Lesson 4: What is thermal energy?

Before You Read Lesson 4

Read each statement below. Place a check mark in the circle to indicate whether you agree or disagree with the statement.

	Agree	Disagree
1. When matter is warmed, it gains thermal energy.	❍	❍
2. Thermal energy can cause matter to experience a change of phase.	❍	❍
3. Thermal energy will always flow from cooler objects to warmer objects.	❍	❍
4. Conduction is the transfer of heat by a moving liquid.	❍	❍

After You Read Lesson 4

Reread each statement above. If the lesson supports your choice, place a check mark in the *Correct* circle. Then explain how the text supports your choice. If the lesson does not support your choice, place a check mark in the *Incorrect* circle. Then explain why your choice is wrong.

	Correct	Incorrect
1. _____	❍	❍
_____		
2. _____	❍	❍
_____		
3. _____	❍	❍
_____		
4. _____	❍	❍
_____		

Notes for Home: Your child has completed a pre/post inventory of key concepts in the lesson.
Home Activity: Have your child compare and contrast conduction, convection, and radiation.

Name _____

Use with pages 462–465.

Reviewing Terms: Matching

Match each definition with the correct term. Write the letter on the line next to the definition.

_____ **1.** transfer of heat between objects that are in contact

_____ **2.** the total of all the kinetic and potential energy of the atoms of an object

_____ **3.** the transfer of heat by electromagnetic waves

_____ **4.** the transfer of heat by a moving liquid or gas

a. conduction
b. convection
c. radiation
d. thermal energy

Reviewing Concepts: Sentence Completion

Complete each sentence with the correct word.

_____ **5.** _____ is a measure of thermal energy. (Light, Temperature)

_____ **6.** When the kinetic energy of atoms increases, thermal energy _____. (increases, decreases)

_____ **7.** A liquid becomes a _____ when its particles have absorbed enough energy to escape the surface. (gas, solid)

_____ **8.** Melting ice in your hand is an example of _____. (conduction, convection)

Applying Strategies: Predict

Use complete sentences to answer question 9. (2 points)

9. Predict which way thermal energy will flow when you hold a cup with a hot drink in your hands. Explain.

_____

_____

_____