

- They are known as biological catalyst.
  - Simply put... they speed up chemical reactions
  - They speed up the reaction by lowering the amount of energy needed to do the same task.
- Enzyme's work on a substance called a substrate
  - Enzymes work on a specific substrate
    - Example: Lock and Key
  - The substance will bind to a specific region on the enzyme called the active site.

#### Enzyme Process/Catabolic

- An enzymatic reaction will bind the substrate
- Form an enzyme-substrate complex; when the substrate is connected to the enzyme.
- Enzyme will work on the substrate and turn it into something different called a product.
- Once the enzyme has created the products it can be reused over and over again until there isn't any more substrate available.
- Changes in temperature or pH can cause the shape of an enzyme to change. If you change or alter the shape of an enzyme it is said to be denatured.

#### Enzyme/Substrate Facts

- Most enzymes are named after the substance that they work on/ substrate.
  - Substrates have an ending to their name as well... -ase
  - Ex. lactase is the enzyme. Lactose is the substrate.

#### Food Test

- Benedict's Solution: test for simple sugar
- Biuret's Solution: test for proteins
- Brown Paper bag: test for lipids
- Iodine Test: Test for starches