

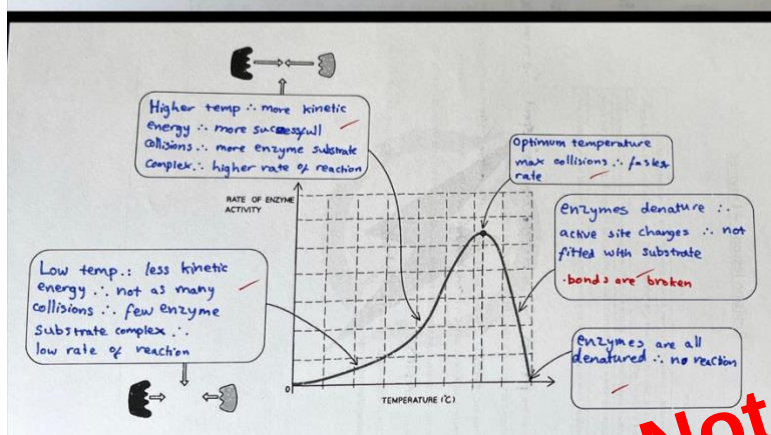
Paper 1

2.10	understand the role of enzymes as biological catalysts in metabolic reactions
2.11	understand how temperature changes can affect enzyme function, including changes to the shape of active site
2.12	practical: investigate how enzyme activity can be affected by changes in temperature
2.13	understand how enzyme function can be affected by changes in pH altering the active site

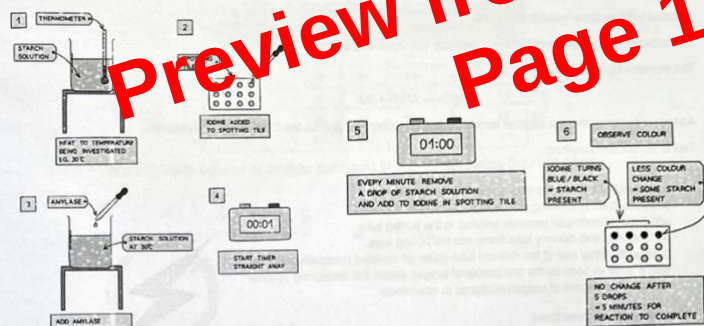
Paper 2

2.14B	practical: investigate how enzyme activity can be affected by changes in pH
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- Enzymes are proteins that act as biological catalysts to speed up the rate of a chemical reaction without being changed or used up themselves
- Enzymes are specific to one type of substrate, as the active site of the enzyme, where the substrate attaches, is a complementary shape to the substrate
- When the substrate moves into the enzyme's active site, they become known as the enzyme-substrate complex
- After the reaction has occurred, the products leave the enzyme's active site and it is free to take up another substrate



Core practical – amylase and starch



Investigating the effect of temperature on the activity of amylase

- Independent variable? temp of starch solution
- Dependent variable? time to break down starch
- Control variables? amount ∴ volume of amylase
don't write 'amount' ∴ volume of starch solution
 ∴ pH ∴ time intervals