How Can Materials Be Identified?

Main Idea Physical and chemical properties are characteristics used to describe, identify, and classify matter.

Fill in the blanks.

1. A characteristic that can be measured or detected by the senses is called a(n) _____ _____.
2. A(n) _____ __ is the ability of a material to change its chemical makeup.
3. Mass is a measure of the amount of _____ __ in an object or material.
4. Cubic centimeters (cm^3), liters (L), and milliliters (mL) are units used to measure ____ __, or the amount of space a sample of matter takes up.
5. Pure water has a(n) _____ __, or mass per unit volume, of 1 g/mL.
6. The temperature at which a solid substance changes to a(n) _____ __ substance is known as the melting point.
7. The boiling point of a substance is the temperature at which it changes from a liquid to a(n) ___ _.
8. The measure of how much of one substance can dissolve another substance is called ____ ____.
9. _____ _____ is the ability of a material to carry energy.
10. Electrical conductivity refers to carrying electricity, and ___ __ conductivity refers to carrying heat.

LIVEWORKSHEETS

How Does Matter Change?

Main Idea Changes in matter can be classified as physical changes or chemical changes. A chemical change involves a change in the identity of the matter, whereas a physical change does not.

Match each definition to its term.

Definitions

___ **1.** a change in size, shape, or state in which no new substances are formed

___ **2.** a change in which new substances are formed

___ **3.** a specific example of a chemical change, such as the rusting of iron

___ **4.** a substance that speeds up a chemical reaction but is not changed by the reaction

___ **5.** the amount of matter remains the same during a chemical or physical change

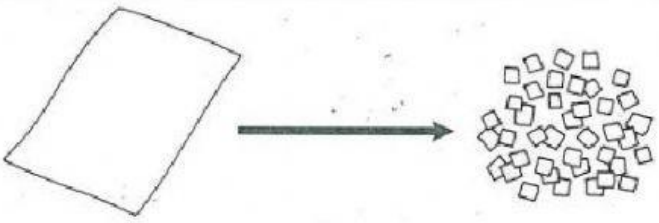
Terms

a. chemical change
b. catalyst
c. chemical reaction
d. conservation of matter
e. physical change

Use the drawings below to answer the question.

6. What kind of change in matter is shown?

a. chemical
b. physical



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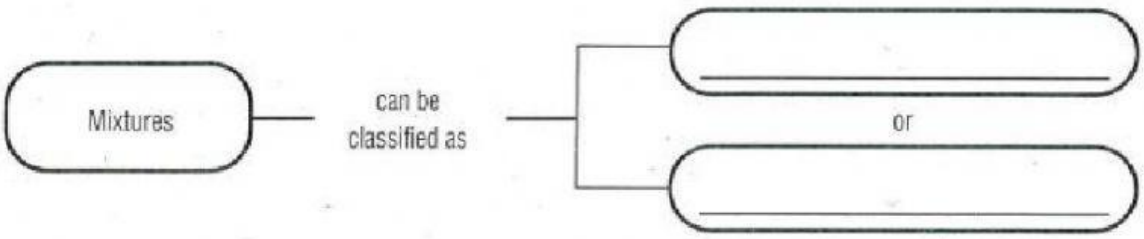
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Fill in the blanks with the correct terms.

1. A(n) _____ ___ is a physical combination of two or more substances.

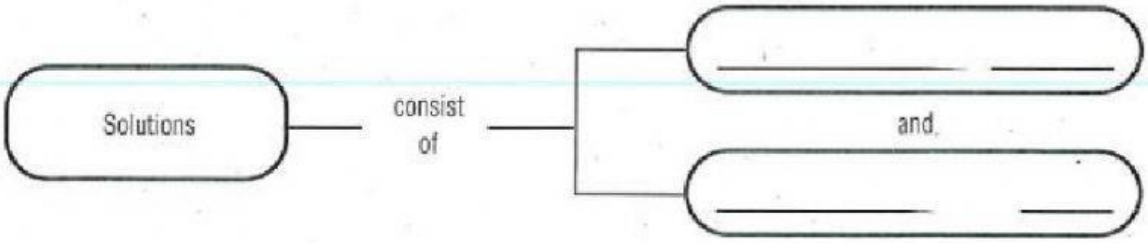
2. Complete the following diagram.



3. Each part of a mixture keeps its original _____.

4. Unlike a compound, the composition of a mixture can _____.

5. Complete the following diagram.



6. Because the substances of a solution are evenly distributed throughout the mixture, a solution is said to be ___ _____.

7. The substance being dissolved in a solution is called the ___.

8. An alloy is a mixture of two or more _____ ___.

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