



ALTERNATIVE ENERGY

6th - 12th Grade

DESCRIPTION

This program explores the need for alternative energy because those sources, with an emphasis on solar energy, wind energy, and biofuels made from non-food plants, do not put as much carbon dioxide into the atmosphere as fossil fuels. In the planetarium show, *Dynamic Earth*, students will learn about the ultimate energy source, the sun. Direct links between carbon dioxide emissions and global warming will be discussed. In the lab, students will investigate how plants can be converted into fuels for today's combustion engines. Students will stop at the wind turbine and learn the benefits that wind turbines provide for different parts of the country. In the solar house, students will help demonstrate different types of alternative energy car models of the future and determine the pros and cons of each type. They will also explore the solar house and discover its many benefits. Program will run for 2 hours.

30 MINUTES – PLANETARIUM SHOW

- *Dynamic Earth* and Carbon Cycle Demo

30 MINUTES - LAB

- Making ethanol, measuring sugar levels, and investigating planet cells

30 MINUTES - SOLAR HOUSE

- Tour of the West Virginia University Solar House and scavenger hunt.

30 MINUTES

- Visit the Store and Foucault Pendulum

TAKE HOME ITEMS

- Solar glasses and Solar beads