

### CHAPTER 8.3—8.5: All About Enzymes

1. Define activation energy.

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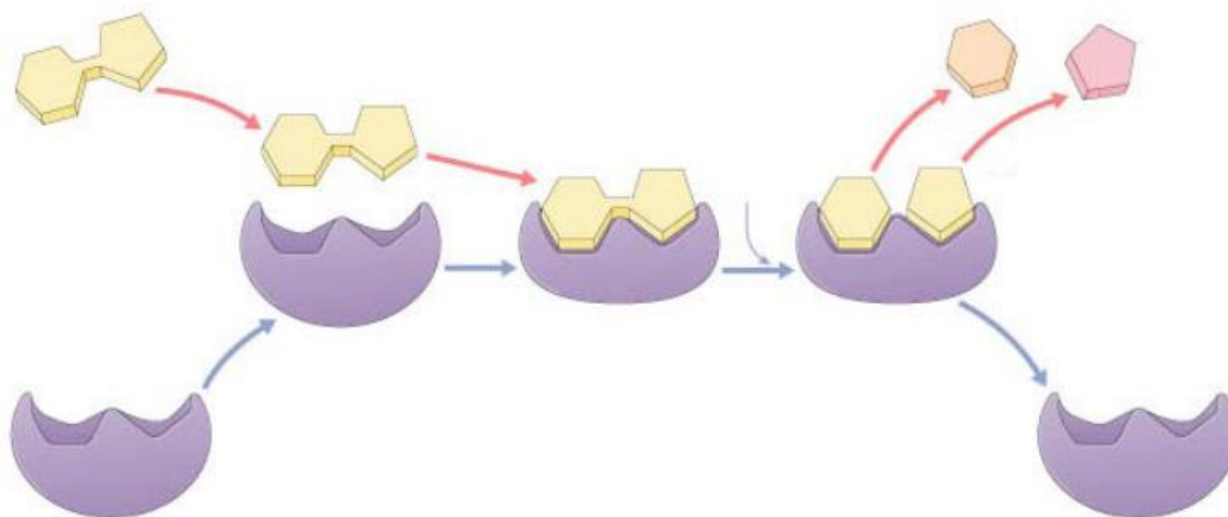
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2. How do enzymes affect the energy profile?

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3. Use the following diagram to explain the catalytic enzyme cycle



4. Explain the induced fit model of enzyme action.

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5. Why are enzymes said to be specific?

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Name: \_\_\_\_\_

6. Explain how temperature and pH influence the rate of enzyme reactions:

a. temperature \_\_\_\_\_

\_\_\_\_\_

b. pH \_\_\_\_\_

\_\_\_\_\_

c. enzyme concentration \_\_\_\_\_

\_\_\_\_\_

d. substrate concentration \_\_\_\_\_

\_\_\_\_\_

e. salinity \_\_\_\_\_

\_\_\_\_\_

7. How do competitive and noncompetitive inhibitors differ in their enzyme interactions?

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8. What happens during allosteric inhibition?

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9. Explain the role of cofactors.

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10. Describe feedback inhibition.

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