



Teacher Guide

A group activity to enhance math skills and reinforce energy knowledge.

Background

Energy Math Challenge encourages students to problem solve in groups using current energy data.

There are four elementary questions for students to answer in groups of three.

Time

One 60-minute class period

Materials

- One copy of each question (pages 7-10) for each group of three students
- Measuring tool for each group

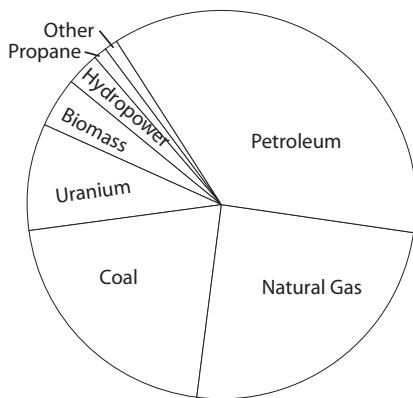
Preparation

- Divide the class into groups of three students. Each group should have one strong math student.
- Duplicate a set of the four questions on pages 7-10 for each group.
- Decide what measuring tool you want the students to use in Problem 4. Cuisenaire rods are recommended if available.

Procedure

Place students in groups of three and give them one question at a time, or one question a day for four days. For Problem 4, explain the method of measurement before the students begin. Discuss each question with the students after completion.

Answer Key

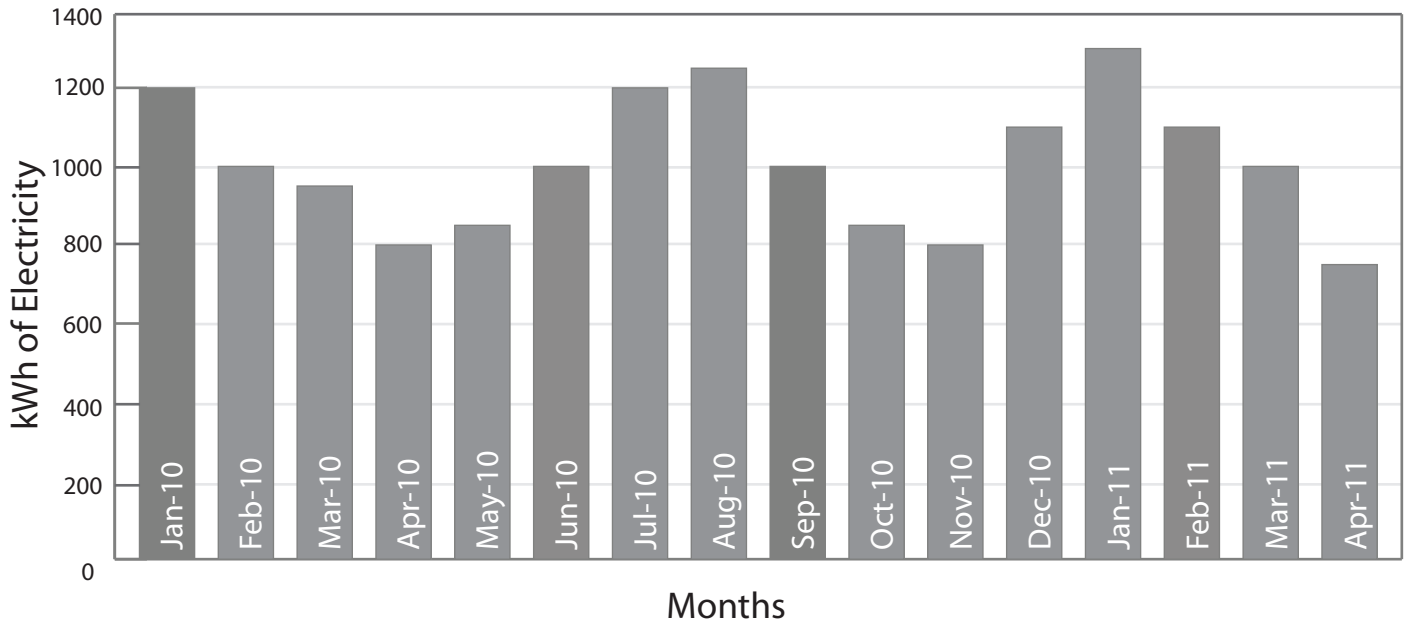


	1	2	3	4	5	Bonus
Problem 1	Petroleum	8%	92%	83%	92%	—
Problem 2	Jan 11	Apr 11	Aug 10	100 kWh	12,000 kWh	—
Problem 3	Hybrid Midsize	Pick-Up	70 mi	81 mi	2 gal	500 miles
Problem 4	3 gal	3 gal	3 gal	No, it needs 8 gal	4 gal	6.5 gal



Problem 2: Electricity Use Chart

This is a graph of the Smith Family's electricity use for 2010 and part of 2011 by month. The Smiths have an all-electric house.



Directions

Using the graph, answer these questions.

1. In what month and year did the family use the most electricity?

2. In what month and year did the family use the least electricity?

3. What summer month and year do you think was the hottest?

4. How much more electricity did the family use in Jan. 2011 than in Jan. 2010?

5. How many kWh of electricity did the family use in 2010?
