



Theme: Sustainable Practices (Grades 9 to 12)

Alternative Energy

Post-Visit Activity #2

The Doomsday Project

Overview

Now that you have visited the Springs Preserve, you have a better understanding about the importance of living sustainably. You learned that in order to conserve natural resources, alternative energy sources can be used and materials can be reused or recycled. This project will enhance the knowledge that you have gained while on your trip by giving you a scenario in which the earth's resources are overused beyond repair!

Scenario

It is possible that sometime in the future, Earthlings will have consumed the Earth's resources, overused the land, polluted the air and poisoned the water to the point that it is no longer possible to live as we do now. One possible solution to this dilemma might be to build self-contained living habitats that are completely isolated from their surroundings.

At the completion of this assignment your group will have detailed a proposed design for such a habitat. It will need to be sealed for indefinite human survival, and therefore, your group will need to include in its design a way to supply and recycle enough air, water, sunlight, food, energy, land, plants, animals, minerals, and other essentials for survival. Your habitat will be designed for the survival of 100 humans and their future generations.

Procedure:

1. Carefully choose a location on the Earth for your habitat. List at least five advantages and disadvantages of your choice of locations. Assume that you may initially clean up enough soil, water and air to place into your habitat, but that you may not use any outside sources of soil, water or air once it is inhabited.
2. Name your habitat.
3. List the supplies needed for your habitat. Be specific; in other words, if you need plants, what species of plants? Animals, what species of animals? List each item separately.
4. Justify each item on your list and explain its role in the habitat.

5. Draw up detailed blueprints showing a top and side view for the structure that will contain your habitat. Include interior detail, and a scale that can be used to determine the exact size of the structure.
6. Write a description of your habitat, details of the various systems which your group included, how the systems work, and what a typical day will be like for one of the inhabitants.
7. Throughout the project, keep in mind that you will have to devise ways in which to live sustainability.