

Environmental Science II Syllabus

RCAS Policies/Procedures

Students will be required to follow all RCAS policies and procedures. To view the RCAS High School Student Handbook, click [handbook](#).

Course Description

Do you love the great outdoors? Are you passionate about the environment? Environmental Science is a course that enables students to develop an understanding of the natural environment and the environmental problems the world faces. Students will participate in projects that will explore opportunity to manage, conserve, and preserve our natural resources. This semester will center on human impact on the environment and explore various viewpoints and strategies around maintaining a healthy environment.

Grading

Points shall be awarded for labs, assignments, quizzes, and projects. Points will be awarded and collected cumulatively throughout the year. Category weights will be as follows: Projects = 50%; Labs/Projects = 40%; Assignments = 30%; Quizzes = 30%.

Textbook

Environmental Science – Your World, Your Turn (2021)

Reading

Readings will be assigned per unit and topic.

Optional Reading

EDC Earth Science, Miller & Levine Biology, and others as necessary.

Instructional Resources

Canvas, CK-12, PhET, Khan Academy, and others as needed.

Essential Questions

What are various methods of energy conservation?
How do conventional and alternative energy sources compare?
What are the types of energy-related pollution?
What factors affect the human population?
What is the sustainability of human practices as they relate to water quality, agriculture, forestry, mining, fishing, energy and land use?
What are the causes, environmental effects, and methods for controlling pollution?
What impact does environment play on human health?

What are your personal views concerning the environment?

What are the rights and responsibilities of citizens in maintaining a healthy environment?

Essential Learning Intentions

Student can evaluate ways to conserve energy?

Student can compare and contrast various conservation methods.

Students can calculate and compare energy supply and demand.

Students can evaluate energy efficiency with new technology.

Student can identify examples of conventional energy sources.

Students can identify examples of alternative energy sources.

Students can compare and contrast each type of energy source.

Students can evaluate how energy sources have impacted history.

Students can identify byproducts of primary and secondary energy sources.

Students can evaluate a clean up project.

Students can evaluate how water is impacted by point source and nonpoint source energy sources.

Student can identify sources of pollution.

Student can identify environmental factors that impact the human population.

Student evaluate how various environmental factors impact the human population both positively and negatively.

Student can determine the value, efficiency, and duration for sustainable practices.

Student can evaluate the sustainability of practices with regards to water quality, energy and land use.

Student can discuss and identify causes of pollution.

Student can describe the relationship between human driven pollution and its effects on the environment.

Student can evaluate current methods for managing pollution.

Student can examine the impact of the environment on human health.

Student can describe the process of bioaccumulation.

Student can evaluate various cultural/religious practices/views on the environment.

Student can evaluate effective strategies to convey scientific ideas.

Student can identify agencies and their role in managing the environment.

Student can evaluate water as a right versus water as a commodity.

Student can evaluate common practices for pollution control and water usage.

Student can compare prior laws/usage with current laws/usage.

Student can design a sustainable solution to a modern problem.