

AQA Biology GCSE

RP5 - Enzymes

Flashcards

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Describe how you would investigate the effect of pH on the rate of reaction of the amylase enzyme



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- Place starch solution, amylase solution and buffer solution in a water bath at 25°C for a few minutes
- Combine solutions and add a drop of the mixture to iodine solution on a tile
- Add the mixture to iodine solution drops on the tile at fixed 30s intervals until the iodine solution remains brown (does not turn blue-black)
- Calculate the rate of reaction using $1 / \text{time taken for solution to remain brown}$
- Repeat at different pH values using different buffer solutions
- Plot graph of rate (y) against pH (x)



Which enzyme catalyses the breakdown of starch in the human digestive system?



Which enzyme catalyses the breakdown of starch in the human digestive system?

Amylase - catalyses breakdown of starch to maltose



Why must samples be left in the water bath before solutions are mixed?



Why must samples be left in the water bath before solutions are mixed?

To allow temperature to equilibrate



What is a buffer solution?



What is a buffer solution?

A solution which can resist changes in pH

