    - The optimal pH level is one of 6-8
- Salt
    - Changes in salinity adds or removes cations and anions
        - Cation: positive ion
        - Anion: negative ion
    - Disrupts bonds 3D shape, causing enzyme to denature
- Cofactors: nonprotein helpers for catalytic activity
    - Can bind tightly to enzyme or loosely to substrate
    - Causes change in shape
- Inhibitors
    - Competitive inhibitor: blocks substrates from binding to active site by taking its place
    - Noncompetitive inhibitor: binds to enzyme in location other than active site, causing enzyme to change shape

ALLOSTERIC REGULATION

- Allosteric regulation is the regulation of enzymes by binding a regulatory molecule to a site other than the active site
- The site that the regulatory molecules bind to are called allosteric sites
- Regulation is done through allosteric activation or allosteric inhibition
    - Allosteric activation: stabilizes shape that has functional active sites by enhancing attraction between substrate and OTHER binding sites
    - Allosteric inhibition: stabilizes inactive enzyme by decreasing attraction between substrate at other active sites
- Similarly, feedback inhibition, or negative feedback, is a method of metabolic control
- Feedback inhibition occurs when the end product of an enzyme prevents the continuing of the metabolic pathway by inhibitory binding and is a part of the reaction
- It prevents unnecessary overproduction of the product