

Balancing Chemical Equations

According to the Law of Mass Conservation (& John Dalton!) matter is never created nor destroyed during chemical reactions

- All of the atoms in the reactants of a chemical reaction must be accounted for in the products

The Basic Process of Balancing Chemical Equations:

1. Identify all reactants & products in the reaction & write out their formulas (*this is the unbalanced chemical equation*)
2. Count the number of each atom for each compound for each reactant & product
(these values must be the same for both reactants & products when the reaction is balanced!)
4. Starting with the most “complicated” molecule, systematically adjust the coefficients to balance # of the atoms on each side of the reaction (*balance one atom at a time*)
5. Repeat until all atoms are balanced for the reaction
6. Now you should have a balanced chemical equation!