

Name:

Date:

Period:

Do Now # 1.12

Homework # 1.12

Aim: What factors affect the rate of enzyme action?

Vocabulary: (3)

1. Optimum

3. coenzymes

5.

7.

2. denaturation

4.

6.

8.

How do we describe the actions of an enzyme?

1. Small amounts of an enzyme can affect large quantities of substrates.

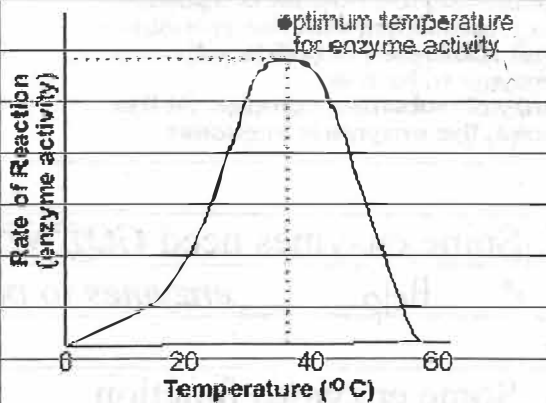
2. Enzymes work best at certain temperature.

• OPTIMUM TEMPERATURE

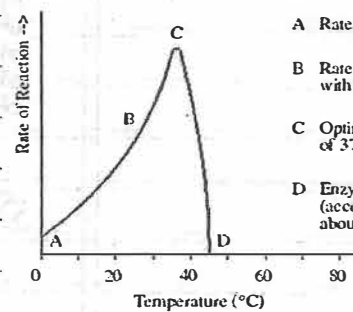
Temperature of high effectiveness.

• DENATURATION

Enzymes lose its effectiveness.

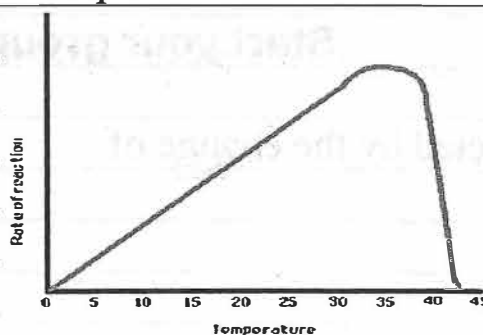


PREDICTED RATES OF REACTION



- A Rate of reaction very slow
- B Rate of reaction increases with temperature
- C Optimum temperature of 37°C
- D Enzyme denatured at (according to books) about 45°C

Example:



optimum temperature is:

35°

starts to denature at:

40°

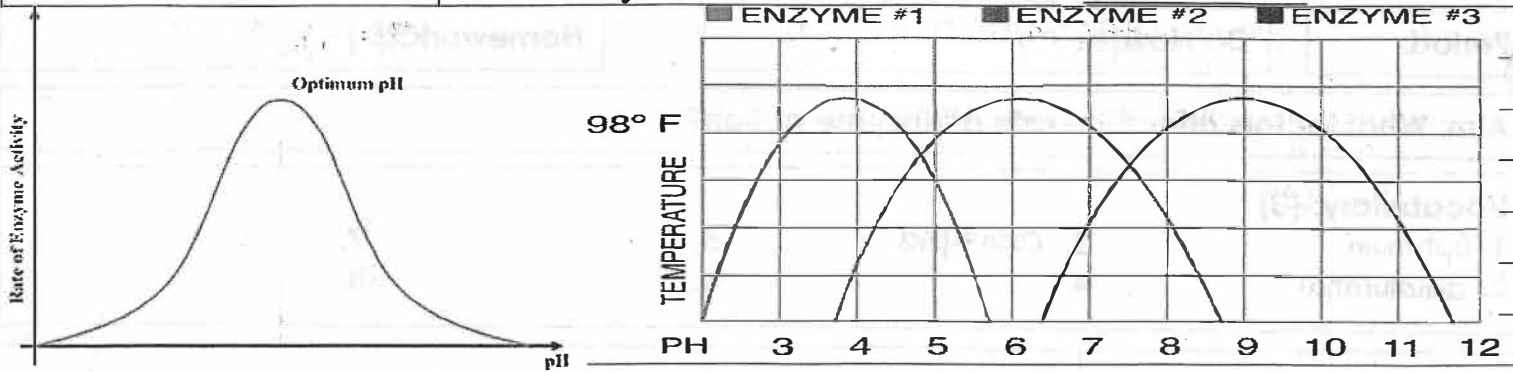
denatured at:

44°

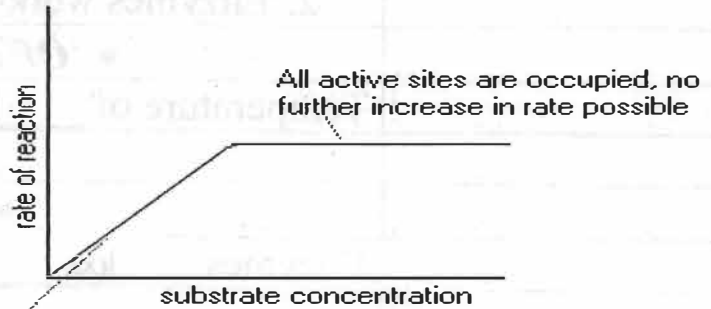
Questions/Main Ideas:

Notes:

3. Enzymes work best at certain



4. The rate of enzyme controlled reactions depends on the concentration (amount) of substrates and enzymes.



Increasing the number of substrate molecules increases the probability that substrate will collide with enzyme to form an enzyme-substrate complex. At this point, the enzyme is in excess

5. Some enzymes need **COENZYMES** in order to work.
* Help enzymes to perform their function.

6. Some enzymes function inside the cell and others outside the cell.

Start your group activity!

Summary: 2 points

The action of enzymes are affected by the change of

One fact is

Another fact is

Enzymes are important because