



Overview

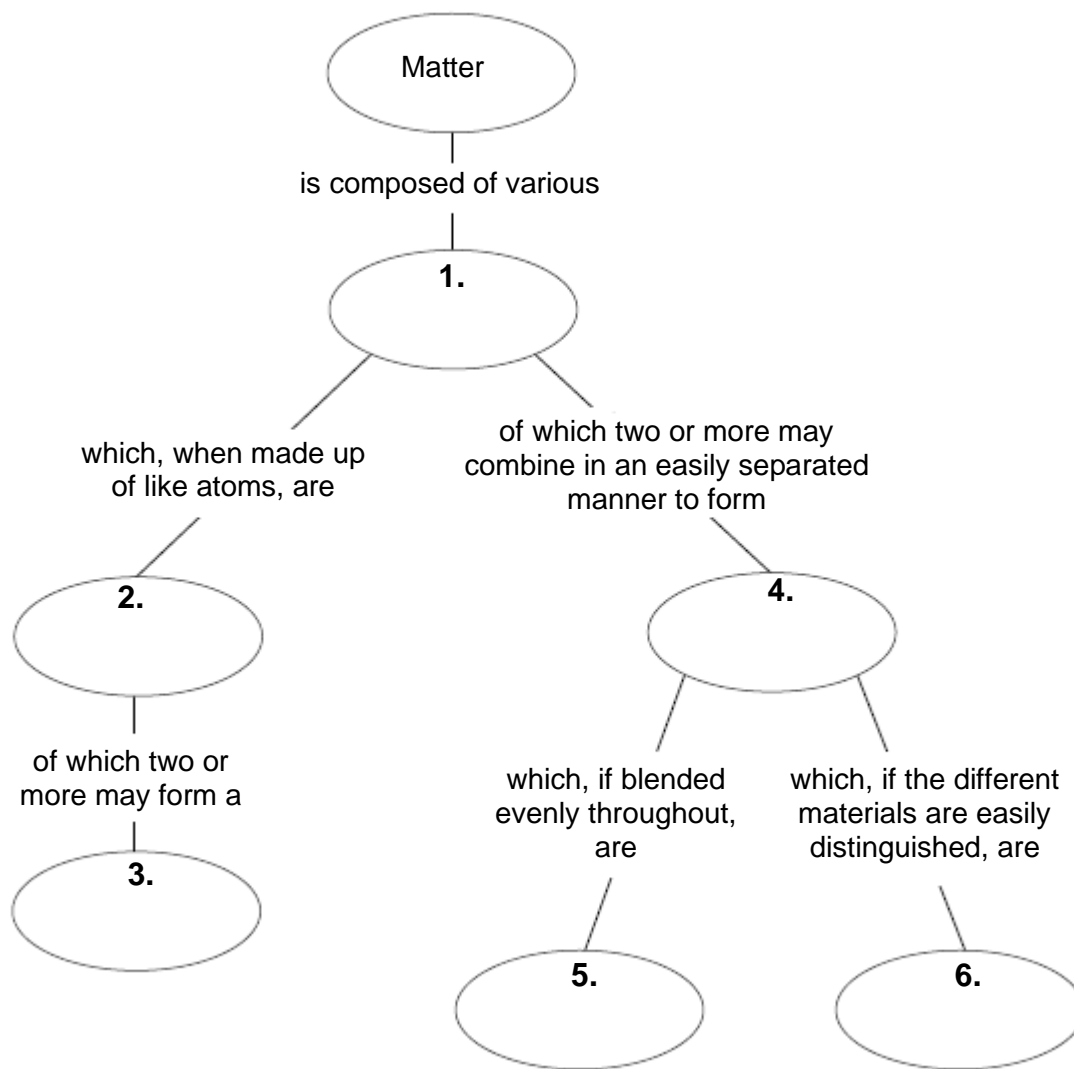
Classification of Matter

Directions: Complete the concept map using the terms in the list below.

**heterogeneous
compound**

**elements
substances**

**homogeneous
mixtures**



Directions: Circle the term in parentheses that makes each statement correct.

7. A beam of light is (visible, invisible) as it passes through a solution, but (can, cannot) be seen as it passes through a colloid.
8. Appearance and behavior are (chemical, physical) properties.
9. The change of one substance to another is a (chemical, physical) change.
10. When substances go through a chemical change, mass is always (gained, lost, conserved).

**Directed Reading for
Content Mastery**

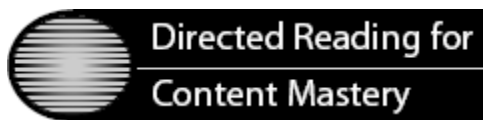
Section 1 • Composition of Matter

Directions: Choose the correct category from the list for each item. Each category will be used more than once.

- | | |
|---------------------------------|--------------------------|
| _____ 1. chalk | a. element |
| _____ 2. copper | b. compound |
| _____ 3. granite | c. suspension |
| _____ 4. vinegar | d. heterogeneous mixture |
| _____ 5. pond water | e. homogeneous mixture |
| _____ 6. water | f. colloid |
| _____ 7. salt | |
| _____ 8. permanent press fabric | |
| _____ 9. soft drink | |
| _____ 10. paint | |
| _____ 11. gold | |
| _____ 12. a river delta | |
| _____ 13. fog | |
| _____ 14. gelatin | |
| _____ 15. lead | |

Directions: Complete the sentences by writing the letters of the correct terms on the lines provided.

- | | |
|---|-------------|
| _____ 16. All substances are built from _____. | |
| a. elements | c. metal |
| b. atom | d. salt |
| _____ 17. A beam of light can be seen as it passes through a(n) _____. | |
| a. colloid | c. element |
| b. solution | d. compound |
| _____ 18. A _____ is a homogenous mixture of particles so small they cannot be seen and will not settle to the bottom of their container. | |
| a. colloid | c. element |
| b. solution | d. compound |



Section 2 . Properties of Matter

Directions: Complete the paragraphs using the terms listed. Some terms may be used more than once.

liquid physical change chemical change mixture
physical properties physical property distillation
equals melting conservation of mass

Scientists try to explain how changes in substances take place. By applying energy, you can tear a sheet of paper into pieces and cause a **1.** _____
_____ in the paper. On a hot summer day, water vapor will condense into water droplets on the outside of a glass of iced tea. The glass of iced tea is a **2.** _____ of sugar, tea, lemon, and water. Water is a clear, colorless **3.** _____ at room temperature. The words clear and colorless describe two **4.** _____
_____ of water. The melting of the ice in iced tea is a **5.** _____
_____.

In comparison, a **6.** _____
_____ produces new substances. When a candle burns, physical and chemical changes take place. The **7.** _____ of the wax is a physical change. The wick, as it burns, combines with gaseous oxygen in air. After the chemical change, water vapor and carbon dioxide gas are formed. The mass of all substances before a chemical change **8.** _____ the mass of all substances after a chemical change. This is called the law of **9.** _____
_____.

To separate a solid from a liquid, such as salt from seawater, a process using the **10.** _____ of boiling point called **11.** _____ is used.



Directed Reading for
Content Mastery

Key Terms

Classification of Matter

Directions: Unscramble the terms in each of the following statements. Write the term in the blanks at the left of the statements and then circle the term in the word search puzzle.

- _____ 1. A(n) *ethgnesuoereo* mixture has different materials that can be easily distinguished.
- _____ 2. A homogeneous mixture with particles so small they cannot be seen without a microscope is a(n) *tuolsion*.
- _____ 3. A(n) *ssinnopseu* is a liquid heterogeneous mixture in which visible particles settle.
- _____ 4. A(n) *ooudnmpc* is a material made from atoms of two or more combined elements.
- _____ 5. If all the atoms in a sample of matter are alike, that kind of matter is a(n) *neemetl*.
- _____ 6. A(n) *oogosuenehm* mixture has two or more substances blended evenly throughout.
- _____ 7. The scattering of light by colloids and suspensions is called the *lyTdnal* effect.
- _____ 8. Size, shape, and melting point are *hsypialc* properties.
- _____ 9. A burnt object has undergone a *aheicmcl* change.
- _____ 10. The law of *ionrtcvaeson* of mass states that mass is not gained or lost during chemical changes.

B	H	H	E	T	E	R	O	G	E	N	E	O	U	S	N
T	E	O	P	P	R	O	L	O	N	Z	H	C	O	I	O
N	P	M	I	H	M	Q	L	L	N	C	Y	H	I	C	I
R	O	O	C	O	M	P	O	U	N	D	D	E	O	P	S
O	C	G	O	P	E	T	I	M	C	E	R	M	G	H	N
C	S	E	S	A	T	R	D	E	L	M	P	I	M	Y	E
C	O	N	S	E	R	V	A	T	I	O	N	C	S	S	P
E	R	E	L	E	M	E	N	T	U	L	E	A	C	I	S
G	T	O	O	I	S	T	Y	N	D	A	L	L	I	C	U
I	C	U	M	C	A	T	D	M	C	R	Y	M	S	A	S
E	E	S	O	L	U	T	I	O	N	L	I	B	Y	L	I