

## More Enzymes Worksheet

1. Fill in the blanks with the word(s) that make the statement true.
  - a. Enzymes are biological \_\_\_\_\_ that speed up chemical reactions in living organisms.
  - b. Enzymes are protein molecules, which are made up of long chains of \_\_\_\_\_.
  - c. The \_\_\_\_\_ is where the enzyme catalyzed reaction takes place.
  - d. The name of an enzyme ends in \_\_\_\_\_.
2. An experiment was performed to determine the effects of temperature on enzyme activity. Samples of salivary amylase and starch were placed into two test tubes. Salivary amylase is an enzyme that breaks down starch into maltose. Its optimum temperature for activity is around 37°C.
  - a. What do you think happened to the rate of reaction when the temperature of the first test tube was increased from room temperature to 37°C?
  
  
  
  
  
  
  
  
  
  
  - b. What do you think happened to the rate of reaction when the temperature of the second test tube was decreased from room temperature to 0°C?
3. Using the word bank below, indicated the nutrient next to the enzyme that breaks it down.

<b>fats    sucrose    starch    proteins    carbohydrates    hydrochloric acid</b>
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- a. Carbohydrase is an enzyme that breaks down \_\_\_\_\_
- b. Protease is an enzyme that breaks down \_\_\_\_\_
- c. Lipase is an enzyme that breaks down \_\_\_\_\_
- d. Amylase is an enzyme that breaks down \_\_\_\_\_

## Answers

1.

- a. catalysts
- b. amino acids
- c. active site
- d. -ase

2.

- a. the activity of the enzyme will increase as it gets closer to the optimum temperature
- b. the activity of the enzyme will decrease as the temperature decreases.

3.

- a. carbohydrates
- b. proteins
- c. fats
- d. starch