

Enzyme Notes

Name: _____

Period: _____

Please read section 2-4, starting on page 50 in your textbook (page 49 in your old textbook). Please define, in your own words (you won't get credit unless they are your own words) the following terms:

Chemical reaction:

Reactant:

Product:

Activation Energy:

Catalyst:

Enzyme:

Substrate:

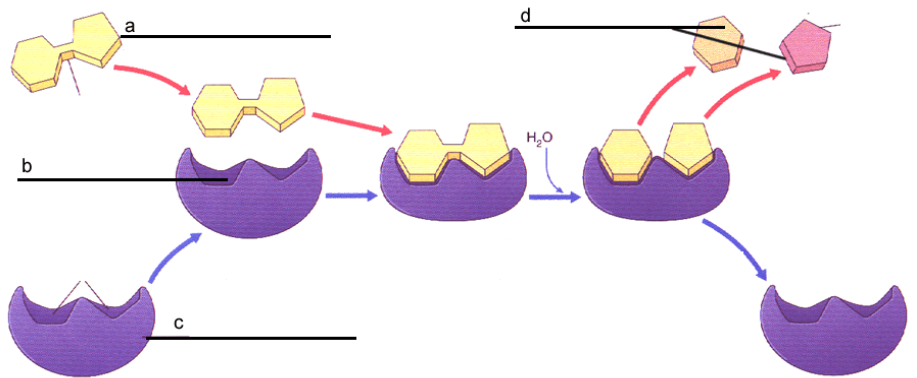
Now answer the following questions:

1. What happens to chemical bonds during chemical reactions? How does this differ between the products and the reactants?
2. What are enzymes and how are they important to living things?
3. Explain in detail the role of carbonic anhydrase in your body.
4. Describe the role of energy in chemical reactions.
5. Explain 2 factors that can influence enzyme function.
6. Draw and explain the enzyme substrate complex.

Label the diagram

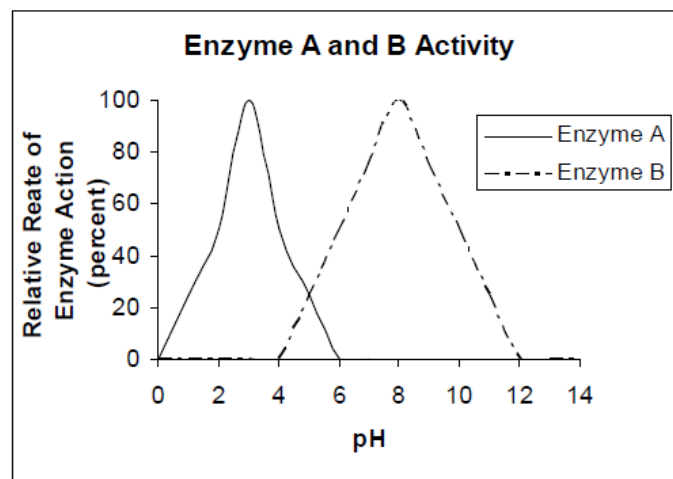
Word Bank

Active Site	Enzyme
Product	Substrate



pH and Enzyme Activity

Experiments were designed to study the effect of pH on the rate of enzyme action for 2 different enzymes found in animals, Enzyme A and Enzyme B. Enzyme A is found in the stomach and digests meats. Enzyme B is found in the intestine and digests facts. Use the graph to answer the following questions



1. At what pH is Enzyme A working at its maximum rate?
2. Since Enzyme A is found in the stomach, what is the probable pH of the stomach?
3. At what pHs does Enzyme A not work?
4. At what pH is Enzyme B working at its maximum rate?
5. Since Enzyme B is found in the intestine, what is the probable pH of the intestine?
6. If Enzyme A were produced in the intestine, would this enzyme still carry out its usual function of digestions? Explain.