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| *Five Reaction Types*  CλeMis+ry: http://genest.weebly.com  Stop in for help every day at lunch and Tues &Thurs after school! | **by Edward Carter** | Name\_\_\_\_\_\_\_\_\_  Period\_\_\_\_\_\_\_\_ |

*Predict the products for the following reactions then balance the equation,*

|  |  |  |
| --- | --- | --- |
|  |  | Stop! Don’t touch this column until you get a stamp for the left hand column. |
| Write out the **unbalanced** version of  each reaction below |  | Now rewrite the same reaction as a **balanced** reaction. |
|  |  |  |
| CaCO3 🡪 ? + ? (decomposition to form carbon dioxide and calcium oxide) |  |  |
| C2H4O2 + O2 🡪 ? + ? (combustion) |  |  |
| (single replacement) Na + Ag2S 🡪 ? + ? |  |  |
| (combination) silver metal and oxygen gas reacting to form just a single product |  |  |
| (double replacement)  NaOH + Ag2SO4 🡪 ? + ? |  |  |
| AgNO3 + CuCl2 🡪 ? + ? |  |  |
| (combustion) C3H6 + O2 🡪 ? + ? |  |  |
| (combination) pure aluminum reacting with pure iodine to just a single product |  |  |
| (combustion) O2 + C5H12O2 🡪 ? + ? |  |  |
| (single replacement) Na + CaSO4 🡪 ? + ? |  |  |
| (decomposition to form water and a pure element) H2O2 🡪 ? + ? |  |  |
| Get a stamp here: |  |  |

1. Another name for a combination reaction is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ reaction.
2. In this reaction, 3H2 + 1N2 🡪 2NH3
   1. what are the big numbers (3, 1, 2) called? ( subscripts / coefficients )
   2. what are the little numbers (2, 2, 3) called? ( subscripts / coefficients )

When you balance an equation, which are you allowed to change?

( the coefficients / the subscripts )

1. When you are balancing a reaction, you are making sure it obeys

The Law of \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Which type of reaction always has two reactants and one product?

□ single replacement reaction

□ double replacement reaction

□ combination reaction

□ decomposition reaction

1. Which type of reaction always has one reactant and two products?

□ single replacement reaction

□ double replacement reaction

□ combination reaction

□ decomposition reaction

1. Balance and classify each of the reactions below as one of the following reaction types

COMBUSTION,

DECOMPOSITION,

COMBINATION,

SINGLE REPLACEMENT,

DOUBLE REPLACEMENT

* 1. \_\_\_\_\_\_\_\_\_\_\_ any reaction that has oxygen as a reactant and water and carbon dioxide as products
  2. \_\_\_\_\_\_\_\_\_\_\_ CH4 + O2 🡪 CO2 + H2O
  3. \_\_\_\_\_\_\_\_\_\_\_ Zn + Pb(NO3)2 🡪 Zn(NO3)2 + Pb
  4. \_\_\_\_\_\_\_\_\_\_\_ Mg + N2 🡪 Mg3N2
  5. \_\_\_\_\_\_\_\_\_\_\_ H2O2 🡪 H2O + O2