Unit 6: Earth Day Project

Content Area: **Technology**
Course(s): **Technology**
Time Period: **Generic Time Period**
Length: **4 Weeks**
Status: **Published**

Unit Overview

Students will brainstorm a list of environmental problems facing their community. Students will then research possible solutions to these issues. Students will use web-based conferencing tools to compare and contrast their community's problems and the solutions with other comparable communities around the United States. Students will learn about weather and how the weather supports life. They will explore how they can integrate mathematics, technology, and engineering to "capture" rain and use it to support life.

Standards

TECH.8.2.2.B.1	Identify how technology impacts or improves life.
TECH.8.2.2.B.2	Demonstrate how reusing a product affects the local and global environment.
TECH.8.2.2.B.3	Identify products or systems that are designed to meet human needs.
TECH.8.2.2.B.4	Identify how the ways people live and work has changed because of technology.
TECH.8.2.2.B.CS1	The cultural, social, economic and political effects of technology.
TECH.8.2.2.B.CS2	The effects of technology on the environment.
TECH.8.2.2.B.CS3	The role of society in the development and use of technology
TECH.8.2.2.B.CS4	The influence of technology on history.

Essential Questions

- How can I be a responsible (ethical) user of various forms of media?
- Why is digital citizenship a cruical element of media literacy?
- How can we use the weather to help plants and animals?
- How is water trapped?
- How is water used?
- What kind of water is rain?
- Can we collect rain year round?

Application of Knowledge: Students will know that...

- Being literate with regard to media literacy gives me a useful skill in digital citizenship, critical thinking, and decision making.

- Digital tools allow for communication and collaboration anytime/anyplace worldwide.
- Engineers have an impact on the world they live in and their daily lives.
- I need to be a responsible user

Application of Skills: Students will be able to...

- Locate media rich resources to improve their knowledge.
- Recognize legal and ethical behaviors when using both print and non-print information by citing resources.
- Use digital tools to enhance their creativity.

Assessments

The teacher will formally assess students throughout the unit by using rubrics for their Earth Day Project.

Suggested Activities

- Engineer of the Week: Each week, a new engineer will be briefly introduced to the class, highlighting their impact on their current world.
- Class will brainstorm products that are recycled in their homes (water bottles, shopping bags, etc.) Teacher will discuss the process of recycling and how new products are made.
- Students will brainstorm different items they recycle (such as newspapers, plastics, aluminum, and glass) Students will be asked how these items can be reused.
- Create a digital poster of a robot that can help with environmental problem
- Collect data on how much rain we get during the month
- Students may develop their own ideas about use of sunshine or wind, as well. Rain is only our example.

Activities to Differentiate Instruction

- Partner with a capable learner. Closely monitor partner work
- Provide individualized check lists of the directions for a task in support of the thorough execution of directions.
- Students will use KidPix to create poster
- Using a rain gauage students will monitor how much rain we get in a month

Enrichment Opportunity:

- Students will create a presentation instead of a poster explaining an environmental problem and a solution.
- Students will create a pod cast outlining an environmental issue and ways to reach out to the community to help fix the problem.

Integrated/Cross-Disciplinary Instruction

Earth Science

Resources

- Computers
- Projector
- Google Doc
- BrainPop Jr- Reduce, Reuse, Recycle
- http://citizenship.disney.com/friends-for-change
- Time For Kids