

WJEC England Biology

GCSE

SP1.3A - Enzymes

Flashcards



Write the word equation for the action of amylase (including the substrate and product).



Write the word equation for the action of amylase
(including the substrate and product).

Starch → Maltose



How is the rate of amylase activity measured?



How is the rate of amylase activity measured?

Testing a drop of the enzyme substrate mixture at fixed time intervals with iodine solution to find the time taken for the iodine solution to remain brown.

Calculate rate = $1/\text{time taken}$.



What is indicated by the iodine solution remaining brown when tested?



What is indicated by the iodine solution remaining brown when tested?

All the starch has been hydrolysed by amylase.



Why should the solutions be left in a water bath for a few minutes before mixing together?



Why should the solutions be left in a water bath for a few minutes before mixing together?

To allow the temperature to equilibrate.



How can the rate be more accurately determined?



How can the rate be more accurately determined?

By testing the presence of starch in the mixture at smaller time intervals.



How can the estimate of the optimum temperature be improved?



How can the estimate of the optimum temperature be improved?

Repeat the practical at smaller intervals of temperature around the estimated optimum temperature.



State a hazard and a safety precaution involved in this practical.



State a hazard and a safety precaution involved in this practical.

Amylase solution is an irritant, wear eye protection and wash off immediately if it comes in contact with skin.

