

## Thermal Energy and Heat

**The Transfer of Heat** (pages 183–187)**How Is Heat Transferred?** (pages 184–185)

**Key Concept:** Heat is transferred by conduction, convection, and radiation.

- There are three ways that heat can move: conduction, convection, and radiation.
- **Conduction** is heat moving from one particle to another. A metal spoon in hot soup gets warm because of conduction. Conduction happens between objects that are touching.
- **Convection** is heat transfer in a moving fluid. Gases and liquids are fluids. When a fluid is heated, it moves. The moving fluid transfers heat.
- **Radiation** is energy transfer by electromagnetic waves. The sun's energy travels to Earth by radiation. Matter is not needed for the transfer of energy by radiation.

Answer the following questions. Use your textbook and the ideas above.

1. Fill in the blanks in the table about heat transfer.

Heat Transfer	
Process	How Heat Moves
a. _____	in a moving fluid
b. _____	from one particle to another
c. _____	by electromagnetic waves