Last name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ First name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_

**Chemical Rxns –**

**Burning Magnesium Demo**

|  |  |
| --- | --- |
| Write an observation about the ***reactant*** (Magnesium Mg) |  |
| Write an observation about the ***product***(Magnesium oxide MgO) |  |
| What is the other ***reactant*** besides Magnesium? |  |
| How do you know a chemical reaction took place? **Write 1-2 complete sentences explaining what you observed that indicates there was a chemical change.** (Hint: Remember the 4 clues) |  |
| Write a ***balanced chemical equation*** for the reaction. (Hint: The total number of atoms on each side must be the same before and after.)\_\_\_Mg + O2 \_\_\_MgO |

**Chemical Formulas/Counting Atoms**

|  |
| --- |
| **NUMBER OF EACH ATOM** |
| \_\_\_\_Fe \_\_\_\_Br |
| \_\_\_\_H \_\_\_\_N \_\_\_\_O |
| \_\_\_\_H \_\_\_\_O |
| \_\_\_\_N \_\_\_\_H \_\_\_\_Cl |
| \_\_\_\_Na \_\_\_\_C \_\_\_\_H \_\_\_\_O |
| \_\_\_\_Fe \_\_\_\_O |

|  |
| --- |
| **CHEMICAL FORMULA** |
| **#1 –** FeBr3 |
| **#2 –** 2HNO3 |
| **#3 -** 2H2O |
| **#4 –** 4NH4Cl |
| **#5 –** 2NaC2H3O2 |
| **#6 -** 2Fe2O3 |

**Photosynthesis/Cellular Respiration Review**

|  |  |
| --- | --- |
| QUESTION | ANSWER |
| 1. Write the ***reactants*** of photosynthesis.
 |  |
| 1. Write the ***products*** of photosynthesis.
 |  |
| 1. Is this an ***endothermic*** or *exothermic* reaction? Why?
 |  |
| 1. Write the ***reactants*** of cellular respiration.
 |  |
| 1. Write the ***products*** of cellular respiration.
 |  |
| 1. Is this an ***endothermic*** or ***exothermic*** reaction? Why?
 |  |
| 1. What do you notice about the two equations?
 |  |



**STATION 2**





|  |
| --- |
| **CHEMICAL FORMULA** |
| **#1 -** Mg(OH)2 |
| **#2 -** Al2(SO4)3 |
| **#3 -** 2H2O |
| **#4 -** Ca2Mg2(SiO4)2(OH)2 (Asbestos) |
| **#5 -** C2H4(OH)2 (Antifreeze) |
| **#6 -** 2Fe2O3 |

**STATION 3**

**Photosynthesis** is the process in which **light energy** from the sun is used to produce **glucose**, a simple sugar. The equation for photosynthesis is:

 6 CO2 + 6 H2O + energy 🡪 C6H12O6 + 6 O2

The cells in your body use **glucose** to get the energy they need through **cellular respiration**. The equation for cellular respiration is:

 C6H12O6 + 6 O2 🡪 6 CO2 + 6 H2O + energy

**Reactants =** starting materials in a chemical reaction

**Products =** substances formed from a reaction

**Endothermic =** energy is absorbed (added) during the reaction (requires energy)

**Exothermic =** energy is released or removed during the reaction

**STATION 1: Burning Magnesium Demo**

**(make-up help)**

|  |  |
| --- | --- |
| Write an observation about the ***reactant*** (Magnesium). | SilverShinySolidMalleable  |
| Write an observation about the ***product*** (Magnesium oxide). | BrittleWhite solidLooks like ash |
| What is the other ***reactant*** besides Magnesium? | Hint: *What is in the air that causes a fire to burn?* |
| How do you know a chemical reaction took place? **Write 1-2 complete sentences explaining what you observed that indicates there was a chemical change.** (Hint: Remember the 4 clues) | *Did a new substance with new properties form? How do you know?*Important observations:SmokeA bright white light was given off |
| Write a ***balanced chemical equation*** for the reaction. (Hint: The total number of atoms on each side must be the same before and after.)Reactant 1 + Reactant 2 🡪 Product |