Return To Secondary Lesson Plans

Title: The Geologists' Dilemma
Level: Middle/Secondary
Day/Time: One class period
KERA Goals: 1.5, 1.9, 2.2, 2.4, 2.7, 2.13, 6.1, 6.3
Objective:

1. Identify when a condition of scarcity exists
2. Determine that resources are limited, and thus scarce
3. List some of our chief energy sources.

Materials:

A glass jar
Beads - four different colors
Cornmeal - same quantity as beads

About 50 percent of the beads should be black, 3 percent red, 10 percent white and 37 percent blue. Since the beads represent our energy sources, which are unknown to all, do not attempt to count all the beads. Note: Any resources not found the first time are waiting to be recovered the next time the game is played.

Activity:

1. Throw the beads and cornmeal high into the air, letting them scatter over the room. Divide the class into five companies. Each of the companies will search for one of our energy resources represented by one color bead.

Company # 1: black bead (coal)
Company # 2: red bead (uranium)
Company # 3: white bead (natural gas)
Company # 4: blue bead (oil)
Company # 5: Cornmeal (solar)

Note: Do not interfere or comment if any company starts to collect all colors.

2. Allow the companies to search for one minute. Have each company count its resources. Keep the resources in separate piles. Record the totals for each group for each round on the chalkboard.

3. Start a second search for one minute. Each company must search for resources still missing. Record totals.

4. Do the same for a third one-minute round.

5. Discuss the following questions:
a. Which energy sources were easier to collect? Why? Which were the most difficult? Why?
b. What makes them easy or difficult to find? Is it the availability of the beads or is it the skill of the searchers?
c. Looking at the piles of energy from each of the different rounds, which is greater? Why? Which round is the smallest? Why?
d. Did anyone collect more than one energy resource? Is it realistic to collect more than one?
e. As energy resources become more scarce and demand continues to increase, what should happen to the price or cost of energy resources?

Activity developed by:
Indiana Teachers through workshops sponsored by Indiana Council for Economic Education and Public Service of Indiana and American Coal Foundation

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