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Curriculum Units by Fellows of the National Initiative
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How Green Is Our School? Energy Conservation Challenge 2012

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by Amy Thwaite

The primary learning objective of the unit is that students know the energy resources utilized by humans, namely fossil fuels and the alternatives to fossil fuels. The unit also emphasizes the need for energy resource conservation in developing a sustainable energy future. The unit narrative outlines activities aimed at giving students an understanding of the impact of individual choices as well as institutional energy consumption habits. The student activities include a personal energy use audit as well as an investigation of the energy used by defined sectors within the school site. Students are asked to design their own personal energy conservation plans and work in teams to develop proposals for decreasing the school's energy consumption. Background instruction is provided in basic energy concepts in order to support student understanding in this and subsequent units of the course curriculum. The narrative provides suggested background content in the same sequencing as would be appropriate in delivery to the intended student audience. Variations on the culminating student projects are offered in order to permit students to develop a general or school-site specific energy conservation plan. This unit is designed with respect to instructional flexibility in the course application, grade level, and content delivery. Although the content is designed for a freshman Earth Science course, it is also appropriate for Physical and Environmental Sciences at the middle or high school levels.

(Developed for Earth Science, grade 9; recommended for Physical Science, Earth Science, and Environmental Science, Middle School and High School grades)

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