUARDIAN

☐ **I DO** give permission to you to include my child's image on video as he or she participates in a class conducted at _____
(Name of School)

by _____
(Teacher's Name)

and/or to reproduce materials that my child may produce as part of classroom activities. No last names will appear on any materials submitted by the teacher.

☐ **I DO NOT** give permission to video my child or to reproduce materials that my child may produce as part of classroom activities.

Signature of Parent or Guardian: _____ Date: _____

I am the student named above and am more than 18 years of age. I have read and understand the project description given above. I understand that my performance is not being evaluated by this project and that my last name will not appear on any materials that may be submitted.

STUDENT

☐ **I DO** give permission to you to include my image on video as I participate in this class and/or to reproduce materials that I may produce as part of classroom activities.

☐ **I DO NOT** give permission to video me or to reproduce materials that I may produce as part of classroom activities.

Signature of Student: _____

Date: _____ Date of Birth: ____ / ____ / ____
MM DD YY





FORMULARIO DE AUTORIZACIÓN

(Para ser completado por padres o guardianes legales de estudiantes menores que participen en este proyecto,
o por estudiantes mayores de 18 años que participen en este proyecto)

Estimados Padres/Guardianes:

Este año escolar soy uno de los participantes en una evaluación para certificar a maestros con experiencia como educadores sobresalientes. Mi participación en esta evaluación, llevado a cabo por el "National Board for Professional Teaching Standards (Comité de Normas Profesionales para la Enseñanza), es voluntaria. Los propósitos principales de esta evaluación son mejorar el aprendizaje de los alumnos y fomentar la excelencia en la enseñanza.

Este proyecto requiere que yo exhiba videos de las lecciones que doy en el grupo de su hijo(a). Aunque en los videos aparecen el maestro y sus estudiantes, la atención se centra en el maestro y su manera de dar clase, no en los estudiantes. Al grabar mi clase, su hijo(a) podría aparecer en el video. También, durante el año, se le puede requerir al maestro que exhiba muestras del trabajo de sus estudiantes como evidencia de su práctica docente. El trabajo de su hijo(a) podría ser incluido en esas muestras.

Los apellidos de los estudiantes no aparecerán en los materiales que se exhiban. El NBPTS, a su entera discreción, puede usar y distribuir mis videograbaciones, mis comentarios y mis materiales del salón de clase con propósitos de evaluación, desarrollo profesional e investigación, y para cualquier otro propósito que NBPTS considere apropiado para cumplir con la misión de la organización. El formulario siguiente será utilizado para documentar su permiso para estas actividades.

Atentamente, _____
Firma del (de la) maestro(a)

Autorización

Nombre del estudiante: _____

Escuela/Maestro(a): _____

Domicilio: _____

Soy el padre/madre/guardián legal del niño/niña mencionado/a arriba. He recibido y leído su carta acerca de una evaluación para maestros que está siendo conducida en nombre del National Board for Professional Teaching Standards (NBPTS), y estoy de acuerdo con lo siguiente: (Por favor marque abajo en el cuadro correspondiente)

☐ **SÍ**, autorizo que se incluya la imagen de mi hijo/hija en videograbaciones cuando participa en una clase conducida en _____
(Nombre de la escuela)

por _____
(Nombre del maestro/de la maestra)

y a que se reproduzcan materiales de trabajo que mi hijo/hija pueda producir como parte de las actividades de clase. No aparecerán apellidos en ninguno de los materiales presentados por el maestro/la maestra.

☐ **NO**, no autorizo que se incluya a mi hijo/hija en videograbaciones ni que se reproduzcan materiales que mi hijo/hija pueda producir como parte de las actividades de clase.

Firma del padre, madre o guardian: _____ Fecha: _____

Soy el estudiante arriba mencionado y tengo más de 18 años de edad. He leído y entendido la descripción del proyecto mencionado arriba. Entiendo que mi desempeño no será evaluado en este proyecto y que mi apellido no se mencionará en ninguno de los materiales que puedan ser presentados. (Por favor marque abajo en el cuadro correspondiente)

☐ **SÍ**, autorizo a que se incluya mi imagen en videograbaciones cuando participo en esta clase y a que se reproduzcan materiales de trabajo que pueda producir como parte de las actividades de clase.

☐ **NO**, no autorizo a que se me incluya en videograbaciones o a que se reproduzcan materiales que pueda producir como parte de de las actividades de clase.

Firma del estudiante: _____

Fecha: _____ Fecha de nacimiento: _____ / _____ / _____
Mes Dia Año



EL PADRE/MADRE/GUARDIÁN

EL ESTUDIANTE



ADULT RELEASE FORM

(to be completed by non-students involved in this project)

Dear Sir or Madam:

I am a participant this school year in an assessment to certify experienced teachers as outstanding practitioners in teaching. My participation in this assessment, which is being conducted by the National Board for Professional Teaching Standards, is voluntary. The primary purposes of this assessment are to enhance student learning and encourage excellence in teaching.

This project requires that short video recordings of lessons taught in the class be submitted. Although the video recordings involve both the teacher and various students, the primary focus is on the teacher's instruction, not on the students in the class. In the course of recording, your image may appear on the video.

No last names will appear on any materials that are submitted. The form below will be used to document your permission for these activities.

Sincerely, _____
(Candidate Signature)

Permission Slip

Name: _____

Address: _____

School/Teacher: _____

I am the person named above. I have received and read your letter regarding a teacher assessment being conducted by the National Board for Professional Teaching Standards (NBPTS), and agree to the following:

☐ **I DO** give permission to you to include my image on video as a participant in a class conducted
at _____
(Name of School)
by _____
(Teacher's Name)
as part of classroom activities. No last names will appear on any materials submitted by the teacher.

☐ **I DO NOT** give permission to video my image as part of classroom activities.

Signature: _____ Date: _____

PARTICIPANT



Entry 3 **COVER SHEET**

PLACE
CANDIDATE I.D.
BARCODE LABEL HERE





Contextual INFORMATION

This form asks you to describe the broader context in which you teach. ***If you teach in only one school***, please complete this form once, make copies of it, and attach one copy to each of your entry responses, directly following each entry's cover sheet. ***If you teach in different schools that have different characteristics, and your entries feature students from more than one school***, please complete this form for each school. Make copies of each different completed form and attach to each entry the form that applies to it.

NOTE

You are asked in each entry to provide specific information about the students in the class you feature in the entry. This is in addition to the information requested here. Please print clearly or type. (If you type, you may use single-space the text using 12 point Times New Roman.) Limit your responses to the spaces provided below. For clarity, please avoid the use of acronyms.

1. Briefly identify:

- The **type of school/program** in which you teach, and the **grade/subject configuration** (single grade, departmentalized, interdisciplinary teams, etc.).

- The grade(s), age levels, courses, number of students taught daily, and the average number in each class:

Grades _____ Age Levels _____ Number of Students _____ Average Number of Students in Each Class _____

Courses _____

2. What information about your teaching context do you believe would be important for assessors to know to understand your portfolio entries? Be brief and specific.

NOTE

You might include details of any state or district mandates, information regarding the type of community, and access to current technology.





Written Commentary **COVER SHEET**





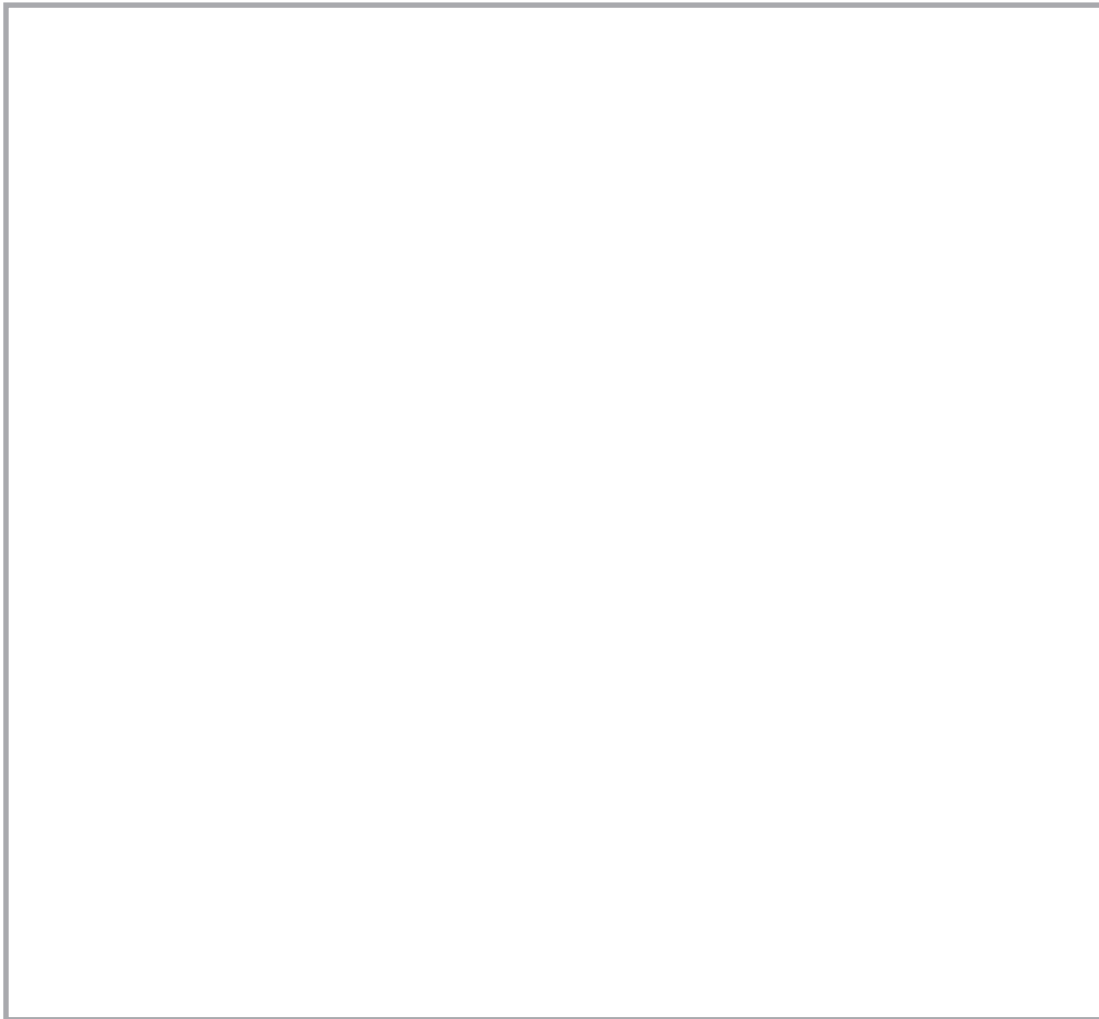
Entry 3

CLASSROOM LAYOUT FORM

(For Informational Purposes Only.)

Please make a sketch of the physical layout of the “classroom” (i.e., setting in which the instruction took place) as it appears in the video recording. This sketch will provide assessors with a context for the video since the camera cannot capture the whole instruction area at once.

It is helpful to assessors for you to identify where particular students are located in the room by using the same student identifiers that you refer to in your Written Commentary (e.g., “the girl in the green sweater”). The sketch will **not** be scored.



Entry 3 Assembly FINAL INVENTORY

Materials must be checked off and assembled in the following sequence.
Use *paperclips only*, as shown below.

<input type="checkbox"/>	ENTRY 3 – COVER SHEET	
<input type="checkbox"/>	Contextual Information Sheet.....	
<input type="checkbox"/>	WRITTEN COMMENTARY – COVER SHEET	
<input type="checkbox"/>	Written Commentary (13 pages maximum)	
<input type="checkbox"/>	Classroom Layout Form	
<input type="checkbox"/>	Photocopy of Government-Issued Photo ID.....	
<input type="checkbox"/>	Video (20 minutes maximum)	
<input type="checkbox"/>	ENVELOPE WITH ENTRY 3 LABEL	

By my signature below, I affirm that all of the above checked components are included in the materials I am submitting to NBPTS, and that all materials have been selected from my own classes and students I teach.

Signature: _____

Date: _____

! After assembling your entry and checking off the components on this form,
PLACE THIS SHEET ONLY IN THE FORMS ENVELOPE.





Entry 3

CANDIDATE RELEASE FORM

(To be completed by NBPTS candidates)

Re: Permission to Use Teacher Materials and Image in Video Recordings

As a participant in the certification assessment being conducted by the National Board for Professional Teaching Standards (NBPTS), I grant permission to NBPTS or any of its employees or authorized agents to assess video recordings of me and of my students as I teach a class. I understand and agree that NBPTS or its agents will use the video recording(s) that contains my performance or image in assessing my practice for the purposes of the certification assessment.

As part of this project, I may submit classroom plans, assignments, and comments. I hereby grant permission to NBPTS to use these teacher materials and understand that no student last names will appear on any materials that I submit. I understand that NBPTS, at its sole discretion, may use and distribute my video recording(s), my comments and my classroom materials for assessment, professional development and research purposes, and any other purpose NBPTS deems appropriate to further the mission of the organization, and that the video recording(s) and materials, and all copies thereof, shall constitute the sole property of NBPTS. I understand that NBPTS will request additional permission for any other purposes.

Candidate Signature: _____

Date: _____

Candidate Name: _____

Home Address: _____

School/Institution: _____



Entry 3

NOTES FOR VIDEOCAMERA OPERATION

(To be given to the person assisting you by operating the videocamera.)

In order to assist you when you are filming the lesson, you should also refer to “Video Recording Overview” in *Get Started*.

The video recording you are making must:

- show the teacher interacting and discussing with students as he or she explores a scientific theory, concept, principle, issue, or methodological approach;
- show substantive scientific discourse between the teacher and the students, and among students;
- show how the teacher develops students’ ability to reason and think about important science ideas;
- be taken from an angle that includes as many of the students’ faces as possible. The video should show as much of the class as possible, but it is acceptable to focus on a particular student while he or she is talking; and
- have sound quality that enables assessors to understand all of what the teacher says and most of what the students say.

Stopping and restarting the camera or the sound during recording will be regarded as editing and will make the video **unscorable**. The video must contain no graphics (e.g., titles) or special effects (e.g., fade in/fade out). It must be on a new, blank, standard VHS videotape cartridge. **Do not** submit miniature or adapted formats, such as VHS-C, Super VHS, or HI-8. If you are planning to submit video evidence in digital format, refer to the instructions included in your Portfolio Kit for DVD specifications and submittal requirements.



Student and Adult
Release Forms
COVER SHEET



DO NOT SUBMIT the *Student and Adult Release Forms* or this cover sheet with your entry. Retain the forms for your records.





STUDENT RELEASE FORM

(to be completed either by the parents/legal guardians of minor students involved in this project,
or by students who are more than 18 years of age that are involved in this project)

Dear Parent/Guardian:

I am a participant this school year in an assessment to certify experienced teachers as outstanding practitioners in teaching. My participation in this assessment, which is being conducted by the National Board for Professional Teaching Standards, is voluntary. The primary purposes of this assessment are to enhance student learning and encourage excellence in teaching.

This project requires that short video recordings of lessons taught in your child's class be submitted. Although the video recordings involve both the teacher and various students, the primary focus is on the teacher's instruction, not on the students in the class. In the course of recording, your child may appear on the video. Also, at times during the year, I may be asked to submit samples of student work as evidence of teaching practice, and that work may include some of your child's work.

No student's last name will appear on any materials that are submitted. NBPTS, at its sole discretion, may use and distribute my video recording(s), my comments and my classroom materials for assessment, professional development and research purposes, and any other purpose NBPTS deems appropriate to further the mission of the organization. The form below will be used to document your permission for these activities.

Sincerely, _____
(Candidate Signature)

Permission Slip

Student Name: _____

School/Teacher: _____

Your Address: _____

I am the parent/legal guardian of the child named above. I have received and read your letter regarding a teacher assessment being conducted by the National Board for Professional Teaching Standards (NBPTS), and agree to the following:

☐ **I DO** give permission to you to include my child's image on video as he or she participates in a class conducted at _____
(Name of School)
by _____
(Teacher's Name)
and/or to reproduce materials that my child may produce as part of classroom activities. No last names will appear on any materials submitted by the teacher.

☐ **I DO NOT** give permission to video my child or to reproduce materials that my child may produce as part of classroom activities.

Signature of Parent or Guardian: _____ Date: _____

I am the student named above and am more than 18 years of age. I have read and understand the project description given above. I understand that my performance is not being evaluated by this project and that my last name will not appear on any materials that may be submitted.

☐ **I DO** give permission to you to include my image on video as I participate in this class and/or to reproduce materials that I may produce as part of classroom activities.

☐ **I DO NOT** give permission to video me or to reproduce materials that I may produce as part of classroom activities.

Signature of Student: _____

Date: _____ Date of Birth: ____ / ____ / ____
MM DD YY



PARENT / GUARDIAN

STUDENT



FORMULARIO DE AUTORIZACIÓN

(Para ser completado por padres o guardianes legales de estudiantes menores que participen en este proyecto,
o por estudiantes mayores de 18 años que participen en este proyecto)

Estimados Padres/Guardianes:

Este año escolar soy uno de los participantes en una evaluación para certificar a maestros con experiencia como educadores sobresalientes. Mi participación en esta evaluación, llevado a cabo por el "National Board for Professional Teaching Standards (Comité de Normas Profesionales para la Enseñanza), es voluntaria. Los propósitos principales de esta evaluación son mejorar el aprendizaje de los alumnos y fomentar la excelencia en la enseñanza.

Este proyecto requiere que yo exhiba videos de las lecciones que doy en el grupo de su hijo(a). Aunque en los videos aparecen el maestro y sus estudiantes, la atención se centra en el maestro y su manera de dar clase, no en los estudiantes. Al grabar mi clase, su hijo(a) podría aparecer en el video. También, durante el año, se le puede requerir al maestro que exhiba muestras del trabajo de sus estudiantes como evidencia de su práctica docente. El trabajo de su hijo(a) podría ser incluido en esas muestras.

Los apellidos de los estudiantes no aparecerán en los materiales que se exhiban. El NBPTS, a su entera discreción, puede usar y distribuir mis videograbaciones, mis comentarios y mis materiales del salón de clase con propósitos de evaluación, desarrollo profesional e investigación, y para cualquier otro propósito que NBPTS considere apropiado para cumplir con la misión de la organización. El formulario siguiente será utilizado para documentar su permiso para estas actividades.

Atentamente, _____
Firma del (de la) maestro(a)

Autorización

Nombre del estudiante: _____

Escuela/Maestro(a): _____

Domicilio: _____

Soy el padre/madre/guardián legal del niño/niña mencionado/a arriba. He recibido y leído su carta acerca de una evaluación para maestros que está siendo conducida en nombre del National Board for Professional Teaching Standards (NBPTS), y estoy de acuerdo con lo siguiente: (Por favor marque abajo en el cuadro correspondiente)

☐ **SÍ**, autorizo que se incluya la imagen de mi hijo/hija en videograbaciones cuando participa en una clase conducida en _____
(Nombre de la escuela)

por _____
(Nombre del maestro/de la maestra)

y a que se reproduzcan materiales de trabajo que mi hijo/hija pueda producir como parte de las actividades de clase. No aparecerán apellidos en ninguno de los materiales presentados por el maestro/la maestra.

☐ **NO**, no autorizo que se incluya a mi hijo/hija en videograbaciones ni que se reproduzcan materiales que mi hijo/hija pueda producir como parte de las actividades de clase.

Firma del padre, madre o guardian: _____ Fecha: _____

Soy el estudiante arriba mencionado y tengo más de 18 años de edad. He leído y entendido la descripción del proyecto mencionado arriba. Entiendo que mi desempeño no será evaluado en este proyecto y que mi apellido no se mencionará en ninguno de los materiales que puedan ser presentados. (Por favor marque abajo en el cuadro correspondiente)

☐ **SÍ**, autorizo a que se incluya mi imagen en videograbaciones cuando participo en esta clase y a que se reproduzcan materiales de trabajo que pueda producir como parte de las actividades de clase.

☐ **NO**, no autorizo a que se me incluya en videograbaciones o a que se reproduzcan materiales que pueda producir como parte de de las actividades de clase.

Firma del estudiante: _____

Fecha: _____ Fecha de nacimiento: _____ / _____ / _____
Mes Dia Año



EL PADRE/MADRE/GUARDIÁN

EL ESTUDIANTE



ADULT RELEASE FORM

(to be completed by non-students involved in this project)

Dear Sir or Madam:

I am a participant this school year in an assessment to certify experienced teachers as outstanding practitioners in teaching. My participation in this assessment, which is being conducted by the National Board for Professional Teaching Standards, is voluntary. The primary purposes of this assessment are to enhance student learning and encourage excellence in teaching.

This project requires that short video recordings of lessons taught in the class be submitted. Although the video recordings involve both the teacher and various students, the primary focus is on the teacher's instruction, not on the students in the class. In the course of recording, your image may appear on the video.

No last names will appear on any materials that are submitted. The form below will be used to document your permission for these activities.

Sincerely, _____
(Candidate Signature)

Permission Slip

Name: _____

Address: _____

School/Teacher: _____

I am the person named above. I have received and read your letter regarding a teacher assessment being conducted by the National Board for Professional Teaching Standards (NBPTS), and agree to the following:

☐ **I DO** give permission to you to include my image on video as a participant in a class conducted
at _____
(Name of School)
by _____
(Teacher's Name)
as part of classroom activities. No last names will appear on any materials submitted by the teacher.

☐ **I DO NOT** give permission to video my image as part of classroom activities.

Signature: _____ Date: _____

PARTICIPANT



Entry 4 **COVER SHEET**

PLACE
CANDIDATE I.D.
BARCODE LABEL HERE





Contextual INFORMATION

This form asks you to describe the broader context in which you teach. ***If you teach in only one school***, please complete this form once, make copies of it, and attach one copy to each of your entry responses, directly following each entry's cover sheet. ***If you teach in different schools that have different characteristics, and your entries feature students from more than one school***, please complete this form for each school. Make copies of each different completed form and attach to each entry the form that applies to it.

NOTE

You are asked in each entry to provide specific information about the students in the class you feature in the entry. This is in addition to the information requested here. Please print clearly or type. (If you type, you may use single-space the text using 12 point Times New Roman.) Limit your responses to the spaces provided below. For clarity, please avoid the use of acronyms.

1. Briefly identify:

- The **type of school/program** in which you teach, and the **grade/subject configuration** (single grade, departmentalized, interdisciplinary teams, etc.).

- The grade(s), age levels, courses, number of students taught daily, and the average number in each class:

Grades _____ Age Levels _____ Number of Students _____ Average Number of Students in Each Class _____

Courses _____

2. What information about your teaching context do you believe would be important for assessors to know to understand your portfolio entries? Be brief and specific.

NOTE

You might include details of any state or district mandates, information regarding the type of community, and access to current technology.





Accomplishment COVER SHEET

Accomplishment # _____

Area of accomplishment

The checklist below is intended **only** to help you confirm for yourself that you have submitted accomplishments in all the categories. Assessors are trained to consider the substance of your accomplishments, not whether you have correctly labeled the category.

This accomplishment reflects (check all that apply):

- ☐ Your work with your students' families, showing ongoing, interactive, two-way communication (*current year*)
- ☐ Your work as a learner (*within the last five years*)
- ☐ Your work as a leader and collaborator at the local, state, and/or national level (*within the last five years*)

Description and Analysis

Attach Description and Analysis for this accomplishment.

Documentation

Once you have completed the Description and Analysis for the accomplishment, attach the documentation for this accomplishment to this cover sheet, behind the Description and Analysis.

Print this form as needed for each accomplishment that you choose to submit.





Reflective Summary **COVER SHEET**

Attach to this cover sheet:



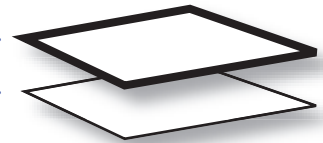
Your Reflective Summary.



Entry 4 Assembly FINAL INVENTORY

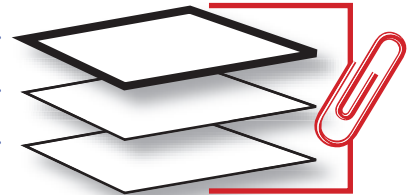
Materials must be checked off and assembled in the following sequence.
Use *paperclips only*, as shown below.

- ☐ **ENTRY 4 COVER SHEET**.....
- ☐ Contextual Information Sheet.....



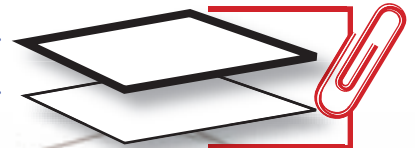
ACCOMPLISHMENTS (8 maximum)

- ☐ **ACCOMPLISHMENTS COVER SHEET**.....
- ☐ Description and Analysis (10 pages maximum, excluding cover sheets).....
- ☐ Documentation (16 pages maximum, excluding cover sheets)
- ☐ Artifacts
- ☐ Communication Log
- ☐ Verification Forms



REFLECTIVE SUMMARY (2 pages maximum, excluding cover sheets)

- ☐ **REFLECTIVE SUMMARY COVER SHEET**.....
- ☐ Reflective Summary.....
- ☐ **ENVELOPE WITH ENTRY 4 LABEL**.....



By my signature below, I affirm that all of the above checked components are included in the materials I am submitting to NBPTS, and that all materials have been selected from my own classes and students I teach.

Signature: _____

Date: _____

! After assembling your entry and checking off the components on this form,
PLACE THIS SHEET ONLY IN THE FORMS ENVELOPE.





Entry 4

CANDIDATE RELEASE FORM

(To be completed by NBPTS candidates)

Re: Permission to Use Teacher Materials and Image in Video Recordings

As a participant in the certification assessment being conducted by the National Board for Professional Teaching Standards (NBPTS), I grant permission to NBPTS or any of its employees or authorized agents to assess video recordings of me and of my students as I teach a class. I understand and agree that NBPTS or its agents will use the video recording(s) that contains my performance or image in assessing my practice for the purposes of the certification assessment.

As part of this project, I may submit classroom plans, assignments, and comments. I hereby grant permission to NBPTS to use these teacher materials and understand that no student last names will appear on any materials that I submit. I understand that NBPTS, at its sole discretion, may use and distribute my video recording(s), my comments and my classroom materials for assessment, professional development and research purposes, and any other purpose NBPTS deems appropriate to further the mission of the organization, and that the video recording(s) and materials, and all copies thereof, shall constitute the sole property of NBPTS. I understand that NBPTS will request additional permission for any other purposes.

Candidate Signature: _____

Date: _____

Candidate Name: _____

Home Address: _____

School/Institution: _____





your Portfolio

The teacher whose name appears on the attached verification form is a participant in the assessment for certification by the National Board for Professional Teaching Standards. The teacher has been asked to describe his or her accomplishments regarding the Standards for Family and Community Partnerships, Professional Partnerships, and Reflective Practice and to provide documentation of these accomplishments.

The teacher has identified you as someone personally knowledgeable about his or her accomplishments. We would appreciate your help in verifying the accuracy of the candidate's description of the accomplishments being reported to the National Board. Please read the verification form, which the teacher has prepared. **Return the form directly to the candidate.** We may need to obtain additional information about these activities from you at a later time. Please call us at 1-800-22TEACH if you have any questions.

Thank you for your assistance in this important effort.



VERIFICATION FORM

To be completed by the candidate:

Candidate Name: _____

Below, briefly describe the accomplishment(s) being verified by the signer of the form. Explain **what** the accomplishment is, **why** it is significant, and **how** it has impacted student learning.

CANDIDATE

To be completed by the verifier after the candidate has completed the top section:

Is the candidate's description of his or her activities accurate?

☐

Yes

☐

No

☐

Don't Know

How do you know of these activities?

VERIFIER

Signature: _____ Date: _____

Name (please print): _____

Title or Position: _____

Tel. Number: () _____

Address: _____

Please return this completed form directly to the candidate.



Forms **COVER SHEET**

PLACE
CANDIDATE I.D.
BARCODE LABEL HERE



Forms Assembly FINAL INVENTORY

Materials must be checked off and assembled in the following sequence.
Use *paperclips only*, as shown below.

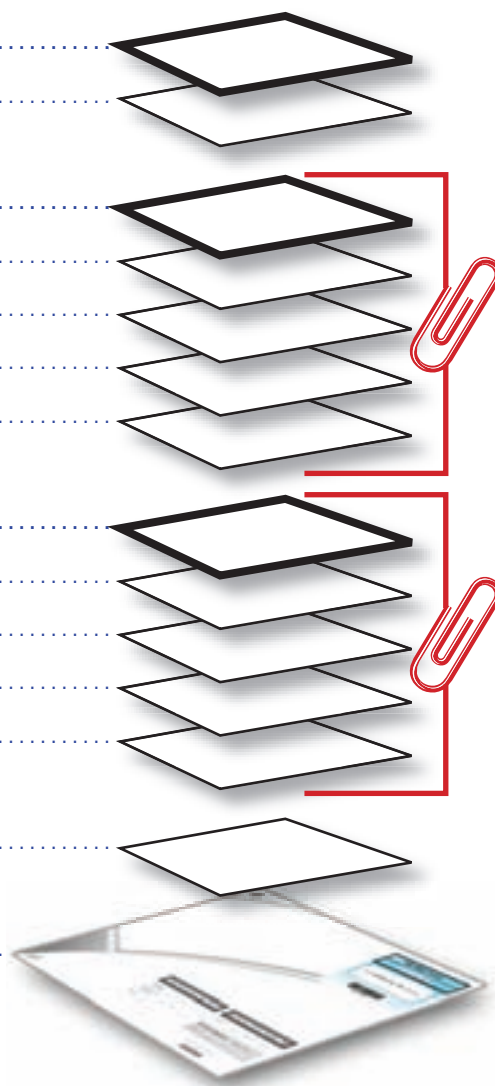
- ☐ **FORMS COVER SHEET**
- ☐ Forms Assembly Final Inventory Form (*this sheet*)

- ☐ **CANDIDATE RELEASE FORMS COVER SHEET**
- ☐ Entry 1 Candidate Release Form
- ☐ Entry 2 Candidate Release Form
- ☐ Entry 3 Candidate Release Form
- ☐ Entry 4 Candidate Release Form

- ☐ **FINAL INVENTORY FORMS COVER SHEET**
- ☐ Entry 1 Assembly Final Inventory Form
- ☐ Entry 2 Assembly Final Inventory Form
- ☐ Entry 3 Assembly Final Inventory Form
- ☐ Entry 4 Assembly Final Inventory Form

- ☐ Attestation Form

- ☐ Envelope with **Forms label**



By my signature below, I affirm that all of the above checked components are included in the materials I am submitting to NBPTS, and that all materials have been selected from my own classes and students I teach.

Signature: _____

Date: _____

! After assembling your entry and checking off the components on this form,
PLACE THIS SHEET ONLY IN THE FORMS ENVELOPE.





Candidate Release Forms **COVER SHEET**





Final Inventory Forms **COVER SHEET**





ATTESTATION FORM

You must obtain **signed permission forms** from the parents/legal guardians of all students and from any adults who appear in your video recordings, or who are shown in any photographs with your response. You also must obtain signed permission forms from the parents/guardians of students whose work is included as materials in any of your submissions to NBPTS. **Keep these permission forms on file.** Your signature below verifies that you have followed all of the necessary procedures.

Submit this form with an **original signature** in the Forms envelope provided. If you fail to do so, your portfolio will not be scored.

I hereby affirm that I have followed the privacy conventions and permission requirements of my program and/or school district. I certify that I have secured and am holding on file signed copies of all necessary permission forms from all responsible individuals.

Your Full Name: _____
(Please type or print)

Your Signature: _____

Date: _____



Student Release Form Translations

The Student Release Form has been translated into 19 of the languages most commonly used in the United States. If a particular translation has not been provided in the list below, the candidate should work with the student to translate the release form language orally to parents or guardians.

The translated Student Release Forms are in Adobe® Acrobat® PDF format. To read these documents, you need to install Acrobat® Reader software on your computer. You can download the free software by following the instructions provided by Adobe Systems. A link to Adobe's Web site is provided below.

- Student Release Form--Arabic
- Student Release Form--Armenian
- Student Release Form--Chinese
- Student Release Form--Creole
- Student Release Form--Farsi
- Student Release Form--French
- Student Release Form--Gujarati
- Student Release Form--Hindi
- Student Release Form--Japanese
- Student Release Form--Khmer/Cambodian
- Student Release Form--Korean
- Student Release Form--Laotian
- Student Release Form--Polish
- Student Release Form--Portuguese
- Student Release Form--Russian
- Student Release Form--Spanish
- Student Release Form--Tagalog
- Student Release Form--Urdu
- Student Release Form--Vietnamese

استمارة إذن الطالب بنشر معلوماته

(يعبئها إما الوالدان / أولياء الأمور القانونيون للطلاب الصغار المشاركين في هذا المشروع، وإما الطلاب المشاركون الذين تتجاوز أعمارهم ١٨ سنة)

الوالد / الوالدة / ولي الأمر المحترم :

إنني مشارك، هذه السنة المدرسية، في دراسة تقييمية تهدف إلى شهادة أن المدرسين ذوي الخبرة مهنيون بارزون في مهنة التدريس، وإن مشاركتي في هذه الدراسة، التي تقوم بإجرائها الهيئة الوطنية لمعايير التدريس المهني، مشاركة تطوعية، والغرض الرئيسي من الدراسة هو تحسين مستوى التعلم لدى الطلاب وتشجيع التفوق في مجال التدريس.

ويحتاج هذا المشروع إلى شريط فيديو قصير الوقت يحتوي على الدروس التي تم تدريسها في فصل طفلك، ومع أن ذلك الشريط سوف يشمل كلا من مدرس وطلاب عديدين، إلا أن إرشادات المدرس هي التي ستكون محل التركيز الرئيسي ولا الطلاب الحاضرون في الفصل، وخلال عملية التسجيل قد يظهر طفلك في الشريط، وأيضاً قد يطلب مني خلال السنة تقديم عينات من عمل الطلاب كشهادة على عملية التدريس، وقد تشمل تلك العينات بعض أعمال طفلك أيضاً.

وسوف لا يظهر الاسم الأخير لأي طالب في المعلومات التي سيتم تقديمها، وقد تستخدم الهيئة الوطنية لمعايير التدريس المهني أو توزع، كما تريد، أشرطتي وتعليقاتي والمواد ذات العلاقة بالفصل لإجراء التقييم والتطوير المهني والأبحاث ولأي غرض آخر تراه الهيئة الوطنية لمعايير التدريس المهني مناسباً لتطوير مهمتها، وسيتم استخدام الاستمارة التالية لتوثيق إذنك لهذه الأنشطة.

المخلص

(توقيع المرشح)

بطاقة الإذن

اسم الطالب / الطالبة: _____ المدرسة / المدرس: _____
عنوانك: _____

إني والد / والدة / ولي أمور قانوني للطفل المذكور اسمه أعلاه، وقد تلقيت وقرأت خطابك بخصوص دراسة تقييم مدرسين تجربتها الهيئة الوطنية لمعايير التدريس المهني (ان بي في اس)، وأتفق على ما يلي:
(يرجى التأشير على الخانة المناسبة أدناه)

☐ **اسمح** لك بتسجيل صورة طفلي / طفلاتي في شريط الفيديو عندما يحضر / تحضر درساً بمدرسة _____
(اسم المدرسة)
يلقيه _____ و / أو بعرض المواد والمعلومات التي قد ينتجها طفلي ضمن أنشطة غرفة الصف،
(اسم المدرس)
ولا يظهر الاسم الأخير في أي معلومات يقدمها المدرس.

☐ **لا اسمح** لك بتسجيل طفلي في شريط الفيديو أو عرض المواد والمعلومات التي قد ينتجها طفلي ضمن أنشطة غرفة الصف.

توقيع الوالد / الوالدة / ولي الأمر: _____ تاريخ: _____

إنني الطالب المذكور اسمه أعلاه ويجاوز عمري ١٨ سنة، وقد قرأت وفهمت البيان بالمشروع المذكور أعلاه، وأفهم أن هذا المشروع لا يهدف إلى تقييم أدائي وأنه سوف لا يذكر اسمي الأخير في أي معلومات قد يتم تسليمها.

☐ **اسمح** لك بإدخال صورتي في شريط الفيديو عندما أحضر الفصل و / أو بعرض المواد والمعلومات التي قد أنتجها أنا ضمن أنشطة غرفة الصف.

☐ **لا اسمح** لك بإدخال أنا في شريط الفيديو أو بعرض المواد والمعلومات التي قد أنتجها ضمن أنشطة غرفة الصف.

توقيع الطالب: _____ تاريخ: _____

تاريخ الميلاد: _____ / _____ / _____
شهر يوم سنة

ՈՒՍԱՆՈՂԻ ԱՐՁԱԿՄԱՆ ՁԵՎ

(Պետք է լրացվի կա՛մ այս ծրագրում ընդգրկված անչափահաս ուսանողի ծնողների/օրինական խնամակալների, կա՛մ այս ծրագրում ընդգրկված 18 տարեկանից մեծ ուսանողների կողմից)

Հարգելի Ծնող/Խնամակալ,

Ես այս կրթական տարում մասնակցում եմ փորձառու դասատուները որպես բացառիկ ուսուցողներ արժևորելու մի ծրագրի: Մասնագիտական Ուսուցման Չափանիշների Ազգային Վարչության կողմից անցկացվող այս արժևորմանը իմ մասնակցությունը կամավոր է: Այս արժևորման գլխավոր նպատակներն են զարկ տալ ուսանողների սովորելուն և քաջալերել գերազանցությունը ուսուցման մարզում:

Այս ծրագիրը պահանջում է, որ ձեր երեխայի դասարանում սովորեցված դասերի կարճ տեսագրումներ ներկայացվեն: Ձևայած տեսերիզները ընդգրկում են և՛ դասատուին և՛ զանազան ուսանողների, դասատուի դասավանդությունն է լինելու ուշադրության առարկա և ոչ թե դասարանի ուսանողները: Տեսագրության ընթացքում, հնարավոր է, որ ձեր երեխան երևա տեսերիզում: Նույնպես, տարվա ընթացքում որոշ ժամանակներում, ինձանից կպահանջվի ներկայացնել ուսանողական աշխատանքների նմուշներ՝ որպես ապացույց ուսուցողության, և այդ աշխատանքները կարող են ընդգրկել ձեր երեխայի աշխատանքներից մի քանիսը:

Ներկայացվող ոչ մի նյութում ուսանողի ազգանունը չի երևա: Մասնագիտական Ուսուցման Չափանիշների Ազգային Վարչությունը իր հիշողությամբ կարող է օգտագործել և տարածել իմ տեսերիզ(ներ)ը, իմ նկատումները և դասարանային նյութերը՝ արժևորման, մասնագիտական զարգացման և հետազոտական նպատակներով, ինչպես նաև որևէ այլ նպատակով, որը Մասնագիտական Ուսուցման Չափանիշների Ազգային Վարչությունը հարմար նկատի՝ կազմակերպության նպատակը չորացնելու համար: Ներքևի ձևը կօգտագործվի փաստագրելու ձեր արտոնությունը այս միջոցառումների համար:

Անկեղծորեն, _____
(Թեկնածուի ստորագրություն)

ԱՐՏՈՆՈՒԹՅԱՆ ԿՏՐՈՆ

Ուսանողի Անուն՝ _____ Դպրոց/Դասատու՝ _____

Ձեր հասցեն՝ _____

Ես վերևը նշված երեխայի ծնողը/օրինական խնամակալն եմ: Ես ստացել և կարդացել եմ ձեր նամակը՝ Մասնագիտական Ուսուցման Չափանիշների Ազգային Վարչության կողմից անցկացվող դասատուների արժևորման վերաբերյալ, և համաձայն եմ հետևյալին՝

(Խնդրում եմք նշանակել ներքևի համապատասխան քառակուսում):

☐ **ԵՍ ՁԵԶ** տալիս եմ արտոնություն, որ իմ երեխայի նկարն ընդգրկեք տեսերիզում որպես մասնակից այնպիսի դասի, որը անց է կացվում _____ ում _____
(Դպրոցի անուն) (դասատուի անուն) ի կողմից և/կամ

վերարտադրելու նյութեր, որ իմ երեխան կարող է արտադրել որպես մաս դասարանային գործունեության: Դասատուի կողմից ներկայացվող ոչ մի նյութում ոչ մի ազգանուն չի երևա:

☐ **ԵՍ ՉԵՄ** տալիս իմ արտոնությունը իմ երեխային տեսագրելու կամ վերարտադրելու նյութեր, որ իմ երեխան կարող է արտադրել որպես մաս դասարանային գործունեությունների:

Ծնողի կամ Խնամակալի ստորագրություն՝ _____ Թվական՝ _____
Ես վերևը նշված ուսանողն եմ և իմ տարիքը 18-ից վեր է: Ես կարդացել և հասկանում եմ վերևը նշված ծրագրի նկարագրությունը: Ես հասկանում եմ, որ իմ ելույթը չի արժևորվում այս ծրագրով և որ իմ ազգանունը չի երևա ներկայցվելիք որևէ նյութի վրա:

☐ **ԵՍ ՁԵԶ** տալիս եմ արտոնություն, որ իմ նկարն ընդգրկեք տեսերիզում որպես մասնակից այս դասարանում և/կամ վերարտադրելու նյութեր, որ ես կարող եմ արտադրել որպես մաս դասարանային գործունեության:

☐ **ԵՍ ՉԵՄ** տալիս իմ արտոնությունը ինձ տեսագրելու կամ վերարտադրելու նյութեր, որ ես կարող եմ արտադրել որպես մաս դասարանային գործունեությունների:

Ուսանողի ստորագրություն՝ _____ Թվական՝ _____

Ծննդյան թվական՝ _____ / _____ / _____
Ամիս Օր Տարի

学生授权表

(参与此项计划的学生如未成年应由其父母 / 法定监护人填写, 如年满 18 周岁可由其本人填写)

父母 / 监护人敬启:

我是本学年一项评估计划的参与者, 此项计划针对有经验的教师进行优秀教师资格认证。我自愿参与由 National Board for Professional Teaching Standards (全国专业教学标准委员会, 简称 NBPTS) 举办的此项评估。此项评估的首要目的在于促进学生的学习和鼓励教师在教学中的优异表现。

此项计划要求提交课堂教学的简短录像, 其中可能会涉及到您的孩子。尽管录像中会出现教师和很多学生, 但其内容主要侧重于教师的指导, 而不是课堂上的学生。在录制过程中, 您的孩子可能会出现在画面上。此外, 在本学年期间, 我可能需要抽取学生作业并提交给 NBPTS, 以此作为我的教学实践证明, 其中可能会包括您孩子的作业。

所提交的任何材料中均不会出现学生姓氏。NBPTS 可自行使用和分发我的录像、评语和课堂材料, 用于评估、专业发展和研究用途, 以及 NBPTS 认为有助于达成其使命的其它任何用途。以下表格将用于记录您对这些行为的许可。

此致, _____
(参评人签名)

许可单

学生姓名: _____ 学校 / 教师: _____

您的地址: _____

我是上述学生的父母 / 法定监护人。我已收到并阅读了您关于 National Board for Professional Teaching Standards (NBPTS) 举办的教师评估的信件, 并同意以下事项:

(请在下面相应的方框中打钩)

- ☐ 我允许我的孩子在 _____ 学校 _____ 教师的课堂上的学习
(学校名称) (教师姓名)
画面出现在您的录像中, 以及 (或者) 复制我的孩子的课堂作业。教师提交的任何材料中均不得出现学生姓氏。
- ☐ 我不允许您录制我的孩子或复制我的孩子的课堂作业。

父母或监护人签名: _____ 日期: _____

我是以上提到的学生, 并已年满 18 周岁。我已阅读并理解了上述的计划说明。我明白此项计划并非评估我的表现, 并且我的姓氏也不会出现在提交的任何材料中。

- ☐ 我允许我在课堂上的学习画面出现在您的录像中, 以及 (或者) 复制我的课堂作业。
- ☐ 我不允许您对我进行录制或复制我的课堂作业。

学生签名: _____ 日期: _____

出生日期: ____ / ____ / ____
年 月 日

FOM RETIRE RESPONSABLITE ELEV

(paran oswa moun ki responsab elèv minè yo oswa elèv ki gen 18 an deja yo epi kap patisipe nan pwojè sa a dwe ranpli fòm sa a.)

Chè paran/moun ki responsab la:

Ane sa a, map patisipe nan yon evalyasyon pou sètifye pwofesè ki gen eksperyans kòm pwofesè eksepsyonèl. Se National Board for Professional Teaching [Konsèy Nasyonal pou Metòd Anseyman Pwofesyonèl] kap fè evalyasyon an epi patisipasyon mwen se yon bagay ki volontè. Rezon prensipal ki fè yap fè evalyasyon sa a, se pou reyose konesans elèv ak pou ankouraje metòd ki ekselan nan anseyman.

Pwojè sa a mande pou mwen prezante ti videyo kout ki gen kou mwen fè nan klas pitit ou a. Byenke pwofesè a ak plizyè elèv ap parèt nan videyo sa yo ansanm, videyo a ap konsantre pi plis sou leson pwofesè a ap bay la, li pap sou elèv ki nan klas la. Pandan anrejistremen an ap fèt la, pitit ou ka parèt nan videyo a. Epitou, pandan ane a, yo ka mande mwen pou mwen prezante kopi travay elèv yo pou mwen pwouve metòd mwen itilize pou mwen fè kou mwen yo. Epi sa vle di, mwen ka prezante travay pitit ou tou.

Siyati elèv yo pap parèt sou okenn materyèl mwen prezante. Se sèl NBPTS ki ka itilize ak bibliye videyo mwen an (videyo mwen yo), kòmmanm mwen yo ak materyèl mwen itilize nan klas mwen pou evalyasyon, pou devlopman pwofesyonèl ak pou rechèch, epi pou nenpòt lòt rezon NBPTS panse ki bon pou li ka pouse misyon òganizasyon an pi devan. Map sèvi ak fòm ki anba a pou pwouve ou te bay pèmasyon ou pou aktivite sa yo.

Ak tout kè mwen, _____

(Siyati kandida a)

FOM POU BAY PEMISYON

Non elèv la: _____ Lekòl la/Pwofesè a: _____

Adrès ou: _____

Mwen se paran/moun ki responsab timoun ki gen non li nan kòmansman fòm sa a. Mwen resevwa lèt ki fè konnen National Board for Professional Teaching [Konsèy Nasyonal pou Metòd Anseyman Pwofesyonèl] pral fè evalyasyon pwofesè a, epi mwen te li lèt la. Mwen dakò pou fè sa ki ekri nan paragrap mwen tcheke anba a:

(Tanpri tcheke kazyè ki di sa ou vle fè a nan kazyè ki anba a yo.)

- ☐ **Mwen** bay pèmasyon mwen pou yo mete foto pitit mwen nan videyo a pandan lap patisipe nan yon klas kap fèt nan _____ ak _____
(Non lekòl la) (Non pwofesè a)
ak pou yo repwodwi travay pitit mwen fè kòm devwa nan klas la. Pa gen siyati kap parèt sou materyèl pwofesè a prezante yo.
- ☐ **Mwen pa** bay pèmasyon mwen pou yo anrejistre pitit mwen nan videyo a ni pou yo repwodwi travay pitit mwen fè kòm devwa kòm travay nan klas

Siyati paran oswa moun ki responsab elèv la: _____ **Dat:** _____

Mwen se elèv ki gen non li nan kòmansman fòm sa a, epi mwen gen 18 an deja. Mwen li epi mwen konprann deskripsyon yo bay sou pwojè a. Mwen byen konprann yo pa evalye pèfòmasyon mwen nan pwojè sa a epi siyati mwen pa parèt sou okenn materyèl yo ta ka prezante.

- ☐ **Mwen** bay pèmasyon mwen pou yo mete foto mwen nan videyo a pandan map patisipe nan klas sa a ak/oswa pou yo repwodwi materyèl mwen prepare kòm aktivite nan klas la.
- ☐ **Mwen pa** bay pèmasyon mwen pou yo anrejistre mwen nan videyo a ni pou yo repwodwi materyèl mwen prepare kòm aktivite nan klas.

Siyati elèv la: _____ **Dat:** _____

Dat nesans: _____ / _____ / _____
MM JJ AA

فرم ترخیص شاگرد

(که توسط والدین / اولیای قانونی شاگردان کوچک شریک این پروژه یا توسط شاگرد اینکه بیش از 18 سال دارند و در پروژه اشتراک می ورزند پر شود)

والدین / اولیای گرامی:

بنده در یک پروژه ارزیابی سال تحصیلی مدرسه برای تصدیق از آموزگاران ورزیده بعنوان عاملین برجسته در وظیفه تدریسی اشتراک می ورزم. اشتراک بنده درین پروژه ارزیابی که توسط هیئت ملی برای استاندارد هائی آموزش حرفه ای اجرا می گردد، داوطلبانه است. اهداف اساسی این ارزیابی عبارت است از، پیشرفت آموزش شاگردان و تشویق از فضیلت و مهارت در وظیفه درس و تدریس.

این پروژه ایجاب میکند که نوار هائی ویدیوی مختصر دروس که در کلاس بچه شما داده می شود، ارایه گردد. اگرچه نوار هائی ویدیوی هم آموزگار و هم شاگردان مختلفی را نمایش میدهد توجه اساسی به جنبه تدریس آموزگار و نه به شاگرد در کلاس مر کوز نگه داشته شده است. در دوران ضبط نوار ممکن است عکس بچه شما روی نوار ویدیوی ظاهر شود- همچنین در اوقاتی، دوران سال ممکن است از من تقاضا شود تا نمونه هائی کار و کوشش شاگرد را بعنوان شهادت عمل تدریسی ارایه دهم و آن کار و کوشش ممکن است شامل یک قسمت کار و کوشش بچه شما باشد.

آخرین قسمت اسم هیچ شاگرد روی مواد ارایه شده ظاهر نخواهد شد. هیئت ملی برای استاندارد هائی آموزش حرفه ای به اختیار کامل خود میتواند نوار هائی ویدیوی من، نظریات من و مواد کلاس من برای ارزیابی، ترویج و تشویق حرفه ای و مقاصد تفحصاتی و مقاصد دیگری که به نظر هیئت ملی برای استاندارد هائی آموزش حرفه ای در جهت پیش بردن ماموریت سازمان شایسته باشد، استعمال و توزیع کند. فرم زیرین بعنوان سندی از بابت اجازه شما برای چنین فعالیت ها مورد استفاده قرار خواهد گرفت.

مخلص شما _____

(امضای کاندید)

اجازه نامه

اسم شاگرد: _____ مدرسه / آموزگار: _____

نشانی شما: _____

بنده پدر / ولی قانونی بچه نامبرده هستم. نامه شمارا درباره ارزیابی آموزگار که توسط هیئت ملی برای استاندارد هائی آموزش حرفه ای (این بی پی تی ایس) اجرا میگردد دریافت داشته، و خوانده ام و با شرایط زیرین موافقت دارم.
(لطفاً به خانه شایسته زیرین رسیدگی کنید)

☐ بنده به شما اجازه میدهم، عکس فرزندم را روی نوار ویدیو نمایش بدهید و قتیکه او در یک کلاس که در _____ توسط _____ اجرا میگردد، اشتراک می ورزد و یا مواد آموزشی (اسم آموزگار) (اسم مدرسه)

که فرزندم بعنوان یک قسمت فعالیت هائی کلاس آماده میکند، ازان دیگر بردارند. هیچ مواد آموزشی که توسط آموزگار ارایه شود دارای آخرین قسمت اسم ها نخواهد بود.

☐ بنده اجازه نمی دهم که عکس فرزندم روی نوار ویدیو ظاهر شود و یا از مواد آموزشی که فرزندم ممکن است بعنوان فعالیت هائی کلاس آماده کند دیگر بردارند.

امضای والدین یا والی: _____ تاریخ: _____

بنده شاگرد هستم که بالا نامبرده شده و بیش از 18 سال دارم. شرح پروژه را طوریکه بالا داده شده خوانده و فهمیده ام. اطلاع دارم که عملکرد بنده از طریق این پروژه ارزیابی نمی شود و نیز اینکه اسم بنده در کدام مواد آموزشی که ممکن است ارایه گردد ظاهر نخواهد شد.

☐ بنده به شما اجازه میدهم که عکس ام را روی نوار ویدیو نمایش بدهید و قتیکه درین کلاس اشتراک می ورزم و / یا از مواد آموزشی که بعنوان یک قسمت فعالیت هائی کلاس توسط بنده آماده شود از آن دیگر بردارید.

☐ بنده اجازه نمی دهم عکس ام را روی نوار ویدیو نمایش بدهید یا مواد آموزشی که بعنوان یک قسمت فعالیت هائی کلاس آماده کنم از آن دیگر بردارید.

امضای شاگرد: _____ تاریخ: _____

تاریخ تولد: _____ / _____ / _____
ماه روز سال

DECHARGE DE REponsabilite de l'ÉLEVE

(Les parents/tuteurs des élèves mineurs ou les élèves âgés de plus de 18 ans participant à ce projet doivent remplir ce formulaire.)

Cher Parent/Tuteur:

Pendant cette année scolaire, je participerai à une évaluation pour la certification des professeurs de carrière comme enseignants exceptionnels. Ma participation à cette évaluation du National Board for Professional Teaching [Conseil national des méthodes d'enseignement professionnel] est volontaire. Le but principal de cette évaluation est de rehausser la connaissance des élèves et d'encourager l'excellence dans l'enseignement.

Il importe donc que le candidat soumette une bande vidéo des leçons faites à la classe de votre enfant. Bien que les bandes vidéos enregistrent à la fois le professeur et plusieurs élèves, l'attention est concentrée sur l'exposé du professeur et non sur les élèves en classe. Pendant l'enregistrement, il est possible que votre enfant soit vu sur la bande vidéo. Puis, au cours de l'année, on peut me demander de soumettre des exemplaires du travail des élèves et même celui de votre enfant en témoignage des méthodes d'enseignement.

Le nom de famille de l'enfant ne figurera pas sur les travaux soumis. NBPTS seul peut utiliser et publier ma (mes) bande(s) vidéo(s), mes commentaires, et mes matériels éducatifs pour l'évaluation, le développement professionnel et les recherches, et toute autre raison prévue par NBPTS dans le but de promouvoir la mission de l'organisation. Prière de remplir le formulaire ci-dessous pour donner votre permission à ces activités.

Je vous prie d'agréer mes salutations distinguées, _____
(Signature du candidat)

FICHE DE PERMISSION

Nom de l'élève: _____ École/Professeur: _____

Votre adresse: _____

Je suis le parent/tuteur de l'enfant susnommé. J'ai reçu et lu votre lettre de l'évaluation de professeur qui sera faite par le National Board for Professional Teaching [Conseil national des méthodes d'enseignement professionnel] (NBPTS), et je consens au suivant:

(Cochez le casier convenable.)

- ☐ **Je vous donne l'autorisation d'inclure la photo de mon enfant sur la bande vidéo pendant qu'il est en classe à _____ avec _____**
(Nom de l'école) (Nom du professeur)
et/ou de reproduire les matériels que mon enfant prépare comme devoir en classe. Les noms de famille ne figureront pas sur les matériels soumis par le professeur.
- ☐ **Je ne donne pas l'autorisation d'inclure la photo de mon enfant sur la bande vidéo et les devoirs que mon enfant fait en classe ne seront pas reproduits.**

Signature du parent ou tuteur: _____ Date: _____

Je suis l'élève susnommé et j'ai plus de 18 ans. J'ai lu et compris la description du projet. Je crois comprendre que ma performance ne sera pas évaluée et que mon nom de famille ne figurera pas sur les matériels soumis.

- ☐ **Je vous donne l'autorisation d'inclure ma photo sur la bande vidéo pendant que je suis en classe et/ou de reproduire les devoirs que je fais en classe.**
- ☐ **Je ne donne pas l'autorisation d'inclure ma photo sur la bande vidéo et les devoirs que je fais en classe ne seront pas reproduits.**

Signature de l'élève: _____ Date: _____

Date de naissance: _____ / _____ / _____

MM JJ AA

સ્ટુડન્ટ રીલીઝ ફોર્મ

(આ પ્રોજેક્ટ સાથે સંકળાયેલા સગીર વયના વિદ્યાર્થીઓનાં માતા કે પિતા / કાનૂની વાલીએ અથવા આ પ્રોજેક્ટ સાથે સંકળાયેલા 18 વર્ષથી ઉપરની વયના વિદ્યાર્થીઓએ આ ફોર્મ ભરવાનું છે)

પ્રિય માતા / પિતા / વાલી :

આ વર્ષ દરમિયાન શાળાના અનુભવી શિક્ષકોને શિક્ષણ કાર્યમાં પ્રતિભાશાળી તરીકે મૂલવવા માટેના આ કાર્યક્રમમાં હું ભાગ લઉં છું. નેશનલ બોર્ડ ફોર પ્રોફેશનલ ટીચિંગ સ્ટેન્ડર્ડ્ઝ દ્વારા હાથ ધરાયેલા આ મૂલ્યાંકન કાર્યમાં હું સ્વેચ્છાએ ભાગ લઉં છું. વિદ્યાર્થીઓ વધુ શીખી શકે અને શિક્ષણમાં ઉત્કૃષ્ટતાને પ્રોત્સાહન મળે તે આ મૂલ્યાંકનના પ્રાથમિક ઉદ્દેશો છે.

આ યોજના હેઠળ તમારા બાળકના વર્ગમાં શીખવવામાં આવતા પાઠોની ટૂંકી વીડિયોટેપ આપવાની રહેશે. વીડિયોટેપમાં શિક્ષક તેમ જ જુદા જુદા વિદ્યાર્થીઓ હશે પરંતુ એમાં વિદ્યાર્થીઓ પર નહિ, શિક્ષક દ્વારા અપાતા શિક્ષણ પર ધ્યાન કેન્દ્રિત કરાશે. ટેપ કરતી વખતે તમારું બાળક પણ વીડિયોટેપમાં દેખાઈ શકે છે. વળી વર્ષ દરમિયાન ક્યારેક ક્યારેક, શિક્ષણ કેવું અપાય છે તેના નમૂના તરીકે વિદ્યાર્થીનું કાર્ય પણ રજૂ કરવાનું કહેવામાં આવશે. આમાં અમુક કાર્ય કદાચ તમારા બાળકે કર્યું હોય તે પણ હોઈ શકે છે.

જે કંઈ સામગ્રી રજૂ થશે તેમાં વિદ્યાર્થીની અટક લખેલી નહિ હોય. નેશનલ બોર્ડ ફોર પ્રોફેશનલ ટીચિંગ સ્ટેન્ડર્ડ્ઝ, પોતાની વિવેકબુદ્ધિ પ્રમાણે, મારી વીડિયોટેપ / ટેપો, મારી ટિપ્પણીઓ અને મારી વર્ગકાર્યની સામગ્રીનો, મૂલ્યાંકન, વ્યાવસાયિક વિકાસ અને સંશોધનના હેતુ માટે અને નેશનલ બોર્ડ ફોર પ્રોફેશનલ ટીચિંગ સ્ટેન્ડર્ડ્ઝ સંસ્થાના કાર્યને આગળ વધારવા માટે ઉપયોગ અને એમનું વિતરણ કરી શકે છે. આ કાર્યો માટે તમારી પરવાનગીની નોંધ લેવા નીચે આપેલા ફોર્મનો ઉપયોગ કરવામાં આવશે.

આપનો હૃદયપૂર્વક _____
(ભાગ લેનારની સહી)

પરમિશન સ્લિપ

વિદ્યાર્થીનું નામ : _____ શાળા / શિક્ષક : _____

તમારું સરનામું : _____

હું ઉપરોક્ત બાળકની / નો માતા / પિતા / કાનૂની વાલી છું. મને તમારો પત્ર મળ્યો છે અને એ વાંચીને મેં જાણ્યું છે કે નેશનલ બોર્ડ ફોર પ્રોફેશનલ ટીચિંગ સ્ટેન્ડર્ડ્ઝ (એનબીપીટીએસ) દ્વારા શિક્ષકના મૂલ્યાંકનનો કાર્યક્રમ હાથ ધરાયો છે અને હું નીચે જણાવેલી બાબતો માટે સંમત થાઉં છું :

(નીચે આપેલાં યોગ્ય ખાના ચેક કરો.)

- ☐ આથી હું તમનું _____ મો _____ દ્વારા ચલાવતા વર્ગમાં મારું બાળક ભાગ
(શાળાનું નામ) (શિક્ષકનું નામ)
લેતું હોય તેની તસ્વીર ઝડપવાની અને / અથવા વર્ગની પ્રવૃત્તિ તરીકે મારું બાળક જે કાર્ય કરે તે ફરી પ્રદર્શિત કરવાની પરવાનગી આપું છું.
શિક્ષકે રજૂ કરેલી કોઈ પણ સામગ્રી પર અટક નહિ લખાય.
- ☐ હું મારું બાળક વીડિયોટેપમાં દેખાય અથવા વર્ગની પ્રવૃત્તિ તરીકે એણે જે કાર્ય કર્યું હોય તે ફરી પ્રદર્શિત કરવાની પરવાનગી આપતો નથી.

માતા / પિતા કે વાલીની સહી : _____ તારીખ : _____

હું ઉપરોક્ત નામનો વિદ્યાર્થી છું અને મારી ઉંમર 18 વર્ષથી ઉપર છે. ઉપર પ્રોજેક્ટનું જે વર્ણન આપ્યું છે તે મેં વાંચ્યું છે અને એ સમજ્યો છું. મારી સમજણ પ્રમાણે આ પ્રોજેક્ટમાં મારા કાર્યનું મૂલ્યાંકન થતું નથી અને જે કંઈ સામગ્રી રજૂ થાય તેમાં મારી અટક લખાશે નહિ.

- ☐ આ વર્ગમાં હું ભાગ લેતો હોઉં તે વખતે વીડિયોટેપમાં મારી તસ્વીર ઝડપવાની અને / અથવા વર્ગની પ્રવૃત્તિ તરીકે મેં કરેલા કાર્યને ફરી પ્રદર્શિત કરવાની પરવાનગી આપું છું.
- ☐ વીડિયોટેપમાં મારી તસ્વીર ઝડપવાની કે વર્ગની પ્રવૃત્તિ તરીકે મેં કરેલા કાર્યને ફરી પ્રદર્શિત કરવાની હું પરવાનગી આપતો નથી.

વિદ્યાર્થીની સહી : _____ તારીખ : _____

જન્મ તારીખ : _____ / _____ / _____
માસ માસ દિવસ દિવસ વર્ષ વર્ષ

छात्र निर्मुक्ति प्रपत्र

(इस परियोजना से जुड़े अवयस्क छात्रों के माता-पिता/विधिक अभिभावक द्वारा या उन छात्रों के लिए जो 18 वर्ष से अधिक आयु के हैं और इस परियोजना से जुड़े हैं, द्वारा पूर्ण किया जाना चाहिए)

प्रिय माता-पिता/अभिभावक :

अनुभवी शिक्षकों को शिक्षण के क्षेत्र में श्रेष्ठता प्रमाणित करने के लिए किए जा रहे मूल्यांकन में मैं इस पाठ्य-वर्ष में भाग ले रहा हूँ। नैशनल बोर्ड फॉर प्रोफेशनल टीचिंग स्टैंडर्ड्स द्वारा संचालित इस मूल्यांकन में मेरी भागीदारी स्वैच्छिक है। इस मूल्यांकन का मुख्य उद्देश्य है छात्रों के ज्ञान में वृद्धि एवं शिक्षण में श्रेष्ठता को बढ़ावा देना।

इस परियोजना के तहत आपके बच्चे की कक्षा में पढ़ाए गए पाठों के लघु वीडियोटेप प्रस्तुत करने होंगे। यद्यपि वीडियोटेप में शिक्षक और विभिन्न छात्रों को दिखाया जाएगा, पर उसका मुख्य केन्द्र शिक्षक की शिक्षण शैली होगा, कक्षा के छात्र नहीं। रिकॉर्ड करते समय संभव हो सकता है कि आपका बच्चा भी इस वीडियोटेप में दिखाई दे। इसके अतिरिक्त, हो सकता है कि इस वर्ष में समय-समय पर मुझे शिक्षण-अभ्यास के प्रमाण के रूप में छात्रों द्वारा किए गए कार्यों के नमूने प्रस्तुत करने के लिए कहा जाए, जिसमें आपके बच्चे का कार्य भी सम्मिलित हो।

प्रस्तुत की गई किसी सामग्री पर किसी भी छात्र का अंतिम नाम नहीं लिखा होगा। नैशनल बोर्ड फॉर प्रोफेशनल टीचिंग स्टैंडर्ड्स अपने अनन्य स्वविवेक से व्यावसायिक विकास और शोध एवं अन्य किसी भी उद्देश्य से जिसे नैशनल बोर्ड फॉर प्रोफेशनल टीचिंग स्टैंडर्ड्स अपनी संस्थान के लक्ष्य को आगे बढ़ाने में उपयुक्त मानता हो, मूल्यांकन के लिए मेरे वीडियोटेप, मेरी टिप्पणियाँ और मेरी शिक्षण सामग्री को प्रयोग में ला सकता है और वितरित कर सकता है। नीचे दिए गए प्रपत्र को इन गतिविधियों के लिए आपकी स्वीकृति के लिखित प्रमाण के रूप में प्रयोग किया जाएगा।

भवदीय, _____

(अभ्यर्थी के हस्ताक्षर)

स्वीकृति पर्ची

छात्र का नाम: _____ स्कूल / शिक्षक: _____

आपका पता : _____

मैं उपर्युक्त बच्चे की माता/पिता/विधिक अभिभावक हूँ। नैशनल बोर्ड फॉर प्रोफेशनल टीचिंग स्टैंडर्ड्स (एनबीपीटीएस) द्वारा किए जा रहे शिक्षक मूल्यांकन के विषय में मैंने आपका पत्र प्राप्त कर पढ़ लिया है और मैं निम्नलिखित से सहमत हूँ :

(नीचे दिए गए विकल्पों में से उपयुक्त को चिह्नित करें)

- ☐ मैं आपको अनुमति देता/देती हूँ कि आप _____ द्वारा _____ (शिक्षक का नाम) _____ (स्कूल का नाम) में चलाई जा रही कक्षा में भाग ले रहे मेरे बच्चे का चित्र वीडियोटेप में सम्मिलित कर सकते हैं तथा/अथवा कक्षा- कार्य के दौरान मेरे बच्चे द्वारा किए गए कार्यों की प्रतिलिपि बना सकते हैं। शिक्षक द्वारा प्रस्तुत की गई किसी भी सामग्री पर अंतिम नाम नहीं लिखा होगा।
- ☐ मैं अनुमति नहीं देता/देती हूँ कि मेरे बच्चे का चित्र वीडियोटेप में आए या कक्षा-कार्य के दौरान मेरे बच्चे द्वारा किए गए कार्यों की आप प्रतिलिपि बनाएँ।

माता/पिता/अभिभावक के हस्ताक्षर: _____ तिथि: _____

मैं उपर्युक्त छात्र हूँ और मेरी आयु 18 वर्ष से अधिक है। मैंने ऊपर लिखा गया परियोजना विवरण पढ़ और समझ लिया है। मैं यह समझता हूँ कि इस परियोजना द्वारा मेरे कार्य का मूल्यांकन नहीं किया जा रहा एवं आगे प्रस्तुत की जाने वाली किसी भी सामग्री में मेरा अंतिम नाम नहीं लिखा होगा।

- ☐ मैं आपको अनुमति देता/देती हूँ कि इस कक्षा में भाग लेते हुए आप मेरे चित्र वीडियोटेप में सम्मिलित कर सकते हैं तथा/अथवा कक्षा-कार्य के दौरान मेरे द्वारा किए गए कार्यों की प्रतिलिपि बना सकते हैं।
- ☐ मैं आपको अनुमति नहीं देता/देती हूँ कि मेरा चित्र वीडियोटेप में आए या कक्षा-कार्य के दौरान किए गए मेरे कार्यों की आप प्रतिलिपि बनाएँ।

छात्र के हस्ताक्षर: _____ तिथि: _____

जन्म-तिथि : _____ / _____ / _____
मास तिथि वर्ष

生徒参加承諾書

(このプロジェクトに関与する生徒が未成年の場合は親または法的後見人が、
またプロジェクトに関与する生徒が18歳以上の場合は生徒本人が署名すること)

保護者／後見人殿：

私は今年度、優秀授業指導の経験を積んだ教師として認定を受けるため、評価プロジェクトに参加しています。この評価プロジェクトは、米国授業専門職基準委員会（NBPTS; National Board for Professional Teaching Standards）が実施しているもので、参加は任意です。この評価プロジェクトの第一の目的は、授業指導における学習の向上を図り、優れた指導を奨励することにあります。

このプロジェクトでは、お子様方のクラスでの授業を、短時間のビデオに録画して提出することが求められています。このビデオには教師およびさまざまな生徒の様子が録画されますが、第一の狙いは教師の指導を撮影することであり、クラスの生徒を撮影することではありません。録画の際には、お宅のお子様撮影される可能性があります。また、今年度中に、授業指導の実例サンプルとして生徒の作品等を提出するよう求められる場合があります、これにはお宅のお子様の作品等が含まれる可能性があります。

提出物には、生徒の姓が出ることは一切ありません。米国授業専門職基準委員会では、評価および指導研究開発の目的、あるいは米国授業専門職基準委員会が自らの使命のために適切であると考え何らかの目的のため、米国授業専門職基準委員会独自の裁量により、私の提出するビデオテープやコメント、クラスの教材などを利用・配布する場合があります。下記の書式は、これらの活動について、皆様の承諾を戴くためのものです。

どうぞよろしくお願い致します。 _____

(参加者署名)

承諾書

生徒名： _____ 学校/教師名： _____

住所： _____

私は上記生徒の親または法的後見人であり、米国授業専門職基準委員会（NBPTS; National Board for Professional Teaching Standards）による教師評価プロジェクトに関する手紙を受け取り、読んだ上で、下記に合意します：

(下記のいずれかの四角にチェックマークを記入してください。)

- ☐ 私は、 _____ において _____ 先生が行う授業に上記生徒が
(学校名) (教師名)
参加する際に、ビデオ撮影に含められること、および授業活動の一環として上記生徒が作成した作品等が複製され得ることをここに**承諾します**。上記教師による提出物には、生徒の姓は一切表示されません。
- ☐ 私は、上記生徒がビデオ撮影に含められることにも、授業活動の一環として上記生徒が作成した作品等が複製使用され得ることについても、**承諾しません**。

親または法的後見人の署名： _____ 日付： _____

私は上記生徒であり、18歳以上です。上記のプロジェクトに関する説明を読み、理解しました。このプロジェクトによって私の成績が評価されるものではないこと、および提出物には私の姓が表示されないことを理解しました。

- ☐ 私は、このクラスにおいてビデオ録画に撮影されること、および授業活動の一環として私が作成した作品等が複製され得ることをここに**承諾します**。
- ☐ 私は、ビデオ録画に撮影されることにも、また授業活動の一環として私が作成した作品等が複製使用され得ることについても、**承諾しません**。

生徒署名： _____ 日付： _____

生年月日： _____ / _____ / _____
MM DD YY

수업 공개서

(본 프로젝트에 관련된 미성년 학생들의 학부모/법적 후견인 또는 본 프로젝트에 관련된 18세 이상의 학생들이 작성)

학부모/후견인 귀하

본인은 이번 학년도에 경험있는 교사를 우수 교육 실천가로 인증하기 위한 평가의 참가자입니다. NBPTS(National Board for Professional Teaching Standards)에 의해 실시 중인 이번 평가에 저는 자발적으로 참가하고 있습니다. 이번 평가의 주요 목적은 학생의 학습을 향상시키고 수업의 충실도를 향상시키는 것입니다.

본 프로젝트는 귀하의 자녀의 교실에서 이루어지는 수업을 담은 비디오 테이프를 제출할 것을 요구하고 있습니다. 비디오 테이프에 교사와 여러 학생들이 등장하겠지만, 교실의 학생이 아니라 교사의 수업에 주로 초점이 맞춰집니다. 녹화 중에 귀하의 자녀가 비디오 테이프에 등장할 수도 있습니다. 또한 학년도 중에 수업의 증거로서 학생의 과제물 견본을 제출해야 하는 경우도 있을 것이며, 그러한 과제물에는 귀하의 자녀의 과제물도 포함될 수 있습니다.

제출된 자료에는 어떤 학생의 성도 표시되지 않을 것입니다. NBPTS(National Board for Professional Teaching Standards)는 재량에 따라 평가, 전문 능력 개발, 연구를 위해 그리고 NBPTS(National Board for Professional Teaching Standards)가 적합하다고 인정하는 다른 목적을 위해 본 단체의 사명을 완수하기 위해 본인의 비디오 테이프, 의견, 수업 자료를 사용하고 배포할 수 있습니다. 아래 서식은 이러한 활동에 대한 귀하의 허가사항을 기술하는 데 사용될 것입니다.

안녕히 계십시오. _____

(후보자 서명)

허가서

학생 이름: _____ 학교/교사: _____

주소: _____

본인은 위 학생의 학부모/법적 후견인입니다. 본인은 NBPTS(National Board for Professional Teaching Standards)가 실시 중인 교사 평가에 관한 귀하의 서신을 받아 읽어보았으며 다음 사항에 동의합니다.

(아래 해당 항목에 체크 표시하십시오.)

- ☐ _____에서 _____가 진행하는 수업에 참여하는 본인 자녀의
(학교명) (교사명)
모습을 비디오 테이프에 포함시키고 본인 자녀가 수업의 일환으로서 만드는 자료들을 복사하는 것을 **허가합니다**. 교사가 제출하는 어떤 자료에도 성이 표시되지 않을 것입니다.
- ☐ 본인 자녀를 비디오로 촬영하거나 본인 자녀가 수업의 일환으로 만들 수도 있는 자료를 복사하는 것을 **허가하지 않습니다**.

학부모 또는 후견인의 서명: _____ 날짜: _____

본인은 위 학생이며 18세이상입니다. 본인은 위 프로젝트 설명을 읽고 이해합니다. 본인의 학습 성과가 본 프로젝트에 의해 평가되지 않고 있으며 본인의 성이 제출되는 어떤 자료에도 표시되지 않는다는 것을 이해합니다.

- ☐ 본인은 본 수업에 참여하는 본인의 모습을 비디오로 촬영하고 수업의 일환으로 본인이 만들 수도 있는 자료들을 복사하는 것을 **허가합니다**.
- ☐ 본인은 본인의 모습을 비디오로 촬영하거나 수업의 일환으로 본인이 만들 수도 있는 자료를 복사하는 것을 **허가하지 않습니다**.

학생의 서명: _____ 날짜: _____

생년월일: ____/____/____
 년도 월 일

ໃບແຈ້ງການກ່ຽວກັບນັກສຶກສາ

(ຈະຕ້ອງແມ່ນ ພໍ່ແມ່/ຜູ້ປົກຄອງເດັກຕາມກົດໝາຍ ທີ່ກ່ຽວຂ້ອງກັບໂຄງການນີ້ເທົ່ານັ້ນ ທີ່ສາມາດອອກແບບຟອມນີ້ ແທນເດັກທີ່ຍັງບໍ່ທັນພົ້ນກະສຽນ, ຫລື ໂດຍນັກສຶກສາທີ່ມີອາຍຸເກີນ18ປີ ທີ່ກ່ຽວຂ້ອງກັບໂຄງການນີ້)

ເຖິງ : ພໍ່ແມ່/ຜູ້ປົກຄອງເດັກ ທີ່ຮັກແພງ:

ໃນສົກຮຽນປີນີ້ ຂ້າພະເຈົ້າເປັນໜຶ່ງທີ່ເຂົ້າຮ່ວມ ຕີລາຄາປະເມີນຜົນ ເພື່ອຢັ້ງຢືນປະສົບການຂອງຄູອາຈານທີ່ດີເດັ່ນດ້ານການສິດສອນ. ການປະກອບສ່ວນໃນການຕີລາຄາປະເມີນຜົນຄັ້ງນີ້ ດຳເນີນການໂດຍສະພາຄຸ້ມຄອງ ມາດຕະຖານອາຊີບການສອນແຫ່ງຊາດ (NBPTS) ແລະການເຂົ້າຮ່ວມຂອງຂ້າພະເຈົ້າກໍ່ ແມ່ນດ້ວຍຄວາມສະມັກໃຈ. ເປົ້າຫມາຍຫລັກຂອງການຕີລາຄາ ປະເມີນຜົນຄັ້ງນີ້ ແມ່ນເພື່ອເພີ່ມທະວີ ການຮຳຮຽນຂອງນັກຮຽນ ແລະສົ່ງເສີມການສິດສອນທີ່ດີເດັ່ນ.

ໂຄງການນີ້ ຕ້ອງການ ວິດີໂອເທບສັ້ນໆກ່ຽວກັບ ການສິດສອນບົດຮຽນໃນຫ້ອງຂອງລູກທ່ານ. ເຖິງແມ່ນວ່າ ໃນວິດີໂອເທບນັ້ນ ພົວພັນເຖິງທັງຄູແລະນັກຮຽນຫລາຍຄົນກໍ່ຕາມ, ແຕ່ຈຸດທີ່ເອົາໃຈໃສ່ແມ່ນຢູ່ທີ່ການສິດສອນຂອງຄູ ຫາກບໍ່ແມ່ນຢູ່ທີ່ນັກຮຽນໃນຫ້ອງ. ແນ່ນອນວ່າ ໃນຊ່ວງການບັນທຶກເທບ ລູກຂອງທ່ານອາດຈະປະກົດຢູ່ໃນພາບ. ພ້ອມກັນນີ້, ໃນຕະຫລອດສົກປີຮຽນ ຂ້ອຍອາດຈະໄດ້ຮ້ອງຂໍ ໃຫ້ສົ່ງຕົວຢ່າງວຽກດີເດັ່ນຂອງນັກຮຽນ ເພື່ອເປັນຫລັກຖານຢັ້ງຢືນການສອນຕົວຈິງ ແລະວຽກດັ່ງກ່າວນັ້ນ ອາດຈະລວມບາງວຽກດີເດັ່ນຂອງລູກທ່ານເອງດ້ວຍ.

ຈະບໍ່ມີນາມສະກຸນ ຂອງນັກຮຽນຜູ້ໃດ ປະກົດຢູ່ໃນວັດຖຸທີ່ສົ່ງໄປ. ບົນພື້ນຖານສິດຂອງຕົນ, NBPTS ອາດຈະນຳໃຊ້ແລະເຜີຍແພ່ ວິດີໂອເທບ, ຄວາມຄິດເຫັນແລະອຸປະກອນສິດສອນຂອງຂ້າພະເຈົ້າເພື່ອປະເມີນຜົນ, ເພື່ອພັດທະນາດ້ານອາຊີບ ແລະການຄົ້ນຄ້ວາ, ແລະຈຸດປະສົງອື່ນໆອີກ ທີ່ NBPTS ເຫັນວ່າ ເໝາະສົມ ເພື່ອສືບຕໍ່ພາລະກິດຂອງອົງການ. ແບບຟອມຂ້າງລຸ່ມນີ້ ຈະຖືກໃຊ້ເປັນເອກະສານຢັ້ງຢືນ ການອະນຸຍາດຂອງທ່ານຕໍ່ບັນດາກິດຈະກຳເຫລົ່ານີ້.

ດ້ວຍຄວາມນັບຖືຢ່າງສູງ _____

(ລາຍເຊັນຜູ້ສະໝັກ)

ໃບຂໍອະນຸຍາດ

ຂໍ້ນັກຮຽນ: _____ ໂຮງຮຽນ/ຄູສອນ: _____

ທີ່ຢູ່ຂອງທ່ານ: _____

ຂ້າພະເຈົ້າເປັນ ພໍ່ແມ່/ຜູ້ປົກຄອງຖືກຕ້ອງຕາມກົດໝາຍຂອງເດັກທີ່ມີຊື່ຂ້າງເທິງ. ຂ້າພະເຈົ້າໄດ້ຮັບແລະອ່ານຈົດໝາຍຂອງທ່ານກ່ຽວກັບການຕີລາຄາປະເມີນຜົນດ້ານການສິດສອນ ເຂົ້າກຳລັງດຳເນີນການໂດຍ ສະພາ ຄຸ້ມຄອງດ້ານມາດຕະຖານອາຊີບການສອນແຫ່ງຊາດ (NBPTS), ແລະເຫັນດີ ດັ່ງລຸ່ມນີ້:

(ກະລຸນາຫມາຍໃສ່ Box ທີ່ເໝາະສົມຂ້າງລຸ່ມ)

- ☐ ຂ້າພະເຈົ້າອະນຸຍາດໃຫ້ທ່ານ ນຳໃຊ້ ວິດີໂອເທບທີ່ມີຮູບພາບຂອງລູກຂ້າພະເຈົ້າ ໃນຂະນະທີ່ລາວໄດ້ເຂົ້າຮ່ວມຫ້ອງຮຽນ ທີ່ຖືກຈັດຂຶ້ນທີ່ _____ ໂດຍ _____ ແລະ/ຫລື ເພື່ອ _____ (ຊື່ໂຮງຮຽນ) _____ (ຊື່ຄູ)
- ຈັດທຳອຸປະກອນ ທີ່ ລູກຂ້າພະເຈົ້າອາດຈະໄດ້ປະກອບສ່ວນ ເປັນພາກສ່ວນໜຶ່ງຂອງກິດຈະກຳໃນຫ້ອງຮຽນ. ຈະບໍ່ມີນາມສະກຸນ ປະກົດຢູ່ໃນອຸປະກອນຕ່າງໆ ທີ່ຄູໄດ້ສົ່ງໄປ.
- ☐ ຂ້າພະເຈົ້າບໍ່ອະນຸຍາດ ໃຫ້ບັນທຶກພາບລູກຂອງຂ້າພະເຈົ້າ ຫລືໃຫ້ຖ່າຍທຳອຸປະກອນໃດໆ ທີ່ ລູກຂ້າພະເຈົ້າໄດ້ປະກອບສ່ວນ ເປັນພາກສ່ວນໜຶ່ງຂອງກິດຈະກຳໃນຫ້ອງຮຽນ.

ລາຍເຊັນພໍ່ແມ່ ຫລືຜູ້ປົກຄອງ _____ ວັນທີ _____

ຂ້າພະເຈົ້າເປັນນັກຮຽນທີ່ມີຊື່ຂ້າງເທິງແລະມີອາຍຸຫລາຍກວ່າ18ປີ. ຂ້າພະເຈົ້າໄດ້ອ່ານແລະເຂົ້າໃຈລາຍລະອຽດຂອງໂຄງການທີ່ກ່າວຂ້າງເທິງ. ຂ້າພະເຈົ້າເຂົ້າໃຈວ່າ ການສະແດງຂອງຂ້າພະເຈົ້າຈະບໍ່ຖືກຕີລາຄາໂດຍໂຄງການນີ້ ແລະນາມສະກຸນຂ້າພະເຈົ້າຈະບໍ່ປະກົດຢູ່ອຸປະກອນໃດໆທີ່ຖືກສົ່ງໄປ.

- ☐ ຂ້າພະເຈົ້າອະນຸຍາດ ໃຫ້ທ່ານ ນຳໃຊ້ ວິດີໂອເທບທີ່ມີຮູບພາບຂອງຂ້າພະເຈົ້າ ໃນຂະນະທີ່ຂ້າພະເຈົ້າໄດ້ເຂົ້າຮ່ວມຫ້ອງຮຽນແລະ/ຫລື ເພື່ອຈັດທຳອຸປະກອນ ທີ່ຂ້າພະເຈົ້າອາດຈະໄດ້ປະກອບສ່ວນ ເປັນພາກສ່ວນໜຶ່ງຂອງກິດຈະກຳໃນຫ້ອງຮຽນ.
- ☐ ຂ້າພະເຈົ້າບໍ່ອະນຸຍາດ ໃຫ້ນຳໃຊ້ບັນທຶກພາບລູກຂອງຂ້າພະເຈົ້າ ຫລືໃຫ້ຖ່າຍທຳອຸປະກອນໃດໆ ທີ່ ຂ້າພະເຈົ້າໄດ້ປະກອບສ່ວນ ເປັນພາກສ່ວນໜຶ່ງຂອງກິດຈະກຳໃນຫ້ອງຮຽນ.

ລາຍເຊັນນັກຮຽນ _____ ວັນທີ _____

ວັນເດືອນປີເກີດ _____ / _____ / _____
ເດືອນ ວັນທີ່ ປີ

FORMULARZ ZGŁOSZENIOWY UCZNIA

(do wypełnienia przez rodzica/prawnego opiekuna ucznia niepełnoletniego, albo przez ucznia mającego ukończone 18 lat, zaangażowanych w niniejszym programie)

Drogi Rodzicu/Opiekunie:

Jako doświadczony nauczyciel jestem w bieżącym roku szkolnym poddawany ocenie dla uzyskania certyfikatu wyróżniającego się pracownika dydaktycznego. Moje uczestnictwo w niniejszym programie oceny, prowadzonym przez Państwową Komisję ds. Norm Profesjonalnego Nauczania (NBPTS), jest dobrowolne. Podstawowym celem oceny jest podniesienie poziomu nauczania, oraz zachęcenie do doskonalenia umiejętności dydaktycznych nauczycieli.

Program niniejszy wymaga przedstawienia krótkich taśm wideo z lekcji prowadzonych w klasie, w której uczy się Wasze dziecko. Chociaż taśmy te pokazują zarówno nauczyciela jak i uczniów, jednak skoncentrowane są na pracy nauczyciela, a nie uczniów w klasie. Podczas rejestrowania kamerą Wasze dziecko może pojawić się na obrazie. Ponadto, w przeciągu roku szkolnego, mogę zostać poproszony o przedstawienie przykładów prac uczniów jako świadectwa mojej pracy dydaktycznej i wówczas mogą być przedstawione niektóre prace Waszego dziecka.

Nazwisko ucznia nie pojawi się w żadnym przekazanym materiale. NBPTS, z zachowaniem ochrony danych osobowych, może wykorzystywać i rozpowszechniać moją taśmę lub taśmy wideo, moje komentarze oraz materiały z lekcji w klasach, do oceny, do profesjonalnych celów badawczo-rozwojowych, a także do wszelkich innych celów, które zostaną uznane przez NBPTS jako właściwe dla realizacji misji postawionej przed tą organizacją. Poniższy formularz będzie dokumentował Waszą zgodę na te działania.

Z poważaniem, _____
(podpis kandydata)

OŚWIADCZENIE

Nazwisko ucznia: _____ Szkoła/Nauczyciel: _____

Adres rodzica/opiekuna: _____

Jestem rodzicem/opiekunem prawnym wyżej wymienionego ucznia. Otrzymałem(-am) i przeczytałem(-am) powyższy list dotyczący oceny nauczycieli prowadzonej przez Państwową Komisję ds. Norm Profesjonalnego Nauczania (NBPTS) i oświadczam co następuje:

(proszę zaznaczyć właściwe okienko poniżej)

- ☐ **UDZIELAM** panu/pani zezwolenia na zamieszczanie obrazu mego dziecka na taśmie wideo rejestrowanej w czasie uczestnictwa w lekcjach prowadzonych w _____ przez _____
(nazwa szkoły) (nazwisko nauczyciela)
- oraz na reprodukowanie materiałów wytworzonych przez moje dziecko w czasie zajęć lekcyjnych. Żadne nazwisko nie pojawi się na materiałach przekazanych przez nauczyciela.
- ☐ **NIE UDZIELAM** zezwolenia na wideofilmowanie mego dziecka, ani na reprodukowanie materiałów wytworzonych przez moje dziecko w czasie zajęć lekcyjnych.

Podpis rodzica lub opiekuna: _____ Data: _____

Jestem uczniem ww. szkoły i mam ukończone 18 lat. Przeczytałem i zrozumiałem przedstawiony powyżej opis programu. Rozumiem, że w programie tym nie będę oceniany, i że moje nazwisko nie pojawi się w materiałach które mogą być tam przekazane.

- ☐ **UDZIELAM** panu/pani zezwolenia na zamieszczanie mojego obrazu na taśmie wideo rejestrowanej w czasie uczestnictwa w tych lekcjach i na reprodukowanie materiałów wytworzonych przeze mnie w czasie zajęć lekcyjnych.
- ☐ **NIE UDZIELAM** zezwolenia na wideofilmowanie mnie, ani na reprodukowanie materiałów wytworzonych przeze mnie w czasie zajęć lekcyjnych.

Podpis ucznia: _____ Data: _____

Data urodzenia: ____/____/____
MM DD RR

FORMULÁRIO DE DESOBRIGAÇÃO DO ESTUDANTE

(para ser completado pelos pais o protetor legal dos estudantes menores envolvidos neste projeto, ou pelos estudantes que têm mais de 18 anos de idade e estão envolvidos neste projeto)

Caro pai ou protetor legal:

Neste ano de escola, eu sou um participante em uma avaliação para certificar professores experientes como profissionais proeminentes em ensinar. Minha participação nesta avaliação, que está sendo conduzida pela Camara Nacional para Padrões Profissionais do Ensino (National Board for Professional Teaching Standards - NBPTS), é voluntária. As finalidades preliminares desta avaliação são realçar o estudante que aprende e incentivar uma qualidade superior em ensinar.

Este projeto requer que as videocassetes curtas das lições ensinadas na classe da sua criança estejam submetidas. Embora as videocassetes envolvam o professor e vários estudantes, o foco preliminar está na instrução do professor, não nos estudantes na classe. No curso de gravar, sua criança pode aparecer na videocassette. Também, às vezes durante o ano, eu posso ser pedido para submeter a mostras do trabalho do estudante como evidência da prática de ensinar, e esse trabalho pode incluir alguns dos trabalhos da sua criança. O último nome de nenhum estudante aparecerá em todos os materiais que forem submetidos. A Camara Nacional para Padrões Profissionais do Ensino (NBPTS), em sua única discreção, pode usar e distribuir meu videotape(s), meus comentários e meus materiais da sala de aula para a avaliação, desenvolvimento profissional e finalidades da pesquisa, e toda a outra finalidade Camara Nacional para Padrões Profissionais do Ensino julga apropriado para a missão da organização. O formulário abaixo será usado para documentar sua permissão para estas atividades.

Seu atento, _____
(Assinatura do Candidato)

PERMISSÃO

Nome do estudante: _____ Escola/Professor: _____

Seu endereço: _____

Eu sou o pai ou protetor legal da criança nomeada acima. Eu recebi e li sua letra a respeito de uma avaliação do professor que está sendo conduzida pela Camara Nacional para Padrões Profissionais do Ensino (NBPTS), e concordei ao seguinte:

(Verifique por favor a caixa apropriada abaixo.)

- ☐ **EU DOU-LHE** a permissão de incluir a imagem da minha criança na videocassette enquanto ou participam em uma classe conduzida em _____ pelo _____ e/ou
(Nome da escola) (Nome do professor)
para reproduzir os materiais que minha criança pode produzir como a parte de atividades da sala de aula. Nenhum último nome aparecerá em todos os materiais submetidos pelo professor.
- ☐ **EU NÃO DOU** a permissão gravar minha criança ou reproduzir os materiais que minha criança pode produzir como a parte de atividades da sala de aula.

Assinatura do pai ou protetor legal: _____ Data: _____

Eu sou o estudante nomeado acima e tenho mais de 18 anos de idade. Eu li e compreendi a descrição do projeto dado acima. Eu compreendo que meu desempenho não está sendo avaliado por este projeto e que meu último nome não aparecerá em nenhuns materiais que puderem ser submetidos.

- ☐ **EU DOU-LHE** a permissão de incluir minha imagem na videocassette enquanto eu participo nesta classe e/ou para reproduzir os materiais que eu posso produzir como a parte de atividades da sala de aula.
- ☐ **EU NÃO DOU** a permissão de gravar-me ou reproduzir os materiais que eu posso produzir como a parte de atividades da sala de aula

Assinatura do estudante: _____ Data: _____

Data de nascimento: ____ / ____ / ____
MM DD YY

УВЕДОМЛЕНИЕ

(для заполнения родителями или опекунами несовершеннолетних школьников, участвующих в программе или школьниками в возрасте старше 18 лет, участвующих в программе)

Уважаемые родители/опекуны :

В этом учебном году я принимаю участие в аттестации, которая проводится для того, чтобы найти выдающихся преподавателей среди учителей с большим стажем работы. В этой программе, которая подготовлена Национальным комитетом по профессиональным образовательным стандартам (NBPTS), я принимаю участие добровольно. Эта аттестация проводится с целью повышения уровня знаний учеников и поощрения мастерства в преподавании.

Для проведения программы необходимо записывать на видеокамеру небольшие отрывки урока в классе Вашего ребенка. Хотя в видеозаписи участвуют не только учитель, но и несколько учеников, основное внимание уделяется не ученикам, а методике преподавания. В процессе видеозаписи Ваш ребенок может попасть в кадр. Кроме того, во время учебного года могут потребоваться образцы письменных работ школьников для оценки моей методики преподавания, и среди образцов может оказаться работа Вашего ребенка.

На отобранных работах фамилий детей не будет. Национальный комитет по профессиональным образовательным стандартам по своему усмотрению сможет использовать и распространять видеозапись(и) моих уроков, мои комментарии и материалы моих уроков в целях оценки, профессионального обучения и проведения исследований, или в любых других целях, которые Национальный комитет по профессиональным образовательным стандартам сочтет необходимым для решения задач, стоящих перед организацией. Для того, чтобы документально подтвердить Ваше согласие, заполните форму, которая прилагается ниже.

С уважением, _____
(Подпись кандидата)

РАЗРЕШЕНИЕ

ФИО школьника: _____ Название школы/ФИО преподавателя: _____

Домашний адрес: _____

Я - родитель (опекун) ребенка, имя которого указано выше. Я получил(а) и ознакомился(ась) с информацией, касающейся аттестации, проводимой Национальным комитетом по профессиональным образовательным стандартам. Я даю согласие на следующее:

(Пожалуйста, отметьте)

- ☐ **Я РАЗРЕШАЮ** делать видеозапись урока с участием моего ребенка в _____, проводимого _____, а также делать копии письменных работ моего ребенка, (название школы) (ФИО преподавателя) сделанных во время урока. На работах, отобранных преподавателем, фамилии учеников не будут указываться.
- ☐ **Я НЕ РАЗРЕШАЮ** записывать на видеокамеру моего ребенка, а также делать копии письменных работ, сделанных моим ребенком на уроке.

Подпись родителя или опекуна: _____ Число: _____

Я - ученик школы, мое имя указано выше и я старше 18 лет. Я прочитал(а) описание проводимой программы и понимаю, в чем она заключается. Я понимаю, что настоящая программа не ставит своей целью оценку моей успеваемости и, что моей фамилии не будет на тех письменных работах, которые могут использоваться.

- ☐ **Я РАЗРЕШАЮ** делать видеозапись урока с моим участием и (или) делать фотокопии письменных работ, выполненных на уроке.
- ☐ **Я НЕ РАЗРЕШАЮ** делать видеозапись урока с моим участием и (или) делать фотокопии письменных работ, выполненных на уроке.

Подпись ученика: _____ Число: _____

Дата рождения: ____/____/____

Месяц Число Год

FORMULARIO DE AUTORIZACIÓN

(Para ser completado por padres o guardianes legales de estudiantes menores que participen en este proyecto, o por estudiantes mayores de 18 años que participen en este proyecto)

Estimados Padres/Guardianes:

Este año escolar soy uno de los participantes en una evaluación para certificar a maestros con experiencia como educadores sobresalientes. Mi participación en esta evaluación, llevado a cabo por el "National Board for Professional Teaching Standards (Comité de Normas Profesionales para la Enseñanza), es voluntaria. Los propósitos principales de esta evaluación son mejorar el aprendizaje de los alumnos y fomentar la excelencia en la enseñanza.

Este proyecto requiere que yo exhiba videos de las lecciones que doy en el grupo de su hijo(a). Aunque en los videos aparecen el maestro y sus estudiantes, la atención se centra en el maestro y su manera de dar clase, no en los estudiantes. Al grabar mi clase, su hijo(a) podría aparecer en el video. También, durante el año, se le puede requerir al maestro que exhiba muestras del trabajo de sus estudiantes como evidencia de su práctica docente. El trabajo de su hijo(a) podría ser incluido en esas muestras.

Los apellidos de los estudiantes no aparecerán en los materiales que se exhiban. El NBPTS, a su entera discreción, puede usar y distribuir mis videgrabaciones, mis comentarios y mis materiales del salón de clase con propósitos de evaluación, desarrollo profesional e investigación, y para cualquier otro propósito que NBPTS considere apropiado para cumplir con la misión de la organización. El formulario siguiente será utilizado para documentar su permiso para estas actividades.

Atentamente,

Firma del (de la) maestro(a)

AUTORIZACIÓN

Nombre del estudiante: _____ Escuela/Maestro(a): _____
Domicilio: _____

Soy el padre/madre/guardián legal del niño/niña mencionado/a arriba. He recibido y leído su carta acerca de una evaluación para maestros que está siendo conducida en nombre del National Board for Professional Teaching Standards (NBPTS), y estoy de acuerdo con lo siguiente:

(Por favor marque abajo en el cuadro correspondiente)

- ☐ **SÍ**, autorizo que se incluya la imagen de mi hijo/hija en videgrabaciones cuando participa en una clase conducida en _____ por _____ y a que
(Nombre de la escuela) (Nombre del maestro/de la maestra)
se reproduzcan materiales de trabajo que mi hijo/hija pueda producir como parte de las actividades de clase. No aparecerán apellidos en ninguno de los materiales presentados por el maestro/la maestra.
- ☐ **NO**, no autorizo que se incluya a mi hijo/hija en videgrabaciones ni que se reproduzcan materiales que mi hijo/hija pueda producir como parte de las actividades de clase.

Firma del padre, madre o guardian: _____ Fecha: _____

Soy el estudiante arriba mencionado y tengo más de 18 años de edad. He leído y entendido la descripción del proyecto mencionado arriba. Entiendo que mi desempeño no será evaluado en este proyecto y que mi apellido no se mencionará en ninguno de los materiales que puedan ser presentados.

(Por favor marque abajo en el cuadro correspondiente)

- ☐ **SÍ**, autorizo a que se incluya mi imagen en videgrabaciones cuando participo en esta clase y a que se reproduzcan materiales de trabajo que pueda producir como parte de las actividades de clase.
- ☐ **NO**, no autorizo a que se me incluya en videgrabaciones o a que se reproduzcan materiales que pueda producir como parte de de las actividades de clase.

Firma del estudiante: _____ **Fecha:** _____

Fecha de nacimiento: _____ / _____ / _____
 Mes Día Año

Spanish

PORMA SA PAGPAPAUBAYA SA MAG-AARAL

(dapat kumpletuhin ng mga magulang/tagapag-alagang legal ng mga menor de edad na mag-aaral na kalahok sa proyektong ito o ng mga mag-aaral na higit sa 18 taon ang edad na kalahok sa proyektong ito)

Mahal na Magulang/Tagapag-alaga:

Ako ay kalahok sa taong ito sa isang pagsusuri na ang layunin ay masertipikahan ang mga bihasang guro bilang mga katangi-tanging propesyonal sa larangan ng pagtuturo. Ang aking paglahok sa pagsusuring ito, na isinasagawa ng National Board for Professional Teaching Standards (NBPTS), ay boluntaryo. Ang pangunahing layunin ng pagsusuring ito ay ang mapabuti ang pag-aaral ng mga estudyante at himukin ang kagalingan sa pagtuturo.

Ang proyektong ito ay nangangailangan ng pagsusumite ng mga maiikling videotape ng mga aralin na itinuro sa klase ng inyong anak. Bagaman ang mga videotape ay kinalalahukan ng guro at iba pang mga mag-aaral, ang pangunahing pokus nito ay ang pagtuturo ng guro at hindi and mga estudyante sa klase. Sa proseso ng pagrerekord, ang inyong anak ay maaaring makasama sa videotape. Bukod pa dito, sa loob ng isang taon ay maaari akong mapag-utusan na magsumite ng mga halimbawa ng mga gawa ng mga mag-aaral bilang katibayan sa pagsasagawa ng pagtuturo, at ang mga halimbawang ito ay maaaring kabilangan ng mga gawa ng inyong anak.

Walang apelyido ng mag-aaral ang lilitaw sa alin mang mga halimbawa na isusumite sa NBPTS, na siya lamang may tanging karapatan na gumamit at magpakalat ng mga videotape, ng aking mga komentaryo at mga kagamitang pang-silid-aralan para sa pagsusuri, propesyonal na pagsulong, at panananaliksik at ano pa mang mga layuning karapat-dapat sa pananaw ng NBPTS sa pagsusulong ng misyon ng organisasyon. Ang pormang ito ay gagamitin upang isadokumento ang inyong pagpayag sa mga gawaing ito.

Gumagalang, _____
(Pirma ng Kandidato)

KATIBAYAN NG PERMISO

Estudyante: _____ Paaralan/Guro: _____

Tirahan: _____

Ako ang magulang/tagapag-alagang legal ng mag-aaral na pinapangalanan sa itaas. Natanggap ko at nabasa ang inyong sulat tungkol sa isang pagsusuri ng mga guro na isinasagawa ng NBPTS, at ako ay pumapayag sa mga sumusunod:

(Pakilagyan po ng ekis ang wastong kahon sa ibaba.)

- ☐ **PUMAPAYAG AKO na isali ang imahen ng aking anak/alaga sa** videotape habang siya ay lumalahok sa klaseng ginaganap sa _____ ni _____ at/o _____
(Paaralan) (Guro)
- kopyahin ang mga materyal na maaaring likhain ng aking anak/alaga bilang bahagi ng mga gawain sa silid aralan. Walang apelyido ang lilitaw sa alin mang mga materyal na isusumite ng guro.
- ☐ **HINDI AKO PUMAPAYAG** na isa-videotape ang aking anak/alaga o kopyahin ang mga materyal na maaaring likhain ng aking anak/alaga bilang bahagi ng mga gawain sa silid-aralan.

Pirma ng Magulang o Tagapag-alaga: _____ Petsa: _____

Ako ang mag-aaral na pinapangalanan sa itaas at ako ay mahigit na sa 18 taon ang gulang. Nabasa ko at naunawaan ang deskripsiyon ng proyektong isinasaad sa itaas. Nauunawaan ko na hindi ang aking paggawa ang sinusuri sa proyektong ito at ang aking apelyido ay hindi lilitaw sa alin mang mga materyal na isusumite.

- ☐ **PUMAPAYAG AKO** na isali ang aking imahen sa videotape habang ako ay lumalahok sa klaseng ito at/o kopyahin ang mga materyal na maaari kong likhain bilang bahagi ng mga gawain sa silid-aralan.
- ☐ **HINDI AKO PUMAPAYAG** na isa-videotape ako at kopyahin ang mga materyal na maaari kong likhain bilang bahagi ng mga gawain sa silid-aralan.

Pirma ng Mag-aaral: _____ Petsa: _____

Araw ng kapanganakan: _____ / _____ / _____
BB AA TT

طالب علم کی حوالگی کا فارم

(اس پروجیکٹ میں شریک نابالغ طلباء، کے والدین / قانونی سرپرستوں یا اس پروجیکٹ میں شریک 18 سال سے زیادہ عمر کے طلباء، کی طرف سے مکمل کیے جانے کے لیے)

عزیز والدین / سرپرست:

میں اس تدریسی سال میں ایک ایسی تشخیص میں شریک ہوں جس کا مقصد تدریس کے نمایاں پیشم ور کی حیثیت سے تجربہ کار اساتذہ کی تصدیق کرنا ہے۔ قومی مجلس برائے پیشم ورائے تدریسی معیارات کی طرف سے انجام دئے جانے والی اس تشخیص میں میری شرکت رضاکارانہ ہے۔ اس تشخیص کے بنیادی مقاصد طالب علم کی آموزش میں اضافہ کرنا اور تدریس میں فضیلت کی حوصلہ افزائی کرنا ہے۔ اس پروجیکٹ کے لیے ضروری ہے کہ آپ کے بچے کی کلاس میں پڑھائے جانے والے اسباق کے مختصر ویڈیو ٹیپ جمع کیے جائیں۔ اگرچہ ان ویڈیو ٹیپوں میں استاد اور مختلف طلباء کی شرکت درکار ہے خصوصی تاکید استاد کے طریقہ تدریس پر ہوتی ہے نہ کہ کلاس میں موجود طلباء پر۔ ٹیپ کاری کے عمل کے دوران آپ کے بچے کو ویڈیو ٹیپ میں دکھایا جا سکتا ہے۔ اور یہ بھی کہ سال کے دوران وقتاً فوقتاً مجھ سے تدریسی مشق کے ثبوت کے طور پر طالب علم کے انجام دئے گئے کام کے نمونے جمع کرنے کے لیے کہا جا سکتا ہے اور یہ کہ اس کام میں آپ کے بچے کا کچھ کام شامل ہو سکتا ہے۔

جمع کیے جانے والے کسی بھی مواد پر کسی طالب علم کا آخری نام ظاہر نہیں ہونے پائے گا۔ قومی مجلس برائے پیشم ورائے تدریسی معیارات کو پورا اختیار ہے کہ وہ میرے ویڈیو ٹیپس، میری آراء اور میرے کلاس روم کا مواد تشخیص پیشم ورائے ترقی اور تحقیقی مقاصد اور تنظیم کے مقصد کے فروغ کے لیے، قومی مجلس برائے پیشم ورائے تدریسی معیارات کے نزدیک موزوں کسی دیگر مقصد کے لیے استعمال اور تقسیم کرے۔ ذیل میں دیا گیا فارم ان اعمال کی انجام دہی کے لیے آپ کی اجازت کو دستاویزی شکل کے طور پر استعمال کیا جائے گا۔

مخلص،

(امید وار کے دستخط)

منظوری کی پرچی

طالب علم کا نام: _____ اسکول / استاد: _____
آپ کا پتہ: _____

میں مذکورہ بالا طالب علم کا باپ / ماں / قانونی سرپرست ہوں۔ میں نے قومی مجلس برائے پیشم ورائے تدریسی معیارات (این بی پی ٹی ایس) کی طرف سے انجام دی جانے والی تشخیص اساتذہ سے متعلق آپ کا مراسلہ وصول کر لیا ہے اور اسے پڑھ لیا ہے: (براہ کرم نیچے دئے گئے موزوں خانے میں نشان لگائیں)

- ☐ میں آپ کو اجازت دیتا / دیتی ہوں کہ آپ _____ معرفت _____ کی طرف سے چلائی جانے (استاد کا نام) (اسکول کا نام)
- والی کلاس میں اپنے بچے کی شرکت کے دوران اس کی تصویر ویڈیو ٹیپ میں شامل کر سکتے ہیں اور / یا میرا بچہ کلاس روم کی سرگرمیوں کے ضمن میں جو چیزیں بنا سکتا ہو ان کی نقل لے سکتے ہیں۔ استاد کی طرف سے داخل کیے گئے کسی مواد میں میرے بچے کا آخری نام ظاہر نہیں ہوگا۔
- ☐ میں اپنے بچے کا ویڈیو ٹیپ بنانے یا میرا بچہ کلاس روم کی سرگرمیوں کے ضمن میں جو چیزیں بنا تا ہو انہیں نقل کرنے کی اجازت نہیں دیتا ہوں۔

والدین یا سرپرست: _____ تاریخ: _____

میں وہی طالب علم ہوں جس کا نام اوپر درج ہے اور میری عمر 18 سال سے زیادہ ہے۔ میں نے پروجیکٹ سے متعلق مندرجہ بالا وضاحت پڑھ لی ہے اور میں اسے سمجھتا ہوں۔ میں یہ سمجھتا ہوں کہ اس پروجیکٹ کے ذریعے میری کارکردگی کی قدر پیمائی نہیں کی جا رہی ہے اور یہ کہ داخل کیے جانے والے کسی مواد پر میرا نام ظاہر نہیں ہوگا۔

- ☐ میں اس کلاس میں شرکت کے دوران ویڈیو ٹیپ میں اپنی تصویر شامل کرنے اور / یا کلاس روم کی سرگرمیوں کے ضمن میں جو چیزیں میں بنا سکوں انہیں نقل کرنے کی اجازت آپ کو دیتا ہوں۔
- ☐ میں اپنا ویڈیو ٹیپ بنانے یا کلاس روم کی سرگرمیوں کی ضمن میں جو چیزیں میں بنا سکوں انہیں نقل کرنے کی اجازت آپ کو نہیں دیتا۔

طالب علم کے دستخط: _____ تاریخ: _____

تاریخ پیدائش: _____ / _____ / _____
ماہ دن سال

MẪU TIẾT LỘ VỀ HỌC SINH

(Cha mẹ hoặc người giám hộ của học sinh phải điền vào cho các em học sinh dưới tuổi vị thành niên có tham gia trong chương trình này, hoặc học sinh nào lớn hơn 18 tuổi có tham gia trong chương trình phải điền vào)

Thưa quý vị Phụ Huynh/Người Giám Hộ:

Tôi là người tham gia vào việc đánh giá trong niên học này để xác nhận các giáo viên kinh nghiệm là những nhà giáo xuất sắc. Việc tham gia của tôi trong cuộc đánh giá này, được tổ chức bởi Ủy Ban Quốc Gia về các Tiêu Chuẩn Giảng Dạy Chuyên Môn (National Board for Professional Teaching Standards-NBPTS), là tự nguyện. Mục đích chính của cuộc đánh giá này là để nâng cao khả năng học tập của học sinh và khích lệ sự giảng dạy tối ưu.

Chương trình này đòi hỏi phải nộp lên các cuốn băng ghi hình sơ lược về các bài học dạy trong lớp của con quý vị. Mặc dù các cuốn băng này có cả giáo viên lẫn các em học sinh khác nhau, mục tiêu chính là nhằm vào việc giảng dạy của giáo viên, chứ không phải là học sinh trong lớp. Trong lúc thu hình, con quý vị sẽ xuất hiện trong cuốn băng này. Ngoài ra, thỉnh thoảng trong năm, tôi được yêu cầu nộp lên các mẫu bài tập của học sinh để làm bằng chứng về việc giảng dạy, và trong các bài tập đó có thể có một số lá của con quý vị.

Sẽ không có họ của học sinh trên bất cứ tài liệu nào được nộp lên. Ủy Ban Quốc Gia về các Tiêu Chuẩn Giảng Dạy Chuyên Môn (NBPTS), theo sự tùy tiện của họ, có thể dùng và phân phối (các) cuốn băng ghi hình của tôi, các bình phẩm và các tài liệu trong lớp học của tôi cho các mục đích đánh giá, phát triển và nghiên cứu chuyên môn, và cho bất cứ mục đích nào khác mà Ủy Ban Quốc Gia về các Tiêu Chuẩn Giảng Dạy Chuyên Môn (NBPTS) thấy là thích hợp để đẩy mạnh nhiệm vụ của tổ chức. Mẫu đơn dưới đây sẽ được dùng để ghi lại sự cho phép của quý vị đối với các hoạt động này.

Thân ái, _____
(Chữ ký của đương đơn)

GI•Y CHO PHÉP

Tên học sinh: _____ Trường/Giáo Viên: _____

Địa chỉ của quý vị: _____

Tôi là phụ huynh/người giám hộ hợp pháp của trẻ có tên nêu trên. Tôi đã nhận và đọc thư của quý vị về việc đánh giá giáo viên được tổ chức bởi Ủy Ban Quốc Gia về các Tiêu Chuẩn Giảng Dạy Chuyên Môn (NBPTS), và đồng ý như sau:

(Xin vui lòng đánh dấu vào các ô thích hợp dưới đây.)

- ☐ **Tôi CÓ** cho phép quý vị để hình của con tôi vào cuốn băng ghi hình trong lúc em đang tham dự trong lớp học được tổ chức tại _____ bởi _____ và/hoặc để tái tạo các tài liệu mà con tôi có thể đã _____
(Tên trường) (Tên giáo viên)
làm ra trong các sinh hoạt của lớp học. Sẽ không có họ của con tôi trên bất cứ tài liệu nào được nộp lên bởi giáo viên.
- ☐ **Tôi KHÔNG** cho phép quay phim con tôi hoặc tái tạo các tài liệu mà con tôi có thể đã làm ra trong các sinh hoạt của lớp học.

Chữ ký của Phụ Huynh hoặc Người Giám Hộ: _____ Ngày: _____

Tôi là học sinh có tên nêu trên và lớn hơn 18 tuổi. Tôi đã đọc và hiểu chương trình nêu trên. Tôi hiểu rằng thành tích học tập của tôi sẽ không được đánh giá bởi chương trình này và họ của tôi sẽ không xuất hiện trên bất cứ tài liệu nào có thể đã được nộp.

- ☐ **Tôi CÓ** cho phép quý vị để hình của tôi vào cuốn băng ghi hình trong lúc tôi tham dự trong lớp học này và/hoặc tái tạo các tài liệu mà tôi có thể đã làm ra trong các sinh hoạt của lớp học.
- ☐ **Tôi KHÔNG** cho phép quay phim tôi hoặc tái tạo các tài liệu mà tôi có thể đã làm ra trong các sinh hoạt của lớp học.

Chữ ký của học sinh: _____ Ngày: _____

Ngày sanh: ____/____/____
Tháng Ngày Năm