

AP Environmental Science  
Course Information and Expectations  
2019-2020

\*\*AP Environmental Science Exam Test Date – Mon May 11<sup>th</sup> (afternoon)  
JOIN THE AP CLASS - <https://apstudents.collegeboard.org/>  
<https://myap.collegeboard.org/login> - CLASS CODE - **XPA3MW**

**Class Expectations**

This is an AP course, and you should expect the workload to be accordingly. The class will move at a fast and continuous pace in order to cover the topics outlined by College Board. There will be reading and outlining of material outside of class. Class time will be spent on reinforcing activities and discussions. Mathematical calculations will also be an integral part of this course as well. It is your responsibility to know what you don't know, so you can get help.

**Grading System**

*Grades will be calculated based on the following categories using the points system.*

- HOMEWORK – Homework includes reading and written assignments. Homework will consist of various assignments to reinforce concepts. Success in class and on tests will depend largely upon keeping up with the reading material and regular studying.
- CURRENT EVENTS PROJECTS – Throughout the year, there will be various assignments related to current events, which will be called “APES in the News.” There will be 1 per grading period and will be equivalent to a test. Details will be given throughout the year on these projects.
- QUIZZES – Quizzes include both announced and unannounced. Quizzes will include material such as the reading from the night before or the lecture from the day before the quiz.
- TESTS/PROJECTS – Tests includes objective and subjective questions and are worth 50-100 pts each. They will be given at the end of each unit. They are modeled after the AP test, and will include 25-30 multiple choice questions and 1-2 free response question worth 10 points. Projects will be assigned periodically throughout the year. Specific guidelines will be distributed in class.
- LABS – Labs are a vital part of AP Environmental Science. Labs will be a combination of qualitative and quantitative data. They will consist of both field work and laboratory experiences.

**Success Strategies for AP Environmental Science:**

- |                           |                         |                       |
|---------------------------|-------------------------|-----------------------|
| ▪ Read the textbook       | ▪ Build up your working | practice writing some |
| ▪ Take notes before class | vocabulary              | more.                 |
| and add to them during    | ▪ Practice writing free | ▪ Peer grade FRQs     |
| class.                    | response questions      | ▪ Form a study group. |
|                           | (FRQs). And then        | ▪ Get a review book.  |

## **COURSE DESCRIPTION:**

The AP Environmental Science course is designed to engage students with the scientific principles, concepts, and methodologies required to understand the interrelationships within the natural world. The course requires that students identify and analyze natural and human-made environmental problems, evaluate the relative risks associated with these problems, and examine alternative solutions for resolving or preventing them. Environmental science is interdisciplinary, embracing topics from geology, biology, environmental studies, environmental science, chemistry, and geography.

## **BIG IDEAS:**

The big ideas serve as the foundation of the course and allow students to create meaningful connections among concepts. They are often overarching concepts or themes that become threads that run throughout the course. Revisiting the big ideas and applying them in a variety of contexts allows students to develop deeper conceptual understanding. Below are the big ideas of the course and a brief description of each.

### **BIG IDEA 1: ENERGY TRANSFER (ENG)**

Energy conversions underlie all ecological processes. Energy cannot be created; it must come from somewhere. As energy flows through systems, at each step, more of it becomes unusable.

### **BIG IDEA 2: INTERACTIONS BETWEEN EARTH SYSTEMS (ERT)**

The Earth is one interconnected system. Natural systems change over time and space. Biogeochemical systems vary in ability to recover from disturbances.

### **BIG IDEA 3: INTERACTIONS BETWEEN DIFFERENT SPECIES AND THE ENVIRONMENT (EIN)**

Humans alter natural systems and have had an impact on the environment for millions of years. Technology and population growth have enabled humans to increase both the rate and scale of their impact on the environment.

### **BIG IDEA 4: SUSTAINABILITY (STB)**

Human survival depends on developing practices that will achieve sustainable systems. A suitable combination of conservation and development is required. The management of resources is essential. Understanding the role of cultural, social, and economic factors is vital to the development of solutions.

## UNITS OF STUDY:

### Unit 1: The Living World: Ecosystems (6-8%)

*You'll begin to explore a view of planet Earth as one system made up of regional ecosystems composed of interdependent environmental features, processes, and relationships between species.*

### Unit 2: The Living World: Biodiversity (6-8%)

*You'll learn about the importance of biodiversity within ecosystems and the impact of outside factors on the evolution of organisms.*

### Unit 3: Populations (10-15%)

*You'll examine how populations within ecosystems change over time, and the factors that affect population growth.*

### Unit 4: Earth Systems & Resources (10-15%)

*You'll study the natural components that make up the environment, from geologic features to the atmosphere and climate.*

### Unit 5: Land and Water Use (10-15%)

*You'll examine how humans use and consume natural resources, and the ways in which we disrupt ecosystems, both positively and negatively.*

### Unit 6: Energy Resources & Consumption (10-15%)

*You'll learn about renewable and nonrenewable sources of energy, where they're used, and their impact on the environment.*

### Unit 7: Atmospheric Pollution (7-10%)

*You'll learn more about air pollution, including how human actions can cause it, and you'll analyze legislation intended to regulate emissions and improve air quality.*

### Unit 8: Aquatic & Terrestrial Pollution (7-10%)

*You'll examine the impact of pollution on ecosystems and learn how to determine its source.*

### Unit 9: Global Change (15-20%)

*You'll come to understand the global impact of local and regional human activities and evaluate and propose solutions*

## THE EXAM:

### Section 1: Multiple Choice

- 80 questions
- 1hr 30mins
- 60% of Score

*The multiple-choice section includes individual, single questions as well as sets of questions that refer to the same diagram or data presentation; these may include data tables, charts, graphs, models, representations, and text-based sources.*

Questions will test your ability to:

- Explain environmental concepts, processes, and models
- Analyze visual representations
- Analyze text sources
- Analyze research studies
- Analyze and interpret data
- Use math in solving problems
- Propose and justify solutions to environmental problems

### Section 2: Free Response

- 3 questions
- 1hr 10mins
- 40% of Score

*The free-response section includes three questions:*

- 1 question in which you'll design an investigation
- 2 questions which will ask you to analyze an environmental problem and propose a solution, one of which will require doing calculations

Questions will test your ability to:

- Explain environmental concepts, processes, and models
- Analyze visual representations
- Analyze research studies
- Analyze and interpret data
- Use math in solving problems
- Propose and justify solutions to environmental problem