

# HOMOGENEOUS VS. HETEROGENEOUS MATTER

Name \_\_\_\_\_

Classify the following substances and mixtures as either homogeneous or heterogeneous. Place a ✓ in the correct column.

**HOMOGENEOUS**                      **HETEROGENEOUS**

1. flat soda pop

2. cherry vanilla ice cream

3. salad dressing

4. sugar

5. soil

6. aluminum foil

7. black coffee

8. sugar water

9. city air

10. paint

11. alcohol

12. iron

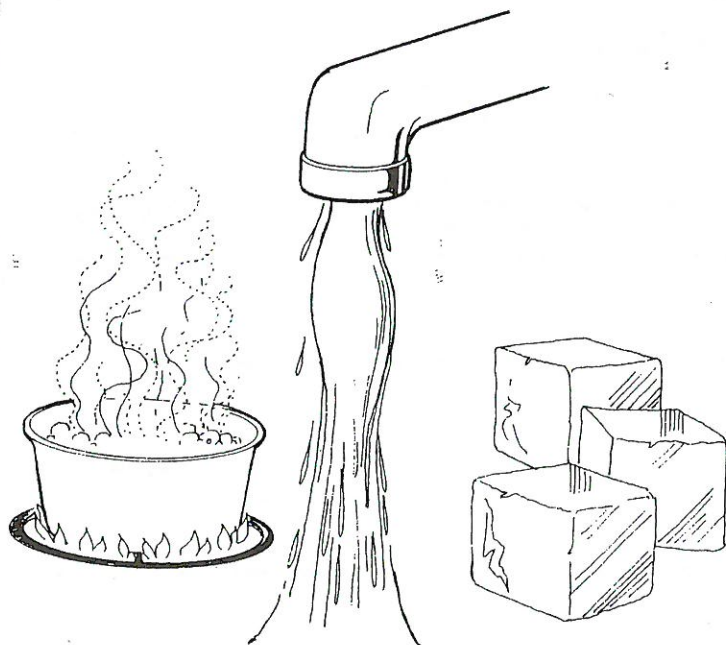
13. beach sand

14. pure air

15. spaghetti sauce

# PHYSICAL VS. CHEMICAL CHANGE

Name \_\_\_\_\_



In a physical change, the original substance still exists, it has only changed in form. Energy changes usually do not accompany physical changes, except in phase changes and when substances dissolve.

In a chemical change, a new substance is produced. Energy changes always accompany chemical changes. Chemical changes are always accompanied by physical changes.

Classify the following as examples of a physical change, a chemical change or both kinds of change.

1. Sodium hydroxide dissolves in water. \_\_\_\_\_
2. Hydrochloric acid reacts with sodium hydroxide to produce a salt, water and heat. \_\_\_\_\_
3. A pellet of sodium is sliced in two. \_\_\_\_\_
4. Water is heated and changed to steam. \_\_\_\_\_
5. Potassium chlorate decomposes to potassium chloride and oxygen gas. \_\_\_\_\_
6. Iron rusts. \_\_\_\_\_
7. Ice melts. \_\_\_\_\_
8. Acid on limestone produces carbon dioxide gas. \_\_\_\_\_
9. Milk sours. \_\_\_\_\_
10. Wood rots. \_\_\_\_\_