

5. Enzymes

Starter Quiz · 课前小测

IGCSE Biology

Name: _____ Score: _____

1. An enzyme is a biological catalyst, which means it:

- ☐ speeds up a reaction without being used up
- ☐ is used up in the reaction
- ☐ slows reactions down
- ☐ is a type of sugar

2. The temperature at which an enzyme works fastest is its:

- ☐ optimum temperature
- ☐ denaturing point
- ☐ freezing point
- ☐ boiling point

3. Enzymes are made of:

- ☐ protein
- ☐ starch
- ☐ fat
- ☐ glucose

4. If an enzyme gets too hot, it:

- ☐ denatures and stops working
- ☐ speeds up forever
- ☐ turns into a sugar
- ☐ works at the same rate

5. The part of an enzyme where the substrate binds is the:

- ☐ active site
- ☐ nucleus
- ☐ membrane
- ☐ product

6. The optimum temperature of most human enzymes is about how many °C?

7. Each enzyme is specific to one type of substrate.

- ☐ True ☐ False

8. The model where only a matching substrate fits an enzyme is the _____-and-key model.

9. A denatured enzyme can recover its shape once it cools down.

- ☐ True ☐ False

10. Moving the pH far from an enzyme's optimum will:

- ☐ slow or stop the enzyme
- ☐ always speed it up
- ☐ have no effect
- ☐ turn it into a substrate

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1. **speeds up a reaction without being used up**

Catalysts speed up reactions and are reusable.

2. **optimum temperature**

The optimum is where the rate is highest.

3. **protein**

Enzymes are proteins.

4. **denatures and stops working**

High temperature denatures the enzyme, destroying its active site.

5. **active site**

The substrate fits into the active site.

6. **37**

Human body temperature is about 37 °C.

7. **True**

Only a matching substrate fits the active site.

8. **lock**

Lock-and-key explains enzyme specificity.

9. **False**

Denaturing is permanent; cooling does not restore the active site.

10. **slow or stop the enzyme**

The wrong pH changes the active site shape.