

# Types of Matter Worksheet

1) Define the following:

a. Element –

d. Mixture –

b. Molecule –

e. Homogeneous mixture –

c. Compound –

f. Heterogeneous mixture –

2) What did the marshmallows represent in this activity? What did the toothpicks represent?

3) The element section did not have any toothpicks. Why?

4) What is the difference between a molecule and a compound?

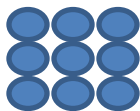
5) If you were looking at the particles, a drawing, or model of a compound, what are some things you would notice?

6) If you were looking at the particles, a drawing, or a model of a molecule, what is one thing you could see that you would not see in a compound?

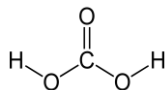
7) In the mixture section, why didn't you connect the water and the salt with a toothpick?

8) Look at the particles of the following substances. Determine if it is an element, compound, or mixture.

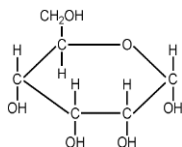
Pure Gold (Au)



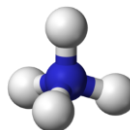
Carbonic Acid



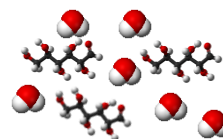
Sugar (C<sub>6</sub>H<sub>12</sub>O<sub>6</sub>)



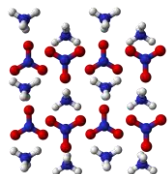
Ammonia (NH<sub>3</sub>)



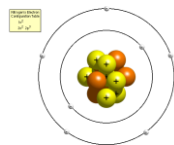
Kool Aid



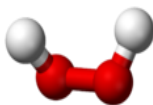
Mystery Substance



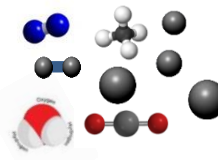
Nitrogen



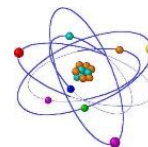
H<sub>2</sub>O<sub>2</sub>



Air



Silver (Ag)

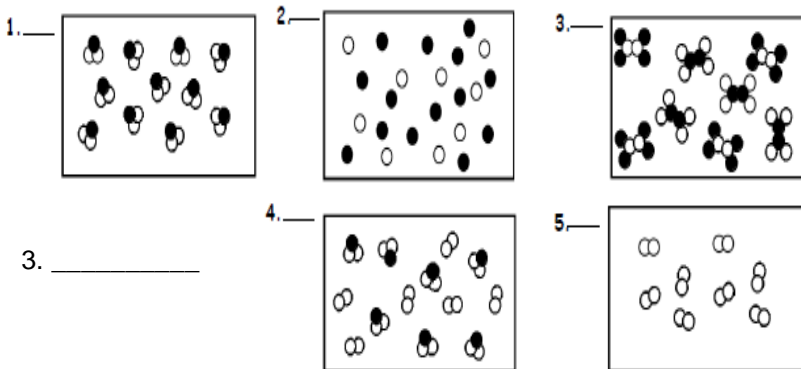


9) Identify if each statement is referring to an atom, element, molecule, compound, or mixture.

- a. The smallest unit of an element that has the same properties as the element.
- b. A pure substance made of two or more atoms of the same element that are bonded together
- c. More than one substance chemically bonded together, can be separated only by chemical means.
- d. More than one substance that can be separated by physical means.
- e. A pure substance that is made of all the same type of atom.

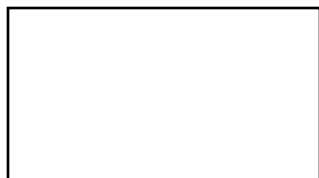
10) Match the diagrams to the description that best matches.

- a. Element
- b. Compound
- c. Mixture of Elements
- d. Mixture of Compounds
- e. Mixture of Elements and Compounds

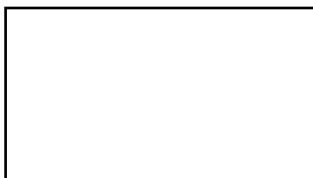


1. \_\_\_\_\_ 2. \_\_\_\_\_ 3. \_\_\_\_\_  
 4. \_\_\_\_\_ 5. \_\_\_\_\_

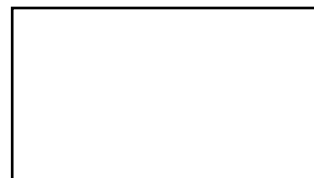
11) Draw particle diagrams (like you see in Q10) for each of the things described.



*Homogenous mixture made up of an gaseous element and a gaseous compound.*



*Heterogeneous mixture made up of two different liquid compounds*



*Homogenous mixture made up of two different solid elements*

12) Complete the classification of matter flow chart:

