

A.P. Environmental Science (APES) 2022-2023

Teacher: Mr. Kennedy

Room: E5

Phone: (559) 327- 2088

Email: Toddkenedy@cusd.com

Website: <http://mrkennedysbiologyplace.weebly.com/>

Greetings and welcome to AP Environmental Science. This AP Environmental Science course is designed to be the equivalent of a one-semester, introductory college course in environmental science.

Environmental science encompasses multiple disciplines including: geology, biology, chemistry, geography, ecology, economics, and political science.

Advanced Placement Environmental Science Topics

- Ecosystems, Biomes, Biodiversity
- Climate, Weather, Geologic Processes
- Risk, Toxicology, and Human Health
- Population Dynamics and Distribution
- Deforestation, Global Warming, Ozone loss
- Energy Efficiency, Renewable, and Nonrenewable
- Pollution of Air, Water, Soil
- Solid and Hazardous Waste
- Food Resources, Pesticides, Genetic Modification
- Forests, Rangelands, Parks, and Wilderness
- Environmental Economics, Politics, and Ethics
- Critical Thinking, Models, and Systems

METHODS OF INSTRUCTION

- Assessments: Quizzes and Exams
- Lab Activities
- Written Assignments such as FRQs, DBQs, Calculation Questions,
- Reading Assignments and Responses
- Group/Individual Activities and Projects
- Notes, discussion and debate
- Video clips
- Guest Speakers and Field Experiences

SAMPLE PROJECT BASED EXPERIENCES

Research Paper on Agriculture Government Policy Concepts

Seminar Presentation on Economic & Government Policy Practices

A rich variety of guided-practice activities involving data analysis of agriculture government policies

Development of Business Marketing Plan based on government regulations & policies

Update of existing home / landscape designs with sustainable improvements

Laboratory and Field Investigation

Because it is designed to be a course in environmental *science* rather than in environmental studies, the AP Environmental Science course will include a laboratory and field investigation component. Field studies may include trips to the on campus pond, waste water treatment facilities, Monterey Bay, Morro Bay, Cambria, Yosemite, and various locations in the Sierra Nevada Mountains. This allows students to learn about the environment through firsthand observation and experience.

Text: Miller, Spoolman – Exploring Environmental Science for AP

Grade Scale A = 100% - 90% B = 89.9% - 80 % C = 79.9% - 70% D= 69.9% - 60% F = 59.9% - 0% 1% Maximum Extra Credit*	Weighted Grading Scale: 45% = Exams/Quizzes 25%= Final Exam 25% = Classwork/Homework 5% = Service	A.P. Grade Bump The goal of this class is for each student to take and pass the AP Test. Any student passing the AP Test with a 3, 4, or 5 will receive a letter grade increase for both semesters. C-, C, C+ increases to a B- B-, B, B+ increases to a A-
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Service: 4% of the overall grade each semester is completed by serving 4 hours of community service related to the course outside of normal school hours and 1 hour of community outreach either in one of our feeder schools or on campus during normal school hours. All hours must be completed as part of a community event and supervised by an adult other than a student's parent. Many different opportunities will be made available throughout the semester.

Citizenship/ Extra Credit: 1% of the overall grade is based on student behavior and conduct. Violations include being tardy, misusing electronic devices, poor behavior, violating dress code, etc.

- o 1st -3rd violations are warnings. Parent/Guardian will be contacted after the 3rd violation.
- o 4th violation: Loss of 1% of grade
- o Additional Violations: Loss in possibility for extra credit

Office Hours: Tues-Thurs at lunch. Any changes will be posted on the board.

Google Classroom and Class Webpage - Class updates, test dates, and important information will be shared through our Google Classroom and our class webpage. You will need to access Google classroom via your CUSD Clever account. You will need to access these tools daily to keep up on coursework.

Cheating/Plagiarism:

- o Any student caught cheating/plagiarizing on any assignment will receive a zero on the assignment, a parent contact, and referral to SRC. This includes the person who gave the work to be copied (if applicable).
- o Any electronic device powered on and being used during a test will result in automatic zero on that test, a parent contact, and referral to SRC.

CLASS POLICIES:

- Throughout each unit, students will maintain a packet with a stamp sheet.
 - Students are fully responsible for their stamp sheet and organizing their assignments from the unit. It is very important for students to save ALL work in case they lose their stamp sheet.
 - If a student happens to lose the Stamp Sheet and all their work, then the student will have to make up all lost assignments.
- Missed work due to an absence is the student's responsibility. To help with this:
 - An online calendar is available on my website.
 - Students will be given two days for every day they were absent to complete missing assignments for full credit.
- Late work- assignments will be docked 10% per day that they are late. Assignments beyond 5 days late will not be accepted. It is the student's responsibility to pick up missing assignments and to turn them in, I will not remind you.

- Each semester the lowest **item** in the exam/quiz category will be dropped. There are no retakes of exams nor quizzes.
- Lab Misconduct: Students will be given only 3 lab violations before lab privileges will be taken away. If a student receives 3 lab violations, then an alternate assignment will be given.
- Behavioral issues will be handled according to the Clovis West's handbook and district policies.

Distance Learning Expectations

- Students missing school for an extended period for any reason are expected to use course materials found in Clever, Google Classroom and/or our class website to keep up with assignments.
- Communicate with the teacher via email to receive help as needed.
- Submit all assignments digitally on pace with the class.

Thank you for taking the time to read through the class syllabus. Please fill out the attached sheet and return. If you have any questions or concerns don't hesitate to contact me. Looking forward to a great year.

Todd Kennedy
AP Environmental Science
Clovis West High School

Please cut off this portion of the syllabus and return to Mr. Kennedy

Signing below verifies that you have read the class syllabus and understand the policies and expectations.

Student name (PLEASE PRINT): _____ Period: _____ Date: _____

Student signature: _____ Parent/Guardian Signature: _____

Parent Email addresses _____

PLEASE PROVIDE AN EMAIL ADDRESS. This is usually the easiest and most effective way to communicate with you.
Thank You!

Throughout the school year, we may view a video to help students make connections between standards and real life situations or examples. The following is a list of movies/ documentaries that MAY be shown during the school year. (**Note- not all of the videos will be shown due to time):

Food Inc – PG, Documentary filmmaker Robert Kenner examines how mammoth corporations have taken over all aspects of the food chain in the United States, from the farms where our food is grown to the chain restaurants and supermarkets where it's sold

An Inconvenient Truth- PG, Filmmaker Davis Guggenheim follows Al Gore on the lecture circuit, as the former presidential candidate campaigns to raise public awareness of the dangers of global warming and calls for immediate action to curb its destructive effects on the environment.

Before the Flood- PG, Actor Leonardo DiCaprio meets with scientists, activists and world leaders to discuss the dangers of climate change and possible solutions.

World in the Balance, China Rev's Up - TV- PG

King Corn- PG, Two recent college graduates travel to Iowa to investigate the role that corn plays in an increasingly complicated and dysfunctional American food industry. After planting their own small crop of corn and tracing its journey through the industry, they are alarmed to discover that corn figures in almost everything Americans eat.

Super Volcano- PG, For over a century, tens of millions of visitors have marveled at the natural beauty of Yellowstone National Park, home to the largest concentration of geysers in the world, including the iconic Old Faithful. However, beneath all this beauty lurks a beast. Visitors may not realize it, but Yellowstone is situated directly above one of the largest volcanic systems on Earth - a supervolcano

Poisoned Waters- PG, Turning a critical eye toward the growing problem of water pollution, this sobering installment of "Frontline" examines the conditions that lead to water contamination and the danger it poses to human health.

Gas land- PG, When Josh Fox receives a \$100,000 offer from a natural gas company interested in exploring in his land in Pennsylvania's Delaware River Basin, he decides to do his own research on drilling and the process known as fracking.

The Day After Tomorrow- PG-13, After climatologist Jack Hall (Dennis Quaid) is largely ignored by U.N. officials when presenting his environmental concerns, his research proves true when an enormous "superstorm" develops, setting off catastrophic natural disasters throughout the world. Trying to get to his son, Sam (Jake Gyllenhaal), who is trapped in New York with his friend Laura (Emmy Rossum) and others, Jack and his crew must travel by foot from Philadelphia, braving the elements, to get to Sam before it's too late.

Parents, please check one of the following for positive parent permission for video showings in class this year:

_____ I give my child permission to watch all of the above videos.

_____ I give my child permission to watch only the videos I have circled above and know that an alternative assignment will be provided for those that I have not authorized. (Parents please circle the videos that you approve)

_____ I do not give permission for my child to watch any of the above videos and know that an alternative assignment will be provided.

UNIT ONE

INTRODUCTION TO ENVIRONMENTAL SCIENCE

1-2 Weeks

Understanding Our Environment
Principles of Science and Systems

UNIT TWO

ENERGY RESOURCES AND CONSUMPTION

3-4 Weeks (10-15% of AP Exam)

MATTER, ENERGY, AND LIFE

*Part of this chapter will be covered earlier in the course

CONVENTIONAL ENERGY

SUSTAINABLE ENERGY

UNIT THREE

EARTH SYSTEMS AND RESOURCES

3-4 Weeks (10-15% of AP Exam)

GEOLOGY AND EARTH RESOURCES

AIR, WEATHER, AND CLIMATE

*Part of this chapter will be covered later in the course

UNIT FOUR

THE LIVING WORLD

3-4 Weeks (10-15% of AP Exam)

MATTER, ENERGY, AND LIFE

*Part of this chapter will be covered later in the course

BIOLOGICAL COMMUNITIES AND SPECIES

INTERACTIONS

BIOMES

BIODIVERSITY

UNIT FIVE

POPULATIONS

3-4 Weeks (10-15% of AP Exam)

POPULATION BIOLOGY

HUMAN POPULATIONS

URBANIZATION AND SUSTAINABLE CITIES

UNIT SIX

LAND AND WATER USE

3-4 Weeks (10-15% of AP Exam)

FOOD AND AGRICULTURE

PEST CONTROL

LAND USE: FORESTS AND

GRASSLANDS

WATER USE AND MANAGEMENT

UNIT SEVEN

POLLUTION

7-8 Weeks (25-30% of AP Exam)

ENVIRONMENTAL

HEALTH AND TOXICOLOGY

AIR POLLUTION

WATER POLLUTION

SOLID, TOXIC, AND HAZARDOUS WASTE

UNIT EIGHT

GLOBAL CHANGE

3-4 Weeks (10-15% of AP Exam)

PRESERVING AND RESTORING NATURE

AIR, WEATHER, AND CLIMATE

*Part of this chapter will be covered earlier in the course

ECOLOGICAL ECONOMICS