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

**10 .** Lemon juice is  
added to milk.

**12 .** A silver bracelet  
darkens when  
exposed to air.

**13 .** Vinegar is mixed  
with baking soda.**Chemical Change**

a. the production of a gas

b. the formation of a precipitate

c. a change in color

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**2.2-States of Matter**

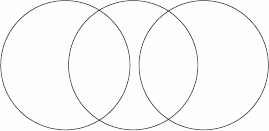
**Reading Strategy (page 68)**

**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

**Gas**

**Liquid**

**Solid**



**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

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d. forces of attraction among particles

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

**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:**

**M**

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

**D x V**

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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