Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

***Chemistry: Unit 2 Matter and Energy Test Review***  Hr\_\_\_\_\_\_ Date\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What do we mean by the *composition* of matter?
2. What is the difference between *mass* and *weight*?
3. About how many different types of *atoms* are there? about how many types of *elements*? …*molecules*? …*compounds*?
4. Zinc oxide (ZnO) is 80.3% zinc (Zn) and 19.7% oxygen (O). How many grams of each of these elements are there in a 75 g sample of ZnO?
5. List 2 differences between a compound and a mixture.
6. Give 1 example of each of the following: alloy suspension

solution

1. By what means can we separate mixtures? What NEVER happens while a mixture is being separated? What about the different substances in a mixture allows us to separate these substances?
2. List 5 different methods of separating mixtures.
3. The density of salt is 2.164 g/cm3. If a cube of salt has a mass of 54 g, what is the length of one side of the cube (in cm)?
4. What is the difference between extensive and intensive properties? Chemical v. physical? Consider density as an example. Classify it as extensive/intensive and chemical/physical.
5. When ice melts, has a *chemical* or *physical* change occurred? Justify your answer.
6. Classify the following as *exothermic* or *endothermic* changes. What is the difference?

freezing melting boiling

cold pack burning condensation

1. What do we call the minimum amount of energy needed to start a chemical reaction?

14. What does the Law of Conservation of Energy state?

15. How many atoms of lead (Pb) are in 78.5 g of lead?