

Enzymes

9th Grade

Biological catalysts, and the two things that destroy them.



Enzymes are proteins that speed up reactions without being used up. Each one has a specific shape that fits only its own substrate.

- The active site fits one substrate — the lock and key model.
- Enzymes are not consumed; one molecule works repeatedly.
- Each has an optimum temperature and pH.
- Too hot or the wrong pH and the shape changes permanently.
- A denatured enzyme cannot recover — the change is irreversible.

LOOK FOR IT

Amylase in saliva breaks starch into sugar. It stops working in the stomach's acid.

Denatured is not the same as 'killed'. Enzymes were never alive; their shape simply changed.