

Enzymes (Generally Speaking)

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Trackstar #: 370014

Answer the following questions using the website found in the trackstar listed above.

Website #1:

Click on "Enzymes: The Basics"

1. Enzymes are _____ that serve as _____. They speed up/slow down _____, but remain _____.

Click "Next."

2. The _____ and a regulatory region can be found on a typical enzyme.

3. What is the purpose of the active site?

Click "Next."

4. Define "substrate."

5. Each enzyme acts on a _____ substrate.

Click "Next."

6. The _____ fit model describes the interaction between the enzyme and the substrate.

7. The substrate induces a more _____ fit of the active site around it.

Click "Next."

8. Describe what happens when lactose binds with the enzyme lactase.

Website #2:

9. Catalysts are substances that _____ chemical reactions.

Name _____

Period ____

_____ catalysts are called _____.

10. Reactions with enzymes are up to _____ times faster than those without enzymes.

11. An _____ - _____ complex forms when the enzyme's active site binds with the substrate like a _____ fitting in a _____.

12. Because the enzyme does not form chemical bonds with the substrate, it remains _____. As a result, the enzyme molecule can be _____.

Website #3:

13. All chemical reactions require _____ to break chemical bonds and begin the reaction.

14. Enzymes _____ the barriers that normally prevent chemical reactions from occurring by _____ the required activation energy.

15. Enzyme names end with the _____ suffix, unless they were named _____ to adoption of the *-ase* naming system.

16. For example, _____ is the enzyme that breaks down the substrate _____.

Website #4:

17. List the six properties of enzymes. You can paraphrase them if you want.

- Enzymes
- They
- They
- Each
- They
- They

Name _____

Period ____

Website #5:

18. One of the earliest written references to enzymes is found in _____ Greek epic poems dating from about _____, where mention is made of the use of enzymes in the production of _____.

19. The Japanese have also been using _____-occurring enzymes for more than a thousand years in the production of fermented products such as _____.

On the left hand side, in the menu, list three different ways enzymes are used today.

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-
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Website #6:

Watch the animation and draw the example of the enzyme and substrates, labeling them both.