

Essential Question:
HOW DOES SCIENCE HELP ME UNDERSTAND THE SYSTEMS AROUND ME?

Unit Outline by Ross Perry

Introductory Lesson:

**How might we define the ways science affects the way we live?
How does science help us, our community, and our watershed?**

Explore personal views of science and the resources that we use in our everyday lives.
Outcome: Produce a detailed list of valued science-related resources found within the state, to include health, economic, management, historic, and recreational sites.

Formative Lesson Ideas:

What is science? How are our lives shaped by what science offers and provides?

Explore students' ideas of local and regional science-related interests. Locate interests and ideas on a state map. Review an example of a valued interest and the different ways to value a site. Examine counter views.

How does science affect how we operate in our daily lives, our community, and our watershed?

Examine the ways in which science assists and improves our lives, the local and regional community, and the ecology of our landscape.

What are the different science-related resources our community uses and values?

Conduct interviews with family, friends, and community/business representatives. Compile a detailed list of science resources, availability and access to them, and overall impact to our society. Allow room for ongoing discoveries to be added through the process.

Who can assist with our learning of how science is used in our lives?

Invite guest speaker(s) to share ideas, research, and experiences. Compare and contrast student ideas with a qualified expert's professional point-of-view. Consider positive and negative perspectives from speaker(s). Compile details of each professional, to include the purpose for their work, the skills needed to be effective, and the knowledge needed to be competent. Explain why science is important to us and the systems around us. *[Ideas to consider: Doctor/Nurse, Game Warden, Geologist, Biologist, Engineer, College Professor, Wind/Solar Technician, Mining representative, Mineralogist, Home Improvement, Museum Director]*

What are the different ways we can observe science influencing our lives and future?

Visit pre-determined science-related locations through a group field trip(s). Examine the historical importance, ecological connection through proximal land and waterways, and aesthetic and economic value of the resources. *[Ideas to consider: Resource recovery facility, State Parks, Nature Centers, geologic sites of interest, medical facility, State Offices]*

Why should we work to preserve scientific resources? Can humans have a positive impact on something non-renewable?

Invite an individual who is working to preserve a valued resource. Explore ways to assist in this preservation through a class service-learning project. [*Ideas to consider: National Park naturalists/preservationists, Isle La Motte Quarry, erosion prevention and management*]

What do I want to know about our scientific resources?

Research Project: Students work together in pairs to define and document a local or regional area of scientific interest. Each group will become an expert on their area of interest and share their findings with the greater school community through a thorough report and oral presentation.

**CULMINATING ACTIVITY:
Summative Assessment to Essential Question**

PRODUCT will include:

- Individual portfolio of scientific interests and resources as defined by class and student
- Group presentation of research on local and regional science interests
- Service component that educates audience about local and regional science interests
- Personal reflection on Essential Question: How does science help me understand the systems around me?