

Name: _____
Hour: _____ Date: _____

Chemistry: *Chapter 5 Study Questions*

1. Why do atoms form chemical bonds?
2. Explain how the octet rule predicts the stability or reactivity of atoms.
3. When atoms bond, what happens to their: ...stability? ...energy?
4. What is bond energy?
5. Describe how an atom becomes: ...positively charged. ...negatively charged.
6. What group of elements have a stable octet in their natural state?
7. Define *ion*, *anion*, and *cation*. Describe how anions and cations are formed.
8. All salts are held together by what type of bonds?
9. List some physical and chemical properties that all salts share.
10. Describe the energy changes an atom experiences if electrons are:
 ...added to the atom.
 ...taken away from the atom
11. List some differences between metals and salts.
12. Explain how metallic bonding gives metals their unique properties.
13. Explain why the ionization energy needed to remove *the next* electron from an atom increases with each electron that is removed.
14. What are hydrates and what are they used for?