



Lesson Plan: Energy Transformations

Objectives:

- Students will be able to identify the amount of energy each type of fossil fuel can provide
- Students will be able to measure energy using a variety of units
- Students will combine both math and science to determine the differences between fossil fuels

Standards: (Cited from Ohio's Department of Education)

- 9-10: Describe the finite nature of Earth's resources and those human activities that can conserve or deplete Earth's resources (pg. 132)
- 9-10: Explain the flow of energy and the cycling of matter through biological and ecological systems (pg. 132)
- 9-10: Describe how human activities can impact the status of natural systems (pg. 132)
- 9-10: Explain how energy may change form or be redistributed but the total quantity of energy is conserved (pg. 134)
- 11-12: Describe how atoms and molecules can gain or lose energy only in discrete amounts (pg. 149)

Activities:

1. Follow instructions according to Energy Transformations worksheet
2. Included – “Words You’ll Learn”, Tables, experiment, Questions

Assessment:

- Completion of glossary definitions
- Completion of mathematical tables
- Completion of experiment and results
- Completion of questions
- Participation in discussion
- Cooperative work in groups

Source: Alliance to Save Energy