Name: _____ Period:_____

Physical Science
Ch. 2/3 Homework Packet

2.1 Physical and Chemical Properties

Examples of Physical Properties (pages 45–47)

1. A physical property is any characteristic of a material that can be observed or measured without changing the _____ of the substances in the material.

Match each term to its definition

Term	Definition
_____ **2.** viscosity	a. The ability of a solid to be hammered without shattering
_____ **3.** conductivity	b. The temperature at which a substance changes from a liquid to a gas
_____ **4.** malleability	c. The resistance of a liquid to flowing
_____ **5.** melting point	d. The ability to allow heat to flow
_____ **6.** boiling point	e. The ratio of the mass of a substance to its volume
_____ **7.** density	f. The temperature at which a substance changes from a solid to a liquid

Recognizing Chemical Changes (pages 56–57)

8. A(n) _____ change occurs when a substance reacts and forms one or more new substances.

9. Circle the letters of examples of evidence for a chemical change.

a. a change in color
b. a filter trapping particles
c. the production of a gas
d. the formation of a solid precipitate

Match each example to evidence of a chemical change.

Example	Chemical Change
_____ **10 .**Lemon juice is added to milk.	a. the production of a gas
_____ **12 .**A silver bracelet darkens when exposed to air.	b. the formation of a precipitate
_____ **13 .**Vinegar is mixed with baking soda.	c. a change in color

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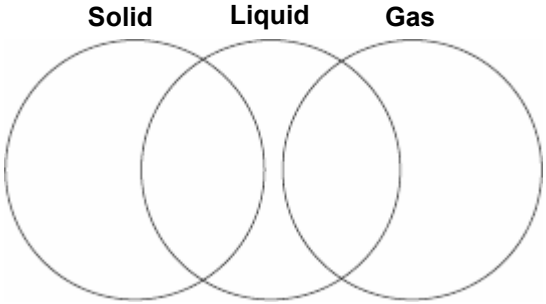
2.2-States of Matter

Reading Strategy (page 68)

Comparing and Contrasting As you read about the states of matter, place each of the following phases in the diagram below: *definite volume, definite shape, variable volume,* or *variable shape.* For more information on this Reading Strategy



Describing the States of Matter (pages 68–70)

1. What are three common states of matter?

a. _____ b. _____ c. _____

2. Complete the table about states of matter.

States of Matter		
State	**Shape**	**Volume**
	Definite	
Liquid		
		Not definite

Kinetic Theory (page 71)

3. Describe kinetic energy. _____

_____

4. Circle the letter of the phrase that describes all particles of matter in the kinetic theory of matter.

a. randomly arranged
b. constant temperature
c. in constant motion
d. orderly arrangement

Explaining the Behavior of Gases, Liquids and Solids (pages 72–74)

5. Because of the random motion of the particles in a gas, the gas has a definite shape and volume. _____

6. Circle the letter of each factor that affects the behavior of liquids.

a. fixed location of particles
b. constant motion of particles
c. orderly arrangement of particles
d. forces of attraction among particles

7. Solids have a(n) _____ volume and shape because particles in a solid vibrate in _____ locations.

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2.3 Conservation of Mass page 193

1. If you burn 1000 grams of wood how many total grams of smoke, ash, charcoal (and everything else left over) will you have?

2. You mix 10 grams of hydrochloric acid with 10 grams of sodium hydroxide (a strong base), how many grams will you end up with?

3. **In your own words**, write what the Law of Conservation of Mass.

4. Give an example from your own life of the Law of Conservation of Mass (like the charcoal example in the book)

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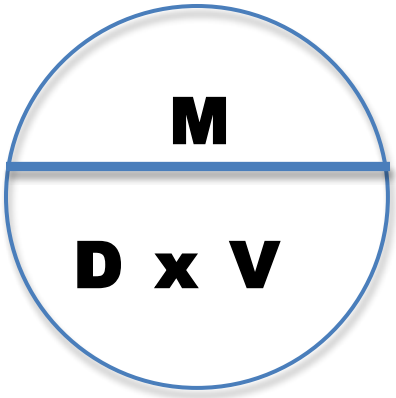
2.4 Density Page 17

Calculate the unknown quantity - show your work:



1. Mass = 30 kg Volume = 10 mL Density = ?

2. Mass = 100 kg Volume = 5 mL Density = ?

3. Mass = ? Volume = 2 mL Denisity = 40 kg/mL

4 Mass = ? Volume = 5 mL Desnity = 100 kg/mL

5. Mass = 35 kg Volume = ? Density = 7 kg/mL

6. Mass = 1000 kg Volume = ? Density = 100 kg/mL

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