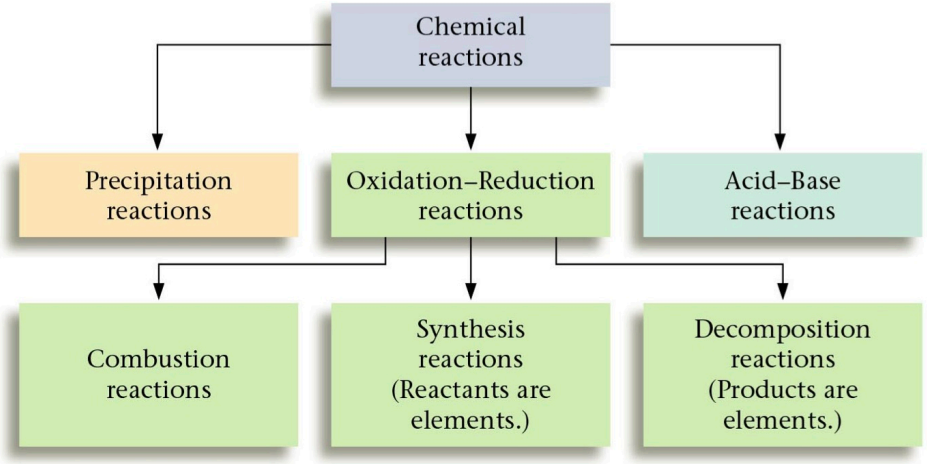

What to look for:

PRECIPITATION REACTIONS:

*Two aqueous solutions get together to form a solid. Often called **double displacement** because two compounds switch buddies.*

AB**(aq)** + CD**(aq)** → AD**(s)** + CB(aq)

NaI (aq) + $AgNO_3$ (aq) → $NaNO_3$ (aq) + AgI (s)

ACID-BASE REACTIONS:

One reactant has an H^+, the other an OH^-. Water is a product. (Another example of double displacement.)

M**OH** (aq) + **H**X (aq) → **H_2O (l)** + MX (aq)

LiOH (aq) + HCl (aq) → H_2O (l) + LiCl (aq)

REDOX REACTIONS:

Watch for an element on one side *alone*, but on the other side it is *buddied up with another element*. This implies the element went from a zero charge to either a positive or negative one. There ***had*** to be a transfer of electrons! These include the following subgroups:

Single displacement *An element and a compound swap one buddy to become another compound and an element.*

A + BC → B + AC

F_2 (g) + 2 NaBr (s) → 2 NaF (s) + Br_2 (l)

Synthesis (Combination) *Two elements become a compound.*

A + B → AB

2 Na (s) + Cl_2 (g) → 2 NaCl (s)

Decomposition *One substance breaks into its elements.*

AB → A + B

2 $KClO_3$ (s) → 2 KCl (s) + 3 O_2 (g)

Combustion *Here some substance reacts with oxygen (O_2) to give products with O's stuck on them.*

CH_4 (g) + 2 O_2 (g) → CO_2 (g) + 2 H_2O (g)