Enzymes – Biological Catalysts

Georgia Performance Standard

SB1 Students will explain the nature of the relationships between structures and functions in living cells.

b. explain how enzymes function as catalysts.

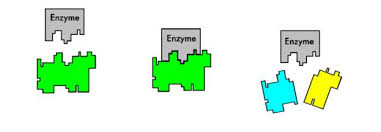
Enzymes

Use the following terms to complete the sentences below: active site, substrate, catalyst, protein, activation energy

An enzyme is a an example of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (which is one of the four macromolecules). Enzymes are classified as biological \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ because the speed up chemical reactions in living organisms by lowering the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ required to start a reaction. An enzyme only binds to a specific \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ at the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ or location on the enzyme where substrate fits.

|  |  |
| --- | --- |
| Common Characteristics of Enzymes | Answer Column |
| Are effected by (3 things) |  |
| Usually end with |  |
| Role within living things |  |
| Analogy |  |

Label the following diagram with these key terms: substrate(s), reactant(s), product(s), active site (use images from your text book for guidance).

[](http://www.google.com/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&docid=Iiu9EQ9AO5mq4M&tbnid=v6hgBwZSusNiPM:&ved=0CAUQjRw&url=http://www.alken-murray.com/BioInfo2-02.htm&ei=a1D6UuXxC6ri0wG0voGYCw&bvm=bv.61190604,d.dmQ&psig=AFQjCNFIdW9G4D0d9YsxXQTqAskuR_sniQ&ust=1392222641718869)