School Waste Audit

Grade Level: 6- 12
Time Needed: On-going project
Supplies: 5-gallon buckets, recycling containers
Location: Entire school campus

Objective: Students will learn where waste is created on their school campus. The class will investigate the types of waste and provide a plan for saving resources and money in the future.

Introduction: This project can go in so many directions and be as involved a project as teachers want it to be. Included is a partial outline of topics that could be tackled with this project, but we can cater this to certain subject areas, time restrictions, and grade level.

***The actual audit takes place during one school day. Most of the project is the prep-work prior to the audit and analysis after the audit day.

I. Prep-Work

- **Role of Campus Audits**

  The audit gives students an opportunity to participate in an assessment of resource management practices on their own school campus. The activity will strengthen the students investigation skills by collecting real data and analyzing their results. The students will make a campus map, indicating locations of waste and recycling receptacles. They will interview the local waste hauler and request tonnage reports. Discuss how solid waste is managed locally and what recycling opportunities exist.

- **State Standards**

  Not only will the audit help develop the student understanding of natural resource management, but through data analysis and written/oral presentations, the students will further develop their language arts and mathematics skills.

- **Using the Audit Tools**

  Within the packet are detailed instructions for conducting assessments of waste generation and resource use patterns on campus.

II. Waste Audit

- **Correlations to Science Content Standards**

  -How to classify resources as renewable/nonrenewable

-Natural origins of the materials used to make common objects
-Develop a hypothesis
-Select and use appropriate technology to perform tests, collect & display data
-Construct appropriate graphs from data and develop qualitative statements about the relationships between variables

- **Key Waste-Related Concepts**
  -Compare and contrast "generating solid waste" and "wasting resources"
  -Define ways that solid waste can be decreased
  -Discuss the concepts: Product Stewardship, Source Reduction, Closing the Loop; Buying recycled-content, Organic Waste (composting)

- **Introduction to Student Audits & Survey**
  Sites to Audit:
  Cafeteria
  School Office
  Classrooms

- **Waste Data Collection**
  -Questionnaires for School Maintenance Workers, Kitchen Staff, Office Manager
  -Sort Waste in Buckets (Food Waste, Paper, Magazines, Metals, Plastic, Trash, etc)
  -Tally the number of each category and record when it is emptied
  -The student survey group will conduct face-to face interviews with 30 students

- **Waste Data Analysis (audits, surveys, & questionnaires)**
  -How accurate was your prediction about waste generation on campus?
  -What evidence do you have to prove or disprove your prediction?
  -If the school started composting food scraps, how much trash could be diverted from the school's waste stream?
  -Calculate savings for the school from reducing the number of dumpsters need.
  -Figure the overall savings per year.

III.Report Preparation & Presentations

Through graphs, charts, written reports or oral presentations students will share their findings on patterns of resource use and disposal on their campus. After presenting their findings in the school newspaper or to the school board, some schools have wanted the students to share the information with the whole student body. To make the process more fun some classes have presented their findings to the school in an assembly-style mock TV show or skit.