



Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Matter and Change Review #1

Compare and contrast the following pairs of words:

1. Mass: \_\_\_\_\_

Volume: \_\_\_\_\_

2. Atom: \_\_\_\_\_

Molecule: \_\_\_\_\_

3. Compound: \_\_\_\_\_

Mixture: \_\_\_\_\_

4. Solid: \_\_\_\_\_

Liquid: \_\_\_\_\_

Gas: \_\_\_\_\_

**Vocabulary Review: Give the term that matches each statement.**

\_\_\_\_\_ 5. A combination of two or more substances that are not chemically combined.

\_\_\_\_\_ 6. Anything that has mass and occupies space.

\_\_\_\_\_ 7. A measure of the amount of matter.

\_\_\_\_\_ 8. A mixture with uniform characteristics throughout.

\_\_\_\_\_ 9. A pure substance made of only one kind of atom.

\_\_\_\_\_ 10. The amount of three-dimensional space an object occupies.

\_\_\_\_\_ 11. A measure of the gravitational pull on matter.

\_\_\_\_\_ 12. A mixture that has parts with different compositions.

\_\_\_\_\_ 13. Two or more elements chemically combined.

**Classify each of the following as an element, compound or mixture:**

- \_\_\_\_\_ 14. Helium
- \_\_\_\_\_ 15. Water
- \_\_\_\_\_ 16. Sodium
- \_\_\_\_\_ 17. A sedimentary rock
- \_\_\_\_\_ 18. Salt
- \_\_\_\_\_ 19. Air

**Classify each of the following as a homogeneous or a heterogeneous substance:**

- \_\_\_\_\_ 20. Salt
- \_\_\_\_\_ 21. Milk
- \_\_\_\_\_ 22. Oil and vinegar salad dressing
- \_\_\_\_\_ 23. Air
- \_\_\_\_\_ 24. Iron ore
- \_\_\_\_\_ 25. An energy bar such as a granola bar.

26. Using small circles to represent atoms or molecules, fill in each square below to show the arrangement of particles in solids, liquids, and gases.



**Solid**



**Liquid**



**Gas**

27. What is meant by a “change in state”? Explain. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

28. List two ways that mixtures are distinguished from compounds.
- a) \_\_\_ Mixtures can be heterogeneous or homogeneous. Compounds are always the same if they are of the same type. \_\_\_\_\_  
\_\_\_\_\_
- b) \_\_\_\_\_ Physically separated. \_\_\_\_\_  
\_\_\_\_\_
29. List five methods of separating mixtures into their individual components. \_\_\_\_\_  
\_\_\_\_\_
30. Describe how you would go about separating a mixture of sand and salt. \_\_\_ Make a solution with the salt and water by adding water to dissolve the salt. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
31. Why is weight an unreliable way to measure a quantity of matter? \_Weight can change based off of gravity. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
32. Make a concept map that includes the following terms or phrases: Homogeneous, compound, matter, element, chemically combined, mixture, pure substance, not chemically combined, heterogeneous.

