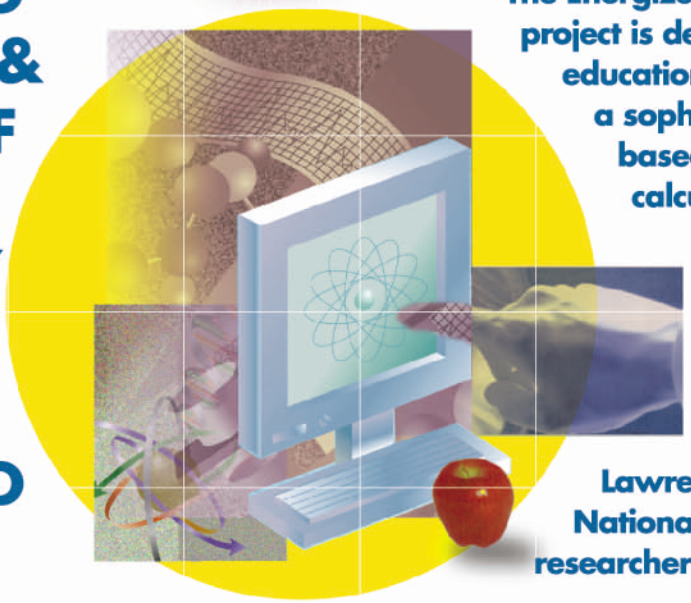
Energized Learning:

EXPLORING THE MATH & SCIENCE OF ENERGY EFFICIENCY USING A VIRTUAL WEB-BASED HOME



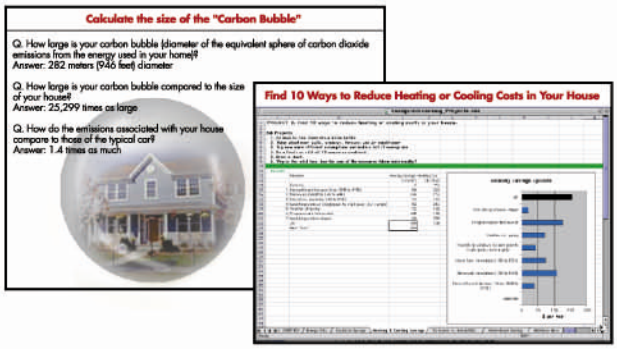
The Energized Learning project is deploying a new educational interface for a sophisticated web-based energy calculator and home energy audit toolkit, The Home Energy Saver, which was developed by Lawrence Berkeley National Laboratory researchers.

http://HomeEnergySaver.lbl.gov

Using the Energized Learning website, high school students will do projects involving household- and community-scale data gathering and analysis. They will:

- Gather physical information about residences, such as floor space, window area, building orientation, appliances, heating and cooling systems.
- Input data and run the Home Energy Saver program.
- Learn how energy use of buildings and appliances is calculated.
- Calculate savings of energy and money, and reductions of greenhouse gas emissions, from implementing energy efficiency measures.
- Develop recommendations to improve the energy efficiency of homes.
- Prepare reports on community-scale energy efficiency improvements.

Sample Projects:



Energized Learning engages students in "real science"—acquiring and applying scientific information in collaboration with practicing interdisciplinary researchers. Students will gain a knowledge of, and experience in a range of disciplines and learning skills:

- Visual Arts
- Earth Sciences
- Probability and Statistics
- Investigation and Experimentation
- Microeconomics
- Web-based communications

Mastery of the subject will also equip students to use the tool in vocational settings, for example, as energy auditors in School-to-Work programs.

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Operated by the University of California