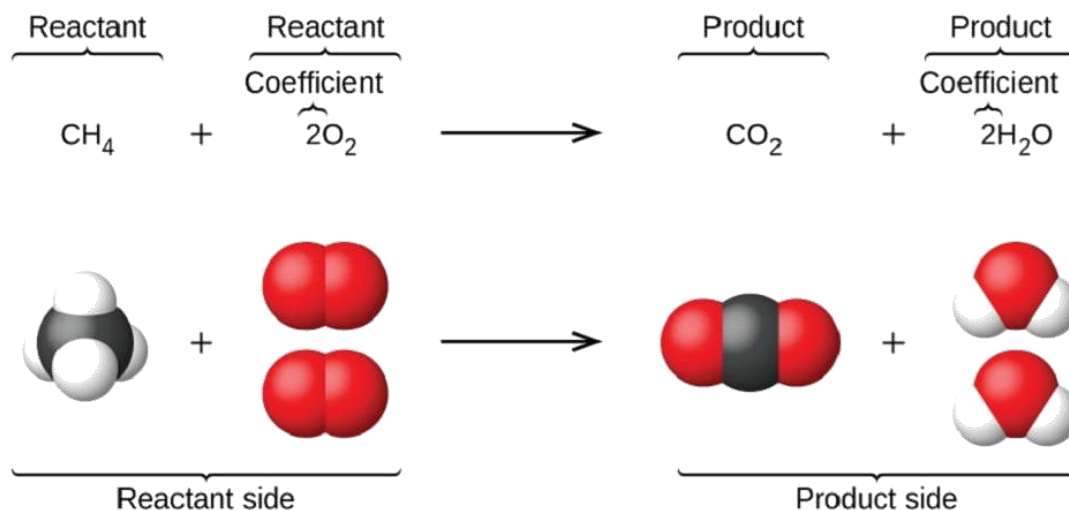


# Chemical Bonds & Equations

## Section 4: Balancing Chemical Equations

Balanced chemical equations have the same number of atoms of each element on both sides of the equation. Therefore, when balancing chemical equations, NEVER change the subscripts; instead, change the coefficient in front of the compounds needing balancing.



Following these steps will ensure a correctly balanced equation. First, write a chemical equation for the reaction using formulas and symbols. Make sure reactants are on the left side and products are on the right side. Second, count the atoms in the reactants and products. Third, choose coefficients that balance the equation. Generally, if there is an even number of an element on one side and an odd on the other side, place a 2 in front of the compound containing odd numbers of atoms. Finally, recheck the numbers of atoms on both sides of the equation and adjust coefficients if necessary. Remember never to change the subscripts.

### Review:

1. Explain how to balance a chemical equation.
2. What side of the equation should the reactants be on?