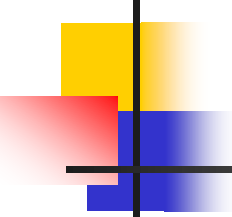


Chapter 2

Chemical Reactions



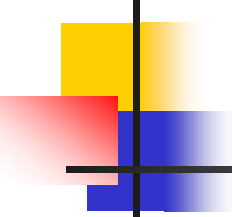
Vocabulary

1. Activation Energy
2. Catalyst
3. Chemical Equation
4. Chemical Reaction
5. Concentration
6. Endothermic Reaction
7. Enzyme
8. Exothermic Reaction
9. Inhibitor
10. Product
11. Rate of Reaction
12. Reactant

- the minimum amount of energy needed to start a reaction
- substance that speeds up a chemical reaction but is not used up itself
- shorthand form of writing what reactants are used and what products are formed in a chemical reaction; sometimes shows whether energy is produced or absorbed
- process that produces chemical change, resulting in new substances that have properties different than the original substances
- describes how much solute is present in a solution compared to the amount of solvent
- chemical reaction in which chemical energy is absorbed
- catalysts that are large protein molecules which speed up reactions needed for your cells to work properly
- chemical reaction in which heat energy is released
- substance that slows down a chemical reaction, making the formation of a certain amount of product take longer
- substance that forms as a result of a chemical reaction
- measure of how fast a chemical reaction occurs
- substance that exists before a chemical reaction begins

2 – 1 Chemical Formulas and Equations





Physical or Chemical Change

- Physical Change – change in which the form or appearance of matter changes, but not its composition.
- Chemical Change – change in which the composition of a substance changes.
 - Change in color (leaves, toast) , energy (hot,cold,light), odor (spoiled food) , formation of a gas (bubbling) , formation of a solid (precipitate)

- Chemical changes produce new substances that have properties different from those of the original substance

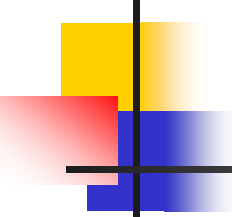


- Chemical Reaction – the process that creates a chemical change.



Chemical Reactions

- Reactants – the substances that exist before the reaction.
- Products – the substances that form as a result of the reaction.



Reactions Around the Home

Reactants

Products

Baking soda + Vinegar

→

Gas + White solid

Charcoal + Oxygen

→

Ash + Gas + Heat

Iron + Oxygen + Water

→

Rust

Silver + Hydrogen sulfide

→

Black tarnish + Gas

Gas (kitchen range) + Oxygen

→

Gas + Heat

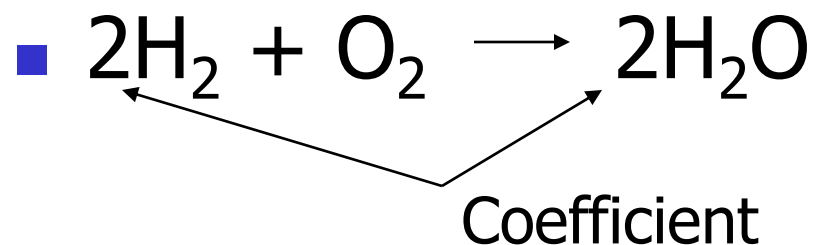
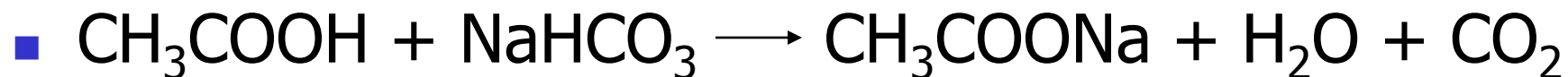
Sliced apple + Oxygen

→

Apple turns brown

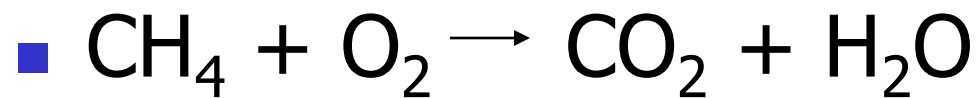


Chemical Equations

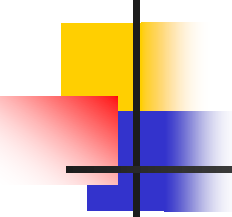




Balancing Equations

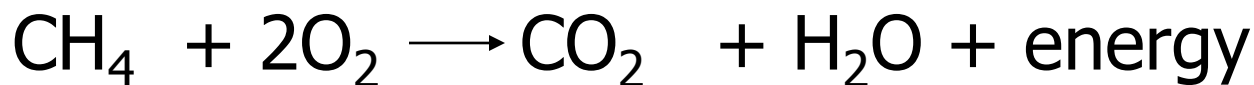






Energy in Chemical Reactions

- Exothermic Reaction - chemical reaction in which heat energy is released.



- Endothermic Reaction - chemical reaction in which chemical energy is absorbed.

