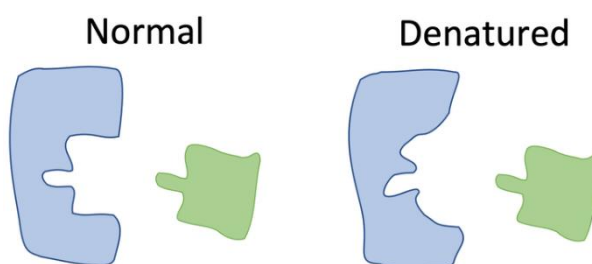


Lower 5 pupils have been studying the effect of pH on enzymes



This week, Lower 5 pupils have been learning all about enzymes of the digestive system. Having drawn models to represent the lock and key mechanism of enzyme action, we discussed how enzymes work best at specific pH values (their optimum pH). If the pH is increased or decreased either side of this optimum, the active site of the enzyme can start to change shape. The shape can become so different that the substrate can no longer bind to it; we say that the enzyme has become denatured.

During our required practical, we explored the effect of pH on the rate of an enzyme-controlled reaction, using starch and amylase enzyme. Samples of the reaction mixture were taken at 1-minute intervals and added to a drop of iodine solution in a spotting tile. The pupils timed how many minutes it took for the blue/black coloration to disappear, as shown below. This was repeated at a range of different pH values. They worked well together in their groups to collate their results and really seemed to enjoy the practical.

Mrs Jennifer Yeomans