

Curriculum Units by Fellows of the Yale-New Haven Teachers Institute 2004 Volume IV: Energy, Engines, and the Environment

Fueling around with Energy: A Comparative Study of Conventional and Renewable Energy Use among Nations

Guide for Curriculum Unit 04.04.09 by Ralph Russo

For most of us living in the developed world, mastery of energy appears as simple as turning a key or flipping a switch. Such seemingly effortless tasks are the triumph of ingenuity. Yet their simplicity should not trivialize the progression of innovation that led us to this point in history, nor should it obscure understanding of the fundamental process by which our energy is extracted from the environment. Fueling around with Energy is an attempt to connect high school history students with realities of the environmental, economic, and political characteristics of the energy process in developed countries and the developing world. In completing this unit students will conduct a comparative study of conventional and renewable energy use in developed countries and in the developing world. The unit fits in the world history curriculum in the "Perspectives on the Present" unit offered by McDougal Littell in the Patterns of Interaction textbook. It can also be used in any twentieth century history, current events, and/or international relations class. United States history classes can incorporate this in the study of U.S. society since World War II. Science teachers may also use parts of this unit to supplement a more scientific investigation of energy called for in an earth science or integrated science class. An interdisciplinary unit can easily be crafted in the simulation activity World Energy Summit . Students can be organized to investigate, explore, and present integrated analysis combining scientific and historical data, narrative prose, and calculations. This might be ideal to use in high school freshmen cluster programs that encourage interdisciplinary activities among core subjects.

In general, this curriculum unit seeks to promote student achievement toward mastery of state and city social studies program goals. More specifically activities of the unit are planned to address New Haven Social Studies Curriculum expectations, content strands, standards, performance, principles of teaching and learning, and social studies skills. An attempt has been made to include activities that are integrative and value-based. Moreover, lessons incorporate problem solving, organizing information, effective communication, and effective collaborative work. References to the New Haven curriculum are noted throughout the unit.

(Recommended for World History and Current Events, grades 7-12.)

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