

# Exercise 1.2a

## Properties of Matter

Name: \_\_\_\_\_

Date: \_\_\_\_\_ Per: \_\_\_\_\_

**DIRECTIONS: Answer the following in the space provided.**

1. Complete the following table:

	Definition	2 Examples
Physical Property		
Chemical Property		
Physical Change		
Chemical Change		

2. Identify each of the following as being true or false.

- \_\_\_\_ a. A change in size or shape is a physical change.  
 \_\_\_\_ b. A chemical change means a new substance with new properties was formed.  
 \_\_\_\_ c. An example of a chemical change is when water freezes.  
 \_\_\_\_ d. When platinum is heated, then cooled to its original state, this is a physical change.  
 \_\_\_\_ e. When milk turns sour, this is a physical change because a change in odor does not indicate a chemical change.  
 \_\_\_\_ f. When citric acid and baking soda mix, carbon dioxide is produced and the temperature decreases. This is a chemical change.

3. Classify the following as chemical change (CC), chemical property (CP), physical change (PC), or physical property (PP).

- |                           |                                |                            |
|---------------------------|--------------------------------|----------------------------|
| ____ a. Heat conductivity | ____ f. Wood burning           | ____ k. Butter melting     |
| ____ b. Combustibility    | ____ g. Magnetizing iron       | ____ l. Milk souring       |
| ____ c. Silver tarnishing | ____ h. Acid resistance        | ____ m. Dynamite Exploding |
| ____ d. Water freezing    | ____ i. Length of metal object | ____ n. Baking bread       |
| ____ e. Sublimation       | ____ j. Brittleness            | ____ o. Density of gold    |

4. Classify each of the following substances as an element (E), a compound(C), an homogenous mixture(S), or a heterogeneous mixture(M).

- |                        |                                |                      |
|------------------------|--------------------------------|----------------------|
| ____ a. Sand           | ____ h. Steel                  | ____ o. Gold         |
| ____ b. Salt           | ____ i. Italian Salad Dressing | ____ p. Tacos        |
| ____ c. Pure Water     | ____ j. Salt Water             | ____ q. Lead         |
| ____ d. Soil           | ____ k. Apple Pie              | ____ r. Caesar salad |
| ____ e. Soda           | ____ l. Sugar Water            | ____ s. Milk         |
| ____ f. Air            | ____ m. Chocolate Chip Cookie  | ____ t. Potassium    |
| ____ g. Carbon Dioxide | ____ n. Gatorade               | ____ u. Sugar        |

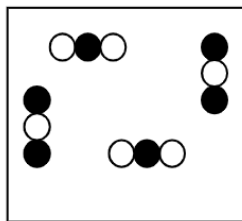
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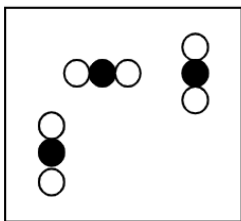
Name: \_\_\_\_\_

Date: \_\_\_\_\_ Per: \_\_\_\_\_

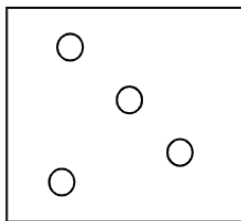
5. For each of the following diagrams determine whether the diagram is a(n) Element, Compound, or Mixture. If it is a mixture, state what type of substances make up the mixture. Explain why you have classified each diagram the way you have.



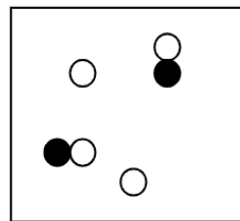
**A**



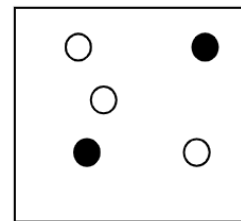
**B**



**C**



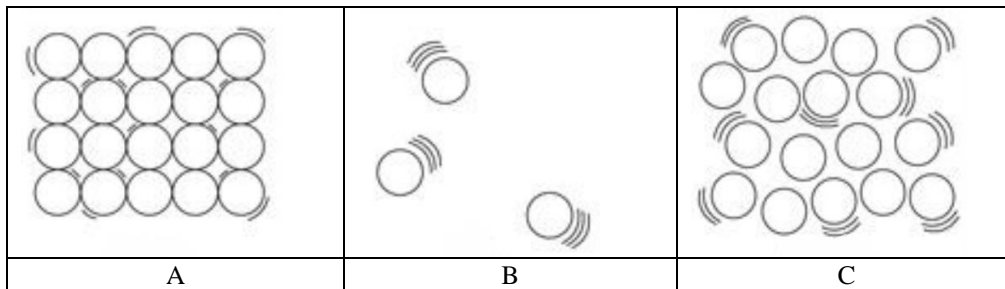
**D**



**E**

Diagram	Classification	Reasoning
A		
B		
C		
D		
E		

6. Each of the following represents a sample of matter in a particular physical state (solid, liquid, gas). Without mentioning what state the sample is, describe each diagram and what is happening with the particles in each sample.



A: \_\_\_\_\_

B: \_\_\_\_\_

C: \_\_\_\_\_