

Heat—Lesson Plan One

Investigating Heat Transfer

Standard VI: Heat, light, and sound are all forms of energy. Heat can be transferred by radiation, conduction, and convection. Visible light can be produced, reflected, refracted, and separated into light of various colors. Sound is created by vibration and cannot travel through a vacuum. Pitch is determined by the vibration rate of the sound source.

Objective 1: Investigate the movement of heat between objects by conduction, convection, and radiation.

Indicator b: Describe the movement of heat from warmer objects to cooler objects by conduction and convection.

Indicator e: Design and conduct an investigation on the movement of heat energy.

A. Literary Reading

Materials:

1. Literacy Reading—Heat Transfer (From State Science Teacher Resource Book, 2006 page 6-16)
2. Melting Ice Worksheet
3. Worksheet, “The Melting Effect”
4. Ziploc Bag for each student
5. Ice cubes
6. Paper towels

Directions

1. Read about **Heat Energy** only on page 6-16a
 - a. Discuss in general what heat energy is and how it moves.
2. Do experiment #1 Melting Ice Using Heat Transfer (From Utah Elementary Core Academy, 2004, page 7-5.)
3. Answer the questions about the ice melting activity.
4. Have the students walk around either inside or outside and feel things to experience heat transfer. It can either be things that are warm that are transferring into their hands or things that are cold where heat is transferring out of their hands.