

The Personal Energy Audit Activity: Analyzing Personal Energy Use, Resource Availability, and Conservation Practices

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Session Description:

Learn about a personal energy audit activity designed to encourage students' examination, analysis, and reduction of their personal energy use.

Session Summary:

The Personal Energy Audit activity is designed to help students analyze their daily and weekly energy consumption practices over the span of a curricular energy unit. Students estimate their daily and weekly energy consumption for 37 common activities in the entertainment, communication, personal care, lighting, food preparation, cleaning, and transportation areas. The audit calculates energy consumption values converting between Kilowatt-Hours, Joules and BTUs. It also provides a monetary cost value for each activity based on national energy rates. Students use their initial audit results to analyze their energy use patterns and to synthesize ideas for energy conservation. As students revisit their audit in later lessons they identify the uses for energy (e.g. electricity generation, heating, transportation) and corresponding energy sources based on their geographic location. At the end of the energy unit, students complete the audit again to assess their energy use for evidence of change in their consumption patterns. Instructional activities focus on students' conservation efforts. Implementation findings with diverse middle school students will be shared. Adaptations for classrooms with differentiated learning needs were discussed. Activity materials, assessment tools, and teacher support material were provided for session attendees.

The Energy Audit activity is available at:

<http://www.ei.lehigh.edu/eli/energy/sequence/day2.html>