

Notes on Enzymes!

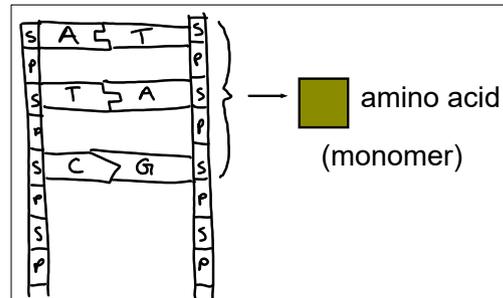
Dec 11-9:50 AM

DNA - the code to not only how you look but also the code to building enzymes (proteins)! Enzymes are biological catalysts. Which means they help speed up chemical reactions and do so using less energy than if the reaction took place without the enzyme.

Dec 11-9:50 AM

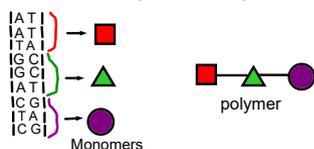
Every three rungs of the ladder in your DNA is a code to an amino acid. These amino acids are called monomers when viewed as a single unit.

Dec 11-9:50 AM



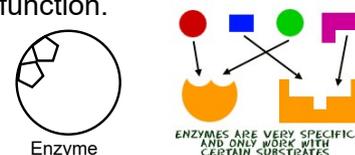
Dec 11-9:50 AM

When a bunch of monomers (amino acids) link together they build a polymer. Mono = one and poly = many.



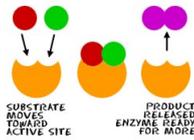
Dec 11-9:50 AM

A long stranded polymer (100s to 1000s of amino acid monomers attached) will build a specific enzyme with a specific shape and a specific function.



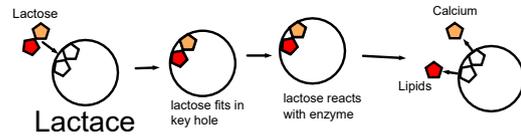
Dec 11-9:50 AM

Active Site = the missing "puzzle piece" void in the enzyme where the substrate goes into. Here the substrate is either broken or put together.



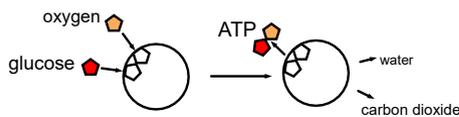
Dec 12-7:28 AM

Lets say this enzyme is lactace - an enzyme used to break down lactose (chemicals in dairy products - milk, ice cream, cheese.)



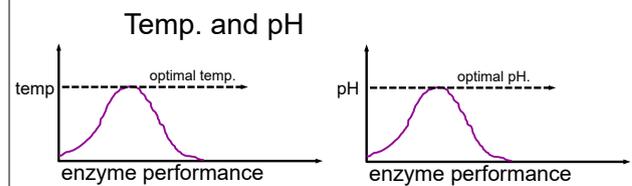
Dec 12-7:11 AM

Sometimes enzymes bring things together instead of breaking them apart!



Dec 12-7:15 AM

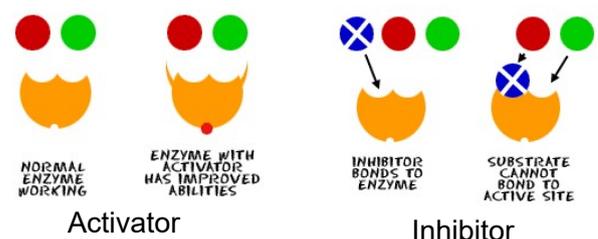
Factors that effect enzymes:



Dec 12-7:22 AM

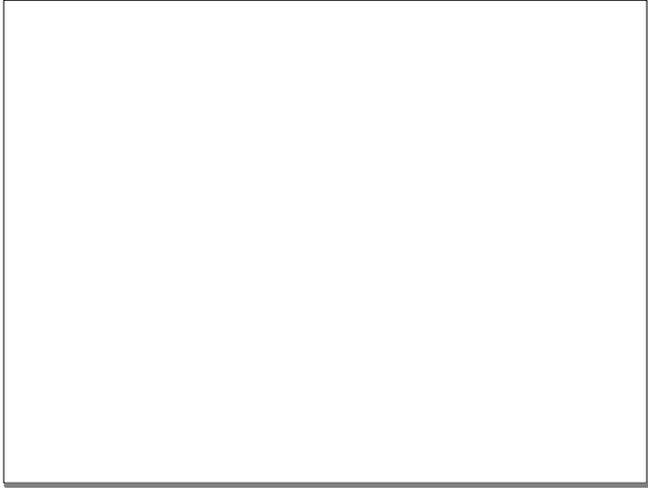
Activators: Activators make enzymes work harder and faster. If you're running in a race and you need more energy, get those enzymes to work! Hormones can trigger responses that activate enzymes.

Inhibitors: These are the opposite of activators. Inhibitors either slow down or stop the activity of an enzyme. They change the overall shape of the enzyme. A nasty example of an inhibitor is snake venom or maybe nerve gas from World War I.



Dec 11-7:16 AM

Dec 11-7:16 AM



Dec 12-7:29 AM