# Environmental Science I 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 establish foundational knowledge around environmental science, population dynamics and energy conservation.

## 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 the structure and function of ecosystems?
What are the major biomes of the Earth?
What biodiversity is associated with the major biomes of Earth?
What are common dynamics of species populations?
What factors affect human populations?
What are common consequences of human population growth?
What approaches address overpopulation?
What methods are available to conserve common natural resources?

What are the types, uses and history of renewable and nonrenewable resources?
What is the impact of waste production and management on the environment?

**Essential Learning Intentions**

Student can analyze feeding relationships within an ecosystem/biome.
Student can use a model to analyze population dynamics/growth.
Student can identify environmental factors that impact human population.
Student can evaluate how various environmental factors impact human population both positively and negatively.
Student can evaluate environmental consequences of overpopulation.
Students can evaluate human impacts of overpopulation.
Students can evaluate how human populations move through demographic transition.
Student can analyze how improved healthcare, education, and increasing efficiency/sustainability addresses overpopulation.
Student can identify natural resources.
Student can research methods of conservation of natural resources.
Student can explain and support with evidence a specific method for conserving natural resources.
Student can research natural resources and usage throughout human history.
Student can identify renewable and non-renewable natural resources.
Student can identify major types of waste and major waste sources.
Student can discuss the impact of waste on the environment.
Student can investigate and describe modern techniques of waste management.