

## Worksheet # CC3 : Classifying Matter

## 1. Complete the following statements:

a. Matter is anything that has \_\_\_\_\_ and takes up \_\_\_\_\_.

b. An element is a pure substance made up of only one kind of \_\_\_\_\_.

Ex: \_\_\_\_\_

c. A compound is made up of \_\_\_\_\_.

Ex: \_\_\_\_\_

d. Can a pure substance be a compound? \_\_\_\_\_

## 2. What's the difference between a physical and a chemical change?

a. A physical change \_\_\_\_\_

\_\_\_\_\_

b. A chemical change \_\_\_\_\_

\_\_\_\_\_

## 3. Classify each of these as a physical change (PC) or a chemical change (CC):

a. Meat blackens when cooked too long on a barbecue. \_\_\_\_\_

b. A rock crumbles, eroding a mountain. \_\_\_\_\_

c. The steel in a car rusts. \_\_\_\_\_

d. Milk curdles if a few drops of vinegar are added. \_\_\_\_\_

e. Salad dressing separates into layers after standing. \_\_\_\_\_

f. Water boils, producing steam. \_\_\_\_\_

g. A bomb made of gunpowder explodes. \_\_\_\_\_

## 4. What's the difference between a mixture and a pure substance?

a. A mixture \_\_\_\_\_

\_\_\_\_\_

b. A pure substance \_\_\_\_\_

\_\_\_\_\_

5. What's the difference between a homogenous mixture and a heterogeneous mixture?

a. A homogeneous mixture \_\_\_\_\_

\_\_\_\_\_

b. A heterogeneous mixture \_\_\_\_\_

\_\_\_\_\_

6. Classify each as a pure substance, a homogenous mixture or a heterogeneous mixture

a. distilled water \_\_\_\_\_

b. pond water \_\_\_\_\_

c. air \_\_\_\_\_

d. aluminum \_\_\_\_\_

e. steel \_\_\_\_\_

f. a bag of variously colored marbles \_\_\_\_\_

g. blood \_\_\_\_\_

h. a sugar cube \_\_\_\_\_

i. a calculator \_\_\_\_\_

j. helium gas \_\_\_\_\_