

Complete the following assignment after watching the animation on the lecture.

Enzymes are proteins (some non-proteinaceous groups).

Enzymes function as catalysts (speed up or slow down chemical reactions but cannot change path).

Label the enzyme, substrate, active site, and product in the following figure representing enzyme catalysis.

The model used to describe enzyme activity is known as the induced-fit (lock-and-key) model.

Enzyme activity can be regulated by other molecules. Molecules that decrease or stop enzyme activity are called inhibitors, while molecules that stimulate or increase enzyme activity are called activators.

A molecule that inhibits enzyme activity by binding to its active site is called a competitive inhibitor, while a molecule that inhibits enzyme activity by binding to a site other than the active site (like a regulatory site) is called a non-competitive inhibitor.

An enzyme molecule (pathway) may be halted when an end product inhibits one of the early enzymes in the pathway. This type of inhibition is called feed-back (back) inhibition.