

CVA AP Environmental Science Syllabus



COBB VIRTUAL ACADEMY
Class. Virtually. Anywhere.

Class Description

With the current changes in global climate, rising sea levels, and warming oceans, it is important for students to discover the state of Earth's systems and the consequences of human activities. AP Environmental Science provides students with a global view of their world and their role in it. It examines the scientific principles and concepts required to understand the interrelationships between ocean, land, and atmosphere that guide the natural world and allow Earth to be a planet suitable for life. Laboratory activities within the course support their learning of these relationships through reflective, hands-on, or virtual experiences. In addition, students identify and analyze environmental problems that are natural and human-made, determining their own ecological footprint in the world to discover how their activities affect the world around them. They evaluate the relative risks associated with environmental problems and examine alternative solutions, such as clean energy, sustainable practices, and conservation, for resolving or preventing future environmental problems.

This course has three sections: CVA AP Environmental Science A is the first half of the class and includes Units 1-5A. CVA AP Environmental Science B is the second half of the class and includes Units 5B-9. CVA AP Environmental Science Y is the entire class and includes Units 1-9.

Click [HERE](#) for the CVA AP Environmental Science Class Schedule which outlines the Units, Lessons, and Assessments for this course.

Click [HERE](#) for the AP Environmental Science College Board Advanced Placement course information.

Class Outline

Unit 1: The Living World: Ecosystems

This study of ecosystems will look at living organisms and the environment they inhabit and depend on for resources. The cycles involved in the processes – carbon, nitrogen, phosphorus, and hydrologic – will be studied. The impacts to humans and the ecosystem as a result of change will be addressed and analyzed.

Unit 2: The Living World: Biodiversity

The concept of biodiversity is explored to show it is a key component in sustaining life in ecosystems across the globe. Evolution has played a critical role in biodiversity, and because of natural and human disruptions, there have been impacts to populations in ecosystems and ecosystem services.

Unit 3: Populations

This unit explores how populations within ecosystems change over time in response to different environmental factors. You'll see how population growth is limited by things like resource availability and space.

Unit 4: Earth Systems and Resources

The main emphasis of this unit is on energy transfer and the interactions between earth systems. It will start off with plate tectonics and the geological changes that occur to earth systems at plate boundaries, such as the creation of mountains, island arcs, earthquakes, volcanoes, and seafloor spreading.

Unit 5A: Land and Water Use

This unit explores how human activities can disrupt ecosystems in both positive and negative ways. You'll take a closer look at how we use natural resources and how those choices impact the environment.

Unit 5B: Land Water Use

In this unit, you'll explore ways humans can reduce their impact on ecosystems. You'll practice evaluating environmental problems and analyzing proposed solutions or legislation by identifying their benefits and drawbacks.

Unit 6: Energy and Resource Conservation

In this unit, you'll learn how humans use renewable and nonrenewable energy sources, and how these choices affect the environment. You'll learn that energy use varies worldwide, and that the availability of natural resources depends on a region's geologic history.

Unit 7: Atmospheric Pollution

In this unit, you'll learn about air pollution, where it comes from, how it affects us, and what we can do about it. Air surrounds the Earth and moves across different environments, so pollution can happen both indoors and outdoors. Human activities like driving cars or using certain products can lower air quality.

Unit 8: Aquatic and Terrestrial Pollution

In this unit you'll learn that pollution from human activities affects the air we breathe, the land we live on, and the water we depend on. Sometimes it's easy to see where pollution comes from, like a factory or landfill, but other times it's spread out and harder to trace.

Unit 9: Global Change

In this final unit, you'll explore how human actions around the world affect the environment, and what we can do to help. Even though many environmental problems start locally or regionally, they can have global effects. Burning fossil fuels and using certain chemicals can damage the ozone layer and increase greenhouse gases, which leads to problems like climate change, ocean warming, and threats to wildlife and human health.



CVA Work Policy

- All classwork must be completed and submitted using the links in CTLS by the DUE DATE listed on the Class Schedule.
- Work should be completed in the order it is assigned on the Class Schedule.
- All work submitted on time will be graded within 48 hours.
- Assignments not submitted by the due date will be marked missing. Missing assignments are calculated as zeros in the coursework average. When students submit missing work, the assignment will be graded and calculated into the coursework average.

The CVA term ends prior to the end of the traditional school semester. The final date work will be accepted each term is posted on the [CVA website](http://cobbvirtualacademy.org) (cobbvirtualacademy.org) and the Class Schedule.

Grading

Grades for this course are calculated based on category percentages as follows:

Category	Weight
Assignments	20%
Experiments	25%
Quizzes	15%
Tests	30%
Final Exam	10%

Academic Integrity

Academic integrity is the cornerstone of learning at CVA, and we take the integrity and authenticity of student work very seriously. When academic integrity is maintained, students will make decisions based on values that will prepare them to be productive, meaningful, and ethical citizens.

Students are required to abide by the CVA Academic Integrity Policy. Academic dishonesty in any form will not be tolerated. The CVA Academic Integrity Policy outlines the consequences if students fail to maintain academic integrity in their course. For additional information, the CVA Academic Integrity Policy is posted on the [CVA website](http://cobbvirtualacademy.org).





Academic Integrity Process

Consequences	1st	2nd	3rd	4th
Parent contact by teacher	✓	✓	✓	✓
Resubmit work for full credit	✓			
Resubmit work for half credit		✓		
Automatic zero			✓	✓
Parent contact by CVA administration			✓	✓
Notification by CVA administration to local school			✓	✓
Mandated proctored exam or coursework				✓
Other as designated by CVA or local school administration	✓	✓	✓	✓

General Information

- The Cobb Teaching and Learning System (CTLS) is the platform used to deliver Cobb Virtual Academy classes.
- Students must earn 100% on the Student Orientation Quiz located inside each CVA Digital Classroom before they begin their Student Coursework.
- All coursework must be submitted through CTLS.
- All CCSD students have access to Microsoft 365 applications and must submit assignments in the requested format.
- Students in all sections of this course will take an online final exam during the window of time published on the CVA website and the Class Schedule.

Course Specific Information

This course will prepare students to take the College Board AP Environmental Science Exam administered at the end of the Spring Term. Registration for the AP Exam is completed through your local school. As part of the coursework, students will register for an account with [College Board AP Central](#) and actively engage with resources available there. The section Join Code and directions for accessing AP Central resources is available in the CTLS classroom in Unit 0.



Technology Requirements

CTLS is geo-restricted to the United States.

- A modern PC or Mac Computer
 - Lightweight or mobile devices such as Chromebooks, iPads, Android tablets, or smartphones **may not** be compatible with many of our courses.
 - Windows or Mac based computer
- Access to Microsoft 365
- Internet access

CVA Expectations

Student

- Maintain consistent access to a computer and internet
- Login to the course daily and review the announcements
- Adhere to the deadlines listed on the Class Schedule
- Read and promptly respond to teacher communication
- Contact the teacher with questions
- Manage your time wisely

Teacher

- Welcome Phone Call in the first two weeks
- 24-hour turnaround on all communication
- 24 – 48-hour turnaround on grading for items submitted by the due date
- Provide relevant feedback on assignments
- Be accessible via email and phone or text during published hours
- Provide two or more live sessions per term

CTLS Parent Account

Cobb Virtual Academy teachers use CTLS Parent to communicate with students and parents. Students will automatically receive communication sent from CTLS Parent via their CCSD student email address and will be asked to provide a cell phone number to receive text communications. Directions for students to set up CTLS Parent are located in the CVA Orientation. Parents will receive communications according to their existing notification settings.

Student Support

A student's first source for support is their CVA teacher. However, additional support is available. The **CVA Learning Center** is staffed with facilitators and is available both **in person** and **virtually**.

Facilitators can assist students with getting started, class navigation, assignment instructions, submitting work, technical issues, and strategies for online success.

The in-person Learning Center is on the Cobb Horizon High School campus at 1765 The Exchange Atlanta, GA.



All CVA students are enrolled in the Student Support digital classroom which provides access to the Virtual Learning Center (VLC). Students use the CTLS chat feature to send a message to the Student Support Team during the hours it is open.

Live Sessions

Your teacher will post live session information to the Class Board.

