



SOLAR ENERGY FOR THE CLASSROOM



Provided by Pierce Cedar Creek Institute
www.cedarcreekinstitute.org

Activity Overview

Grade Level: 6-8

General Description

Students will play a game by answering questions about home energy habits using play money that will be distributed based on their responses. Teachers are encouraged to discuss the significance of each question and reasons why their responses resulted in giving or receiving money.

Learning Outcome

Students will understand how their energy habits at home have a financial cost in addition to an environmental cost.

Science Content Standards

Content Area: Constructing New Scientific Knowledge (C) I.1.1

Standard: All students will generate scientific questions about the world based on observation.

Content Area: Reflecting on Scientific Knowledge (R) II.1.5

Standard: All students will develop an awareness of and sensitivity to the natural world.

Content Area: Ecosystems (LEC) III.5.6

Standard: All students will describe ways in which humans alter the environment.

Content Area: Geosphere (EG) V.1.5

Standard: All students will explain how technology changes the surface of the earth.

Utility Bill Paying Game

Materials

- 2 envelopes per student, 1 marked “me” and one marked “utility”
- Play energy money (provided in activity) -\$100 per student. Make a copy of each hand-out (one per student).
- One copy of Utility Bill Paying Game questions (provided in activity)

Methods

1. Have students cut out the money sheets. Each student should have \$100 made up of 20-\$1, 10-\$5, and 3-\$10. Students can put the money into piles prior to starting the activity.
2. Give each student one: “me” envelope and one “utility” envelope.
3. Tell students that they have just gotten paid \$100, and whatever they and their family don’t spend on energy at home, they can use to buy the things they *want*. Read each question to the group and have students answer the questions honestly. Depending on their answer, the students will put the required amount of money in either their “me” envelope or in their “utility” envelope. If a student runs out of money before the end of the game, they may borrow from his “me” envelope to pay the “utility” bill.
4. At the end of the game, count the money in each envelope to show the students how much their energy habits are costing them. Discuss how students could get more in their “me” envelopes.

Discussion/Assessment

- Add up the money in each envelope, don’t count any money that is in your hand. Ask: Who has the most money in their “me” envelope? Who has the most money in their “utility” envelope?
- Organize a discussion with students about how they could get more in their “me” envelope. (Use the information provided with the questions). If this were real money, and students could keep any money that they could save, what would they do?

Source: This activity was adapted from a *Watts on Schools* activity.
Credit: “Let’s Get Energized” (1996) California Energy Commission.