

Balancing Chemical Equations

The **Law of Conservation of Mass** states that: in any chemical reaction, the mass of products produced must be equal to the mass of reactants used. This means that we must have the same number of atoms on both sides of the equation!

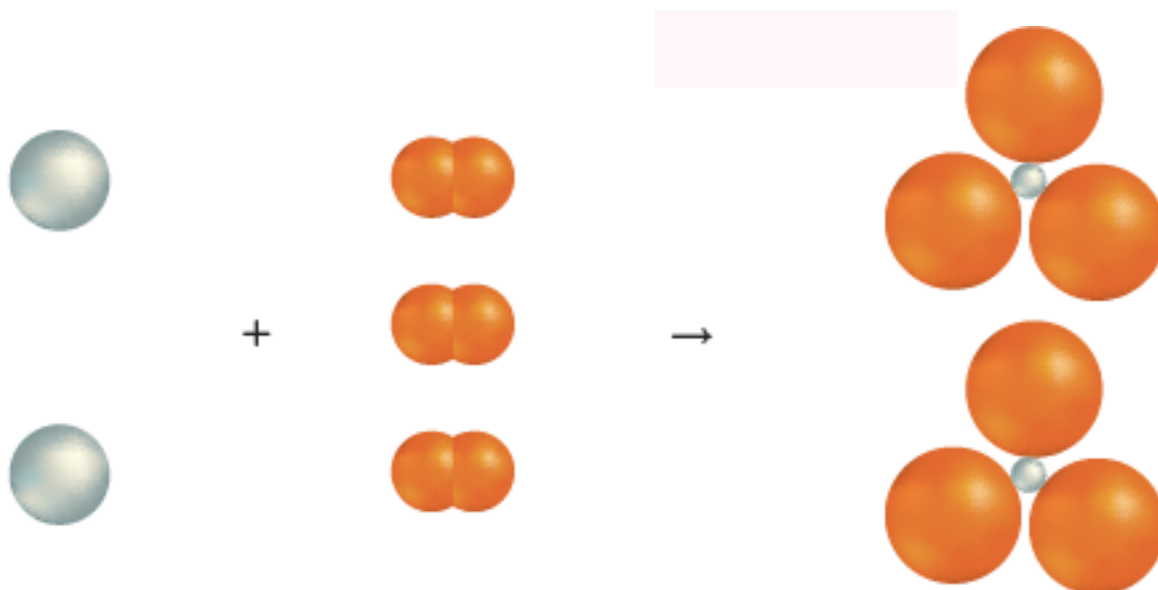
Helpful hints:

- don't forget about **H O F Br I N Cl !!!!** These elements are diatomic.
- start with metals or atoms that only appear in one place
- balance polyatomic ions
- leave oxygen and hydrogen until the end
- use diagrams of atoms to help you

Ex) When aluminum metal is reacted with liquid bromine, a precipitate of aluminum bromide is formed.

Word Equation:

Balanced Chemical Equation:



Ex) Aqueous solutions of silver nitrate and calcium chloride are mixed together. Solid silver chloride and an aqueous solution of calcium nitrate are formed.

Word Equation:

Balanced Chemical Equation:

Ex) Aluminum foil is placed in an aqueous solution of copper(II) sulfate, producing solid copper metal and a solution of aluminum sulfate.

Word Equation:

Balanced Chemical Equation:

Try it: p. 120 #11-20