**District Assessment Review**

**CLS 1 – Matter**1. Fill in the following classification of matter diagram.

2 or more substance in the same place; the substances keep their own properties

Consists of only 1 type of substance

Only 1 type of atom; bonded or unbonded

2 or more different atoms bonded to make a new substance with new properties

A mixture that is different throughout the sample

A mixture that is the same throughout the sample

2. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ change is when a substance changes form, shape, or   
 phase but its identity remains the same.   
 Give two examples of this type of change:  
 1) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
  
3. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ change is when a substance changes identity from one   
 substance to another. A new substance forms with new properties.  
 Give two examples of this type of change:  
 1) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**CLS 2 – Atomic Theory & Periodic Table**1. Identify the following elements:  
 a. The alkali metal in the 2nd period. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
 b. The alkaline earth metal in the 4th period. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
 c. The halogen in the 5th period. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

d. The noble gas in the 1st period. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. Determine the number of protons, neutrons, and electrons for the following ions:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Symbol | Atomic # | Mass # | # of   protons | # of  neutrons | # of  electrons |
| Ca+2 | 20 | 40 |  |  |  |
| Cl-1 | 17 | 35 |  |  |  |
| Na+1 | 11 | 23 |  |  |  |

3. Circle all of the following that represent different isotopes of the SAME atom:  
  
           
4. What is an isotope?

|  |  |  |  |
| --- | --- | --- | --- |
| Particle | Mass (amu) | Charge | Location |
| Proton |  |  |  |
| Neutron |  |  |  |
| Electron |  |  |  |

5. Fill in the following chart:

6. Which elements are shiny, good conductors of heat and electricity, malleable,   
 and ductile? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
  
7. Which elements are dull, brittle, and not good conductors of heat and electricity?  
 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. Which elements have some characteristics from each of questions #6 and #7?  
 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
  
9. Put the following elements in order of lowest ionization energy to highest:  
 Ba S Mg

10. Put the following elements in order of largest atomic radius smallest:  
 F K B  
  
11. Put the following elements in order of lowest electronegativity to highest:  
 O Na Al

**CLS 8 – Energy**  
1. On the graph below, label where **solid, liquid, and gas** phases exist.   
 Also identify the phase changes **melting and boiling.**  
  
  
  
  
 Temp  
  
  
  
  
  
 Energy  
  
  
2. An endothermic reaction is one where the system \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ energy.  
  
3. An \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ reaction is one where the system releases energy.   
  
4. Draw a graph to represent an endothermic reaction and an exothermic reaction.  
  
 Endothermic Exothermic  
  
  
  
Energy Energy  
   
  
   
  
 Reaction Time Reaction Time