**Balancing Equations Activity** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What number represent the Coefficient? \_\_\_\_\_\_\_\_\_\_\_\_\_

**7 B2H6**

1. What number represents the Subscript? \_\_\_\_\_\_\_\_\_\_\_\_\_
2. What element is represented by the letter “B”? \_\_\_\_\_\_\_\_\_\_\_\_\_
3. How many “B’s” do you have? \_\_\_\_\_\_\_\_\_\_\_\_\_
4. What element is represent by the letter “H”? \_\_\_\_\_\_\_\_\_\_\_\_\_
5. How many “H’s” do you have? \_\_\_\_\_\_\_\_\_\_\_\_\_

**Table 1:** (*Make sure to balance all equations on the whiteboard first!*)

|  |  |  |  |
| --- | --- | --- | --- |
| Make the following Equations  on your desk | Reactants | Products | Balanced Equation |
| H2 + O2 **🡪** H2O |  |  |  |
| H2O2 **🡪** H2O + O2 |  |  |  |
| Na + O2 **🡪** Na2O |  |  |  |
| N2 + H2 **🡪** NH3 |  |  |  |
| P4+ O2 **🡪** P4O10 |  |  |  |
| Fe + H2O **🡪** Fe3O4 + H2 |  |  |  |
| C + H2 **🡪** CH4 |  |  |  |
| Na2SO4 + CaCl2 **🡪** CaSO4+ NaCl |  |  |  |
| C2H6 + O2 **🡪** CO2 + H2O |  |  |  |
| Al2O3 **🡪** Al + O2 |  |  |  |

**Analysis/Results:**

1. What does "🡪" mean? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What side of the equation are the reactants found? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Products? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Why must all chemical equations be balanced? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Why can't the subscripts be changed? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Balance the following Reactions:**

1. \_\_\_\_ AlBr3 + \_\_\_\_ K 🡪 \_\_\_\_ KBr + \_\_\_\_ Al
2. \_\_\_\_ LiCl + \_\_\_\_ Br2 🡪 \_\_\_\_ LiBr + \_\_\_\_ Cl2
3. \_\_\_\_ Mn + \_\_\_\_ HI 🡪 \_\_\_\_ H2 + \_\_\_\_ MnI3
4. \_\_\_\_ P4 + \_\_\_\_ Br2 🡪 \_\_\_\_ PBr3
5. \_\_\_\_ Na3P + \_\_\_\_ CaF2 🡪 \_\_\_\_ NaF + \_\_\_\_ Ca3P2