Basic Physical Science 2018 Name:

Reactions Practice Period:

Ch 8.1, 8.2, 8.4-7

1. What is a chemical reaction?
2. Give three signs a chemical reaction has taken place.
3. Write an example of a chemical equation, AND label the reactants and the products.
4. What is the difference between a chemical formula and a chemical equation?
5. What is the law of conservation of matter?
6. What are three ways to speed up or slow down a chemical reaction?
7. Why do we balance equations?
8. To balance equations, we must add \_\_\_\_\_\_\_\_\_\_\_\_\_\_ in front of the chemical formula.
9. We are not able to split up compounds or add/change subscripts in order to balance chemical equations. TRUE or FASLE
10. Balance the equation: \_\_\_\_ Mg + \_\_\_\_ Fe2O3 🡪 \_\_\_\_ Fe + \_\_\_\_ MgO
11. Balance the equation: \_\_\_\_ NH3 + \_\_\_\_ I2 🡪 \_\_\_\_ N2I6 + \_\_\_\_ H2
12. Balance the equation: \_\_\_\_ H2O+ \_\_\_\_ SO3 🡪 \_\_\_\_ H2SO4

1. The following statements describe one of the types of reactions.   
   Label the statements accordingly: S, D, SR, or DR   
   1. \_\_\_\_\_ The toy falls apart.
   2. \_\_\_\_\_ AB + CD 🡪 AD + CB
   3. \_\_\_\_ 2KBr 🡪 2K + Br2
   4. \_\_\_\_\_ Putting Legos together.
   5. \_\_\_\_\_ A + B 🡪 AB
   6. \_\_\_\_\_ N2 + 3H2 🡪 2NH3
   7. \_\_\_\_\_ AB 🡪 A + B
   8. \_\_\_\_\_ Two couples double date to the dance, and then switch dates halfway through.
   9. \_\_\_\_\_ 2Al + 3CuCl2 🡪 2AlCl3 + 3Cu
   10. \_\_\_\_\_ A + BC 🡪 B + AC
   11. \_\_\_\_\_ Lola goes to the dance alone, but meets Emily and Rafael there.   
       By the end of the night, Lola leaves with Rafael and Emily is left alone.
   12. \_\_\_\_\_ KCl + AgNO3 🡪 KNO3 + AgCl
2. How do you differentiate (tell the difference) between synthesis and decomposition reactions?
3. How do you differentiate (tell the difference) between single- and double-replacement reactions?