#### \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_

# **Study Guide: Matter/Physical Chemical Change**

**Vocabulary: Matching** 

- 1. Density
- F 2. Volume
- E3. Liquid
- **J**4. Mass
- **G** 5. Physical change
- A 6. Weight
- H 7. gas
- **B** 8. condensation
- **D** 9. matter
- **C**10. solid

## **Vocabulary:** Matching

- P 11. Chemical change
- **S** 12. temperature
- **K**13. element
- **R** 14. mixture
- N15. Atom
- **Q**16. Compound
- L 17. Law of Conservation of Mass
- **T** 18. gravity
- O19. molecule
- M 20. Periodic Table

- a. pull of gravity on matter
- b. changing from a gas to a liquid
- c. state of matter with definite: shape and volume
- d. anything that has mass and takes up space
- e. state of matter with definite volume but no definite shape
- f. amount of space anything occupies
- g. occurs when a substance remains the same but its physical properties are different
- h. has no definite shape or volume; its particles move very fast
- mass per unit of volume i.
- i. amount of matter in an object



- k. made up of only one kind of atom
- I. states that an object is the sum of its parts
- m. arrangement of elements by similar properties
- n. smallest unit of an element with all the properties of the element
- o. two or more atoms joined together
- p. occurs when a new substance is formed and usually is associated with some type of heat or burning
- q. when two or more elements are combined together chemically
- r. Formed when two or more substances do not change when they are mixed together
- s. Uses a thermometer to measure how fast molecules are moving in a substance
- t. the attraction that Earth has on an object



## Fill in the Blank:

1. What are the phases of matter?

### SOLID , LIQUID, GAS, PLASMA

- 2. Freezing Point is: Point at which water freezes
- a.) Celsius: 0°C
- b.) Fahrenheit: 32°F
- 3. Describe an atom and what 3 particles make up an atom:

# An atom is the smallest unit of matter. Made up of: Protons (positive charged/ (+)\_), Electrons (negative charged (-)), Neutrons (No Charge)

- 4. Boling Point is: Point at which water boils
- a.) Celsius: 100°C
- b.) Fahrenheit: 212°F
- 5. Describe the characteristics of a:

Solid	Liquid	Gas	Plasma
*definite shape/volume	*No definite shape but	*No definite Shape/Volume	*A gas that
*vibrate in place	has definite volume	*Move very fast and do not	moves very, very
	*slide past each other	touch	fast. Ex: lightening
	and close enough to touc	h	

6. What causes the changes in the state of water? What type of change occurs: Chemical or Physical? Choose one

#### Temperature causes changes in the state of water.

### 7. Can matter be created or destroyed? Explain answer:

#### NO, matter can NEVER be CREATED or DESTROYED

8. Complete the Following Chart:

Unit	Measures	Instrument
Liters	volume	Graduated cylinder
meters	Distance	Meter stick
Degrees	temperature	thermometer
grams	mass	triple beam balance