

Biology students investigated various human digestive enzymes. The table below summarizes the functions of several different digestive enzymes.

Enzyme	Function
salivary amylase	begins to break down starch into smaller polysaccharides or the disaccharide maltose
pepsin	begins to break down proteins into small polypeptides
pancreatic amylase	continues to break down starch and smaller polysaccharides into disaccharides
lipase	breaks down fats into glycerol, fatty acids, or glycerides
aminopeptidase	breaks down small polypeptides into amino acids

The students conducted experiments to study digestive enzyme activity. In the first experiment, the students observed the rate at which salivary amylase breaks down starch (the substrate) in solutions with different pH values. The students then performed the same type of experiment with pepsin. The graph below shows the students' results for the two experiments.

Pepsin and Salivary Amylase Activity at Different pH Values

