

Power for the People

Grade 6

Subject: Science

World population is increasing, causing more congestion and energy consumption. Two large populations are in the United States and the European Union. In the lesson, students will compare the use of energy in the U.S. and the EU and determine viable solutions.

Materials:

LCD projector

Laptop

Posterboard

Marker

Copies for class of *Key Facts and Figures about the EU*

Day One:

Review vocabulary terms of resources, energy, population, renewable and non-renewable resources. As terms are defined, discuss primary sources of energy (petroleum, coal, natural gas, nuclear, geothermal, hydroelectric, solar, wind).

Discuss with students about other populations and decide what their sources of energy and how each country uses energy

Day Two:

Categorize the sources of energy that were previously discussed.

Show students a comparative graph of the Primary Energy Per Person (Source: *Key Facts and Figures about the EU*). As students see these results, advise them that this is a global problem that involves the world's future.

Divide students into committees representing the EU and the United States.

Divide each committee into three groups encompassing all differentiation. Each group is responsible for creating graphs showing sources of energy and amount used by population and by country. They should also develop a graph showing trends in population, and generate a possible global solution for energy

Sources: www.eia.doe.gov

Annual Energy Review/European Environmental Agency

Days Five and Six

Committees collect, document, and analyze results. They need to include energy, transportation, and population growth. (Gifted Students prepare strategies and global energy laws into a two-page document.)

Day Seven

Simulate a World Energy Council to debate and construct the energy laws that they will globally put into effect. Both sides must present findings or facts.

Rubric:

Class participation daily grade 40%

Committee display 20%

Group presentation 20%

Accuracy 20%

NCSCOS

Science

1.06 Use mathematics to gather, organize, and present quantitative data resulting from scientific investigations: measurement, analysis of data, graphing, prediction models.

7.04 Evaluate data related to human population growth, along with problems and solutions: waste disposal, food supplies, resource availability, transportation, socio-economic patterns.

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