



Theme: Sustainability (Grades 9-12)

Post-Visit Activity #2 The Doomsday Project

Overview:

After visiting the Springs Preserve, students have a better understanding about the importance of living sustainably. Students 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 the students have gained through a scenario in which the Earth's resources are overused beyond repair.

Objectives:

- Students will understand how their actions impact the planet.
- Students will think critically about how to realistically reduce their environmental impact.

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.

Activity:

1. Divide students into groups of 5 or 6.
2. Each group will be creating a habitat as described in the scenario above that will house 100 humans and their future generations. Each group should carefully choose a location on the Earth for their habitat. List at least five advantages and disadvantages of the choice of locations. Students should assume that they may initially clean up enough soil, water, and air to place into

their habitat, but that they may not use any outside sources of soil, water, or air once it is inhabited.

3. Groups should name their habitats.
4. Groups should list the supplies needed for their habitat. Be specific; in other words, if plants are needed, what species of plants? If there will be animals, what species of animals? List each item separately and include a justification for why that item is needed and a short explanation of its role in the habitat.
5. Groups should draw up detailed blueprints showing a top and side view for the structure that will contain their habitat. Include interior detail, and a scale that can be used to determine the exact size of the structure.
6. Have groups write a description of their habitat, details of the various systems which the group included, how the systems work, and what a typical day will be like for one of the inhabitants.
7. Throughout the project, students should keep in mind that they will have to devise ways in which to live sustainability.
8. When all groups have finished, have groups present their habitats to the class.