Enzymes

IGCSE Biology · Vocabulary in context

Word	Example
catalyst /ˈkætəlɪst/	A **catalyst** speeds up a reaction without being used up.
rate /reɪt/	The **rate** of reaction is faster when it is warm.
chemical reaction /ˈkemɪkl rɪˈækʃn/	Digestion is a **chemical reaction**.
enzymes /ˈenzaɪmz/	**Enzymes** speed up reactions in the body.
proteins /ˈprəʊtiːnz/	Meat, eggs and beans are rich in **proteins**, which are made from amino acids.
metabolism /məˈtæbəlɪzəm/	**Metabolism** is all the chemical reactions in a living thing.
active site /ˈæktɪv saɪt/	The substrate fits into the **active site** of the enzyme.
molecule /ˈmɒlɪkjuːl/	A water **molecule** has two hydrogen atoms and one oxygen atom.
substrate /ˈsʌbstreɪt/	Starch is the **substrate** of amylase.
complementary /ˌkɒmplɪˈmentəri/	The active site has a **complementary** shape to the substrate.
enzyme-substrate complex /ˈenzaɪm ˈsʌbstreɪt ˈkɒmpleks/	The substrate joins the enzyme to form an **enzyme-substrate complex**.
products /ˈprɒdʌkts/	Glucose molecules are the **products** of starch digestion.

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specific /spəˈsɪfɪk/	Enzymes are **specific**: each one works on only one substrate.
temperature /ˈtemprɪtʃə/	The thermometer shows the water's **temperature**.
kinetic energy /kɪˈnetɪk ˈenədʒi/	A fast car has a lot of **kinetic energy**.
collisions /kəˈlɪʒnz/	More **collisions** between enzyme and substrate speed up the reaction.
optimum temperature /ˈɒptɪməm ˈtemprɪtʃə/	Human enzymes have an **optimum temperature** of about 37 °C. 37 °C
denatured /ˈdenətʃəd/	Heat changes the shape of a **denatured** enzyme.
spotting tile	Put a drop of iodine in each hole of the **spotting tile**.
water bath	Heat the test tube in a **water bath** at 80 °C. 80 °C
catalase /ˈkætəleɪz/	**Catalase** breaks down hydrogen peroxide into water and oxygen.
variable /ˈveərɪəbl/	A **variable** stores a value that can change.
independent variable /ˌɪndɪˈpendənt ˈveərɪəbl/	The **independent variable** is the one you change.
dependent variable /dɪˈpendənt ˈveərɪəbl/	The **dependent variable** is the one you measure.
controlled variable /kənˈtrəʊld ˈveərɪəbl/	pH is a **controlled variable**: keep it the same. pH
buffer solutions	Use **buffer solutions** to keep the pH steady. pH

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control /kən'trəʊl/	Use boiled enzyme as a **control**.

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