

Course Description:

Environmental Science (2 of 2) examines how land is used and managed in the US. The course investigates how urbanization and technology have affected the globe. Environmental Science (2 of 2) explores resources and the differences between renewable and nonrenewable resources. The course also examines how Earth's climate is dynamic and has changed before, as well as how human interactions have impacted the current climate and how these actions are impacting air, soil, and water. Environmental Science (2 of 2) also reviews the environmental regulations that have been put in place to help keep Earth safe.

Course Objectives:

- Summarize methods of land use and management, and discuss different aspects of sustainable land use.
- Analyze and predict the impact of urbanization on populations, and relate urbanization to global climate change.
- Discuss the effects of technology on the environment, and analyze how ethical beliefs influence scientific practices.
- Identify and describe renewable and nonrenewable resources and evaluate their costs and benefits.
- Describe how resource availability, natural hazards, and climate change have affected human activity.
- Describe the functions of models in science.
- Describe how the Sun affects both weather patterns and climate on Earth.
- Identify natural causes, both external and internal, of climate change and evaluate some of these changes over Earth's history.
- Describe how changes to one system can create feedback that affects another.
- Define global warming and evaluate the different views on its cause.
- Identify and describe different types of air, soil, and water pollution.
- Analyze water quality by performing an investigation and examining different concentrations of pollutants, and communicate valid results.
- Evaluate the need for and the impact of different types of waste management.
- Analyze past and present environmental legislation at various levels of government as well as international treaties and their impact.
- Discuss the impact of research and technology on policy decisions, using scientific information from different sources.

Course Overview:

Unit/Labs/Projects & Required Materials

Unit 1: Land Use and Management

- **Lessons 1-5:** No Project

Unit 2: Resources and Their Impact

- **Lessons 6-7, 9-10:** No Project
- **Lesson 8:** Xeriscaping Research Project

- reliable resources (internet, books, etc.)

Unit 3: Earth's Climate and How It Changes

- **Lessons 11-15:** No Project

Unit 4: Anthropogenic Climate Change

- **Lessons 16-20:** No Project

Unit 5: Pollutants

- **Lessons 21-23, 25:** No Project
- **Lesson 24:** Water Quality Project
 - notebook or paper
 - pen or pencil
 - calculator
 - annotated map
 - Interactive Water Quality Laboratory

Unit 6: Environmental Regulations

- **Lessons 26-30:** No Project