

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.

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

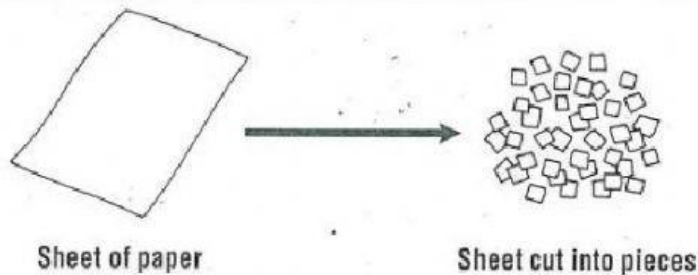
Terms

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

Use the drawings below to answer the question.

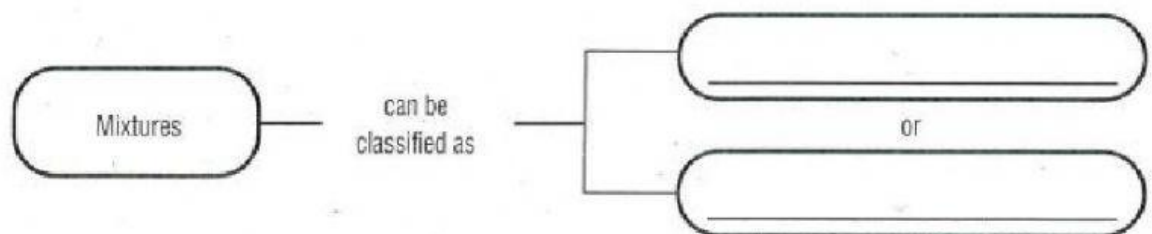
6. What kind of change in matter is shown?

- a. chemical
- b. physical

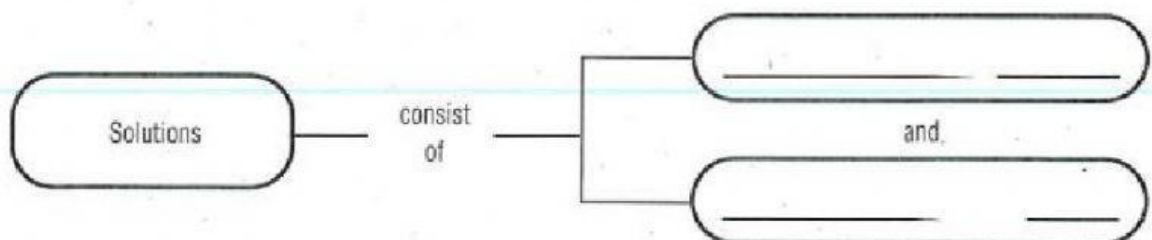


Fill in the blanks with the correct terms.

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 _____.

