

Chemical Reaction - the process in which new substances are created from one or more substances.
(Bonds are being broken and formed)

- The new substances that form will have new physical + chemical properties
 - ↳ taste, smell, color, etc.
 - ↳ reactivity

Evidence of Reaction

1. Change in energy

- temperature
 - ↳ exothermic - feels hot
 - ↳ endothermic - feels colder

- light

- Sound

2. New substance forms

- Bubbles! (gas forms)

- Precipitant (solid falls from solution)

- ↳ can be large enough to sink to bottom or small enough to stay dispersed in solution

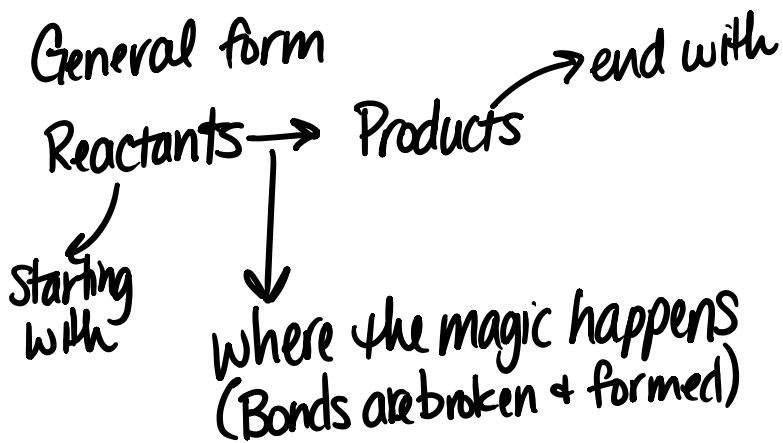
- Water (only in ^{some} neutralization reactions) ↳ + combustion

3. Transfer of electrons

Oxidation Reduction Reaction

Chemical Equations

General form



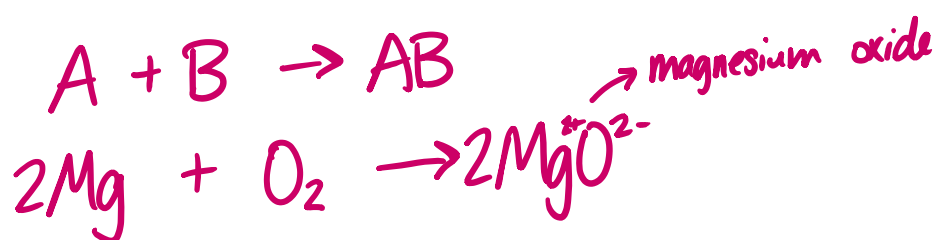
* Why React? - to have more stable electron configuration.

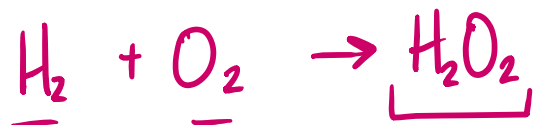
Types of Reactions

1. Synthesis - "to make"

2 or more substances combine into 1.

(a "couple" coming together)





2. Decomposition "to break down"
(the breakup) | Substance breaks down into two or more substances.



3. Single Replacement

- a more reactive substance replaces a less reactive, similar substance

↳ Like replaces like (positive / negative)

↳ metal replaces metal.

↳ non-metals replace non-metals



*Notice they only have charges when they are ionically bonded!

4. Double Replacement

- Two ionic compounds exchange their ions.

- Like replaces like, again!

↳ don't forget, positives go first, negatives go second.

* In this case, you will never have a positive, positive - negative, negative!



5. Combustion Reaction

