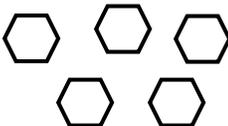
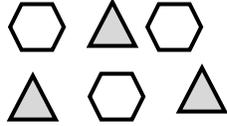
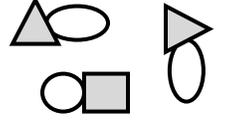
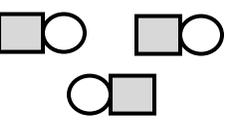


## Matter WS

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

1. Define chemistry.
2. Define matter.
3. Draw the arrangement and describe the movement of particles in each state of matter: solid, liquid, gas.
4. Name and describe all phase changes among the three states of matter (i.e. melting, solidification, condensation, etc.)
5. How are mixtures different from substances?
6. Identify each of the following as either a mixture or substance.
  - a. Carbon dioxide
  - b. Soil
  - c. Raisin bread
  - d.  $\text{H}_2\text{O}$
  - e.  $\text{Fe} + \text{Zn}$
7. There are two types of substances: element and compound. What is the difference between the two?
8. Identify each of the following as either an element or compound.
  - a. Carbon
  - b. Calcium
  - c. Glucose
  - d.  $\text{KBr}$
  - e.  $\text{Fe}$
9. There are two types of compounds: ionic and covalent. What types of elements combine to form an ionic bond? What types of elements combine to form a covalent bond?
10. Identify each of the following as either a metal or nonmetal.
  - a. Aluminum
  - b. Helium
  - c. Phosphorus
  - d. Potassium

Use the diagrams and key below to answer Questions 11-13.

Key	Mg 	Kr 	KCl  	MgO  
Answer Choices				
	A	B	C	D

11. Which diagram(s) above represent(s) a pure substance?

12. Which diagram(s) above represent(s) a mixture of elements?

13. Which diagram(s) above represent(s) a mixture of compounds?

14. How is a chemical change different from a physical change?

15. List four (4) indications of a chemical change.

16. Identify each of the following change as either physical or chemical.

- Dissolving Kool-Aid powder in water
- Melting of ice
- Fizzing when an Alka-Seltzer tablet is added to water
- Decomposition of food by stomach acid during digestion
- Burning of wood at a camp fire

17. What is the difference between a homogeneous mixture and a heterogeneous mixture?

18. Identify each of the following mixture as either homogeneous or heterogeneous.

- Italian dressing
- Soda
- Chocolate chip cookie

19. Describe the six (6) techniques used in lab to physically separate mixtures.

20. Describe the one (1) technique used in lab to chemically change a substance.

21. Name the lab equipment that you used in lab and describe its function.