

# Chemical Reactions



- Chemical Reaction -- A process in which some substances change into different substances.



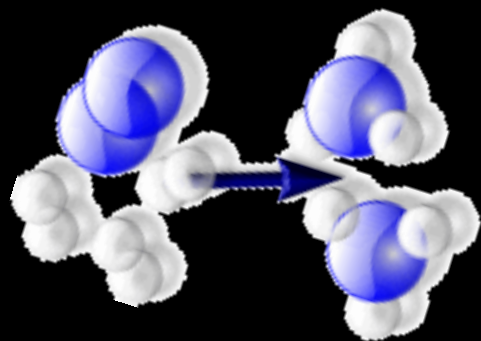
- Ex: Magnesium + Oxygen  $\rightarrow$  Magnesium Oxide



# Chemical Equations:

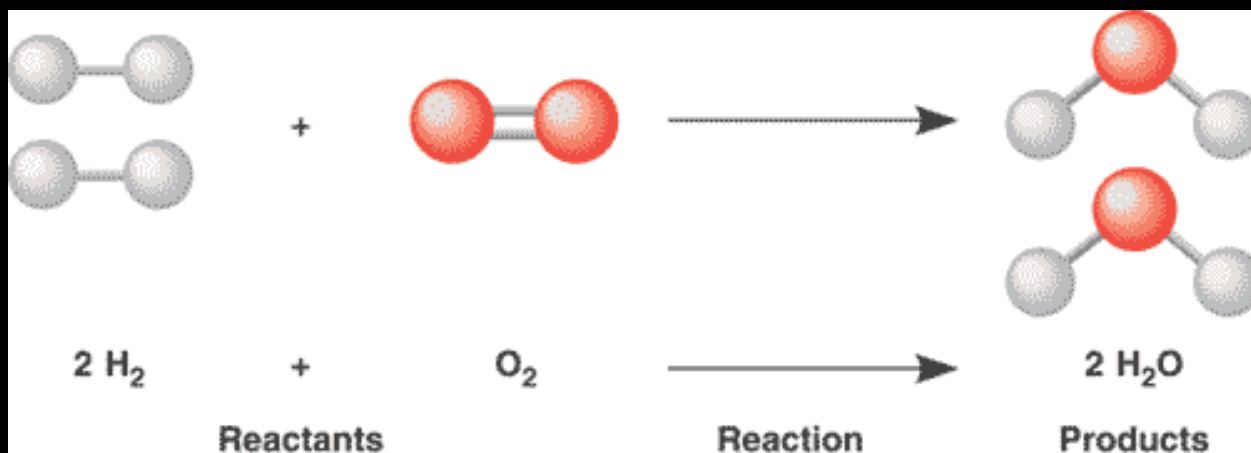
- Reactants - starting substance
  - On left
- Products - ending substance... what is produced.
  - On right

Reactants → Products



# Law of Conservation of Mass

- Matter cannot be created or destroyed.
- Atoms are just re-arranged.



Rate of Reaction: speed at which a chemical reaction happens.

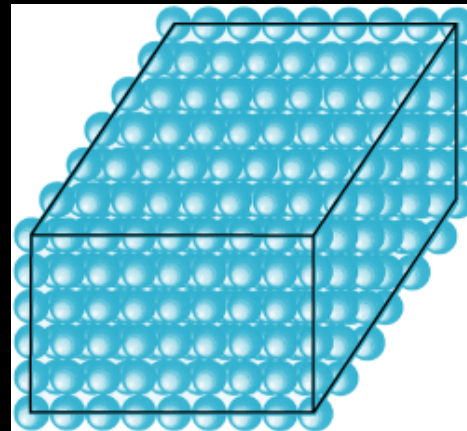
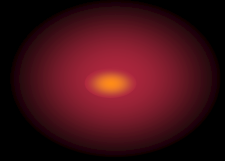


- Factors affecting rate of reaction....



- Concentration -- the amount of substance present.

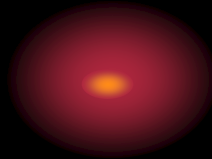
- Higher concentration=faster reaction



- Surface area - the amount of area on the outside of an object.

- More surface area=faster reaction





- Temperature - the speed in which particles move.

- Higher temperature=faster reaction



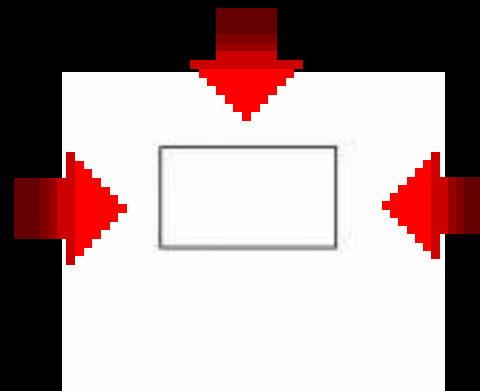




- Catalyst - A substance that brings the reactants together.
- The catalyst doesn't change.

- Pressure - the amount of space a substance has to move in.

- More pressure=faster reaction





Agitation- mixing molecules

More agitation=faster reaction