

# MYP 4 UNIT 2 ASSIGNMENT

Reference: MYP BY CONCEPT 4&5; HODDER EDUCATION BIOLOGY, Page 45

## ACTIVITY: Enzyme poster

### ■ ATL

- Communication skills: Make effective summary notes; Organize and depict information logically

Your task is to produce a poster about enzymes.

Points to cover:

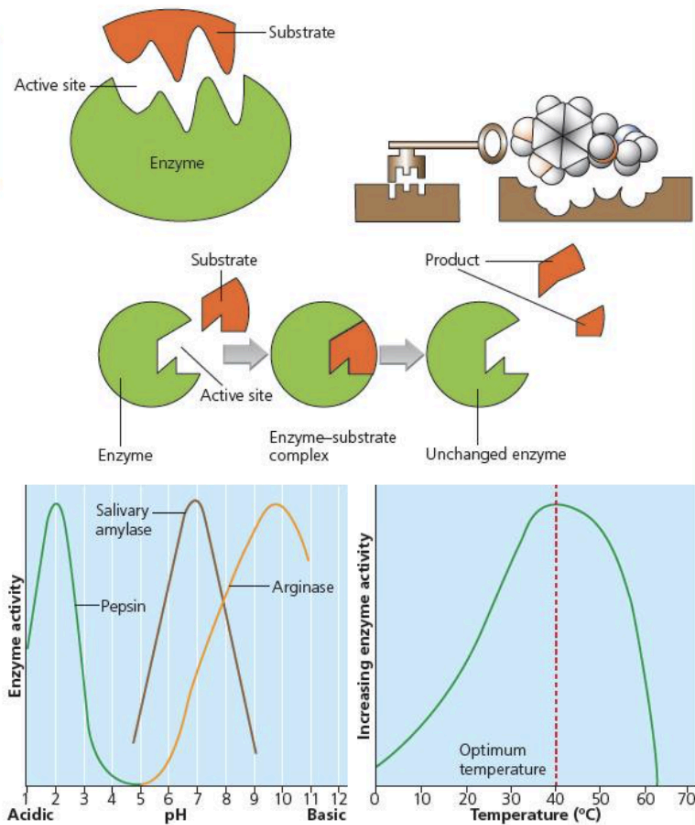
- What type of biological molecule are enzymes made of?
- Are all enzymes the same shape? If not, why not? (Think about what you know about the type of biological molecule they are made from.)
- What is special about enzymes (e.g. what properties do they have)? (They are known as biological catalysts – what does this mean?)
- Why is the shape of an enzyme important?
- What is the 'lock-and-key' hypothesis? A diagram may help you to describe this ...

Words to use: enzyme, substrate, enzyme–substrate complex, products, active site.

- What factors affect how well (or badly) enzymes work? There are two main factors for you to describe.
- How are enzymes used in respiration and photosynthesis?
- Can you find out anything else about enzymes? (For example, enzymes of digestion.)
- Make sure you explain how the structure of enzymes relates to their function.

### Enzyme picture bank

Use these diagrams to help you make your poster:



■ Figure 2.29 Enzyme picture bank

## EXTENSION

Certain chemicals can inhibit the action of enzymes. There are two types – competitive inhibitors and non-competitive inhibitors. Find out about these different types of inhibitors: **describe** and **explain** how they work and then add notes about them to your enzyme poster.

### ◆ Assessment opportunities

- ◆ In this activity you have practised skills that are assessed using Criterion A: Describe and explain scientific knowledge.