

Name _____

Date _____

Visual Concepts 2.4: Chemical Reactions

A. Activation Energy and Chemical Reactions

Go To: https://my.hrw.com/content/hmof/science/high_school_sci/na/gr9-12/hmd_bio_9780547688442_/nsmedia/visualconcepts/75335.htm

1. What is activation energy?

Click “Play”

2. What are three sources of activation energy?
3. According to the video clip, how does exothermic energy differ from endothermic energy base on its activation energy?

B. Equilibrium 1

Go To: https://my.hrw.com/content/hmof/science/high_school_sci/na/gr9-12/hmd_bio_9780547688442_/nsmedia/visualconcepts/75230.htm

1. What is equilibrium?

Click “Play”

2. List three things that can cause a change in equilibrium.

C. Equilibrium 2

Go To: https://my.hrw.com/content/hmof/science/high_school_sci/na/gr9-12/hmd_bio_9780547688442_/nsmedia/visualconcepts/80396.htm

1. In chemistry, how is equilibrium defined?

Click “Play”. Select High or Low Bandwidth.

2. What is the direction of water movement when water is added to the tank on the left?

3. What is meant by the statement, "*equilibrium has shifted to the right*"?

D. Enzyme

Go To: https://my.hrw.com/content/hmof/science/high_school_sci/na/gr9-12/hmd_bio_9780547688442_/nsmedia/visualconcepts/60034.htm

1. What are enzymes?

2. What are substrates?

3. Enzymes are changed during chemical reaction. True or False. [Circle One]

4. Enzymes are destroyed during a chemical reaction. True or False. [Circle One]

5. Enzymes can act on any substrate. True or False. [Circle One]

Click "Play".

6. What is the "Lock and Key Model" of enzyme action?

E. Factors Affecting Reaction Rate

Go To: https://my.hrw.com/content/hmof/science/high_school_sci/na/gr9-12/hmd_bio_9780547688442_/nsmedia/visualconcepts/75339.htm

1. What is Reaction rate?

2. Identify five factors that increase reaction rate:

a.

b.

c.

d.

e.

Click "Play". Select High or Low Bandwidth.