

Don't Trash the Earth

Unit Summary

After researching and analyzing past and current recycling methods, teams develop a new recycling plan complete with cost analysis and supporting data. Teams propose recommendations to a committee supported by a slideshow. Brochures inform and persuade the public to take action. A student-designed Web page that promotes recycling is linked to the school Web site. In a final show of social responsibility, student entrepreneurs turn trash into treasure as they divert materials from the waste stream and turn them into attractive merchandise they sell at a holiday business fair.

Objectives

Students will be able to:

- Distinguish between renewable and nonrenewable resources
- Evaluate past and current waste management practices in the school, community, and country
- Assess current attitudes of students and staff by developing, administering, and analyzing a recycling survey
- Collect and summarize data, analyze results, and develop a persuasive argument for changing the school's waste management practices
- Create alternative uses for recycled materials

Targeted Content Standards

Science

- The student knows that obtaining, transforming, and distributing energy affects the environment
- The student researches and describes energy types from their source to their use, and determines if the type is renewable, nonrenewable, or inexhaustible
- The student explains how individual organisms and populations in an ecosystem interact and how changes in populations are related to resources
- The student compares and contrasts the characteristic properties of forms of energy

Math

- The student uses statistical representations to analyze data
- The student applies mathematics to solve problems connected to everyday experiences, investigations in other disciplines, and activities in and outside of school

- The student communicates about mathematics through informal and mathematical language, representations, and models
- The student uses logical reasoning to make conjectures and verify conclusions

Language Arts

- The student writes for a variety of audiences and purposes and in a variety of forms; to express, discover, record, develop, reflect on ideas, and problem solve
- The student writes to influence, such as to persuade, argue, and request
- The student uses available technology to support aspects of creating, revising, editing, and publishing texts