

Heat—Lesson Five

Insulation Experimentation

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 a: Compare material that conducts heat to materials that insulate the transfer of heat energy.

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

Materials:

1. Insulation Experimentation Lesson Plan (Taken from the Elementary CORE Academy 2008, page 7-16.)
2. List of other materials needed are listed in the activity.

Directions:

1. Read the background knowledge of the experiment for yourself.
2. Do the Invitation to Learn “Which Uses more Energy?”
3. Follow the directions beginning with the Instructional Procedure.
4. Have the students fill out the Insulation Table found at the back of the lesson after or during the lesson.
5. Have the students do the graph.
6. Have the student answer the questions about their experiment.