

**Advanced Placement Environmental Science (APES)**  
**2019-2020**  
**Mrs. Mattox J. Nalley**  
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**Introduction**

AP Environmental Science is a rigorous, interdisciplinary course focusing on the application of scientific concepts and principles used to understand and develop solutions to environmental problems and issues. An equivalent to a college-level class, this course includes lecture, laboratory and field components through which students will learn about environmental issues while developing and applying critical thinking, problem solving and communication skills.

**Goal**

The goal of this AP Environmental Science course is to provide students with scientific skills needed to understand the interrelationships of the natural world, to identify and analyze causes for and risks associated with natural and human-made environmental problems, and to examine alternative solutions for resolving or preventing them.

**Schedule and Labs**

This course meets on Monday (45 minutes), Tuesday (45 minutes), Wednesday (90 minutes), and Friday (45 minutes)

**Textbook and Supplemental Materials**

Environmental Science for the AP Course (3rd edition)  
Andrew Friedland and Rick Relyea, BFW Publishers (2019)

The Princeton Review, Cracking the AP Environmental Science Exam  
Barron's AP Environmental Science Study Guide

**Unit Sequence**

<b><u>Unit</u></b>	<b><u>Topic</u></b>	<b><u>Length</u></b>	<b><u>AP Weight</u></b>
Introduction		(2 days)	
Unit 1	The Living World: Ecosystems	(14-15 days)	(6-8%)
Unit 2	Ecosystem Services	(11-12 days)	(6-8%)
Unit 3	Population	(12-13 days)	(10-15%)

Unit 4	Earth Systems and Resources	(11-12 days)	(10-15%)
Unit 5	Land and Water Use	(18 -19 days)	(10-15%)
Unit 6	Energy Resources and Consumption	((16-17 days)	(10-15%)
Unit 7	Atmospheric Pollution	(11-12 days)	(7-10%)
Unit 8	Aquatic and Terrestrial Pollution	(19-20 days)	(7-10%)
Unit 9	Global Change	(19-20 days)	(15-20%)

## **MATERIALS**

- 3 Ring binder
- Ruled(Lined)Paper
- Pencils
- Ruler
- Bound Science Composition Book with Graph Paper
- Red/Black/Blue Pens
- Poster Board/Foam Boards/TriFolds/Index Cards
- Scientific Calculator
- Pencils, Color, Pencils,Crayons
- Positive Attitude

## **Classroom Rules**

Tardy by definition in this class is simply not being in your assigned seat when the tardy bell rings. You are to be seated before the tardy bell rings. This specifically means personal business should be taken care of prior to class such as sharpening pencils, bathroom visits, and phone calls. If you are more than 20 minutes late, then you are considered to be absent. If you should arrive tardy, simply sign in on the tardy sheet near the front door. Your tardy will be logged into the computer. If you have an excused pass, then place it on my desk.

Dismissal will be by the teacher not by the bell. Always remain seated until you are dismissed; never stand by the door waiting for the bell.

If you are absent, please login to Mymcps Classroom/canvas to access missing work, including labs, worksheets, and note slides.

If you have an unexcused absence, you can request the work and it will be graded, but assigning a grade is at the teacher's discretion.

Behavior that is disruptive to class or destructive of property will result in detention, a phone call home, and/or a referral.

Food or drink is NOT permitted in the classroom/laboratory spaces. Sinks are not to be used to dispose of trash, including glass coverslips, paper towels, or anything else. Broken glass should be brought to my attention for proper disposal. ***Inappropriate lab behavior will result in a ZERO for that lab and in cases of severe misuse, a phone call home and a referral.***

If you missed notes, labs, or an exam due to an absence it is **your responsibility** to get the missing information and schedule a completion time. Excused absences will be allowed the same amount of time you missed to make-up work before it is considered to be late. Failure to complete any assignment in a timely manner is recorded as a zero.

Hats, cell phones, and other electronic devices are to be off and out of sight. Cell phones are to be turned off during class time. Electronic devices are to be turned off during class time. Electronic devices **should be used responsibly** for **educational use** during class. Phones are expected to be put away at the start of class. The first sight of inappropriate phone use will result in me asking for the phone. The phone will be returned at the end of class. If the student does not cooperate, security will come take the phone. If the student outright refuses, security will come to escort BOTH the student and the phone to the office.

**LAB SAFETY** During lab activities, you may be learning the use of new equipment, working with substances, and using different energy sources. It is important that you approach your work seriously, following all guidelines and safety rules as indicated on Safety Contract.

### **TEST**

Test will consist of multiple-choice and Free Response questions. The first two tests will only have multiple-choice questions. Free Response Questions (FRQ's) will be given as homework assignments for the first two tests. The third test will incorporate essay questions. The testing environment will be similar to the AP Exam; therefore test will be timed based on number of questions present. The majority of the multiple-choice questions will come from lecture notes, text questions, and labs. We will work our way up to 80 questions like the AP Exam as the year progresses.

### **AP EXAM**

**80 Multiple Choice Questions**

**3 Free Response Questions**

**Use a calculator**

### **Assignments:**

**College Board Progress Checks will be used as a baseline assessment for mastery and will NOT be graded.**

**Summatives (40%):** This category may include (but not limited to) Unit tests, Quizzes (weekly), FRQ's, projects, and presentations. Unit tests are not reassessed. A few quizzes will be given per unit.

**Formatives (Graded for completion) (50%):** Some assignments including (but not limited to) Exit Tickets, Labs, and FRQ's. You will be informed if the assignment is graded for completion or for accuracy.

**Homework for Practice (10%):** **These assignments are graded for completion.** This typically will cover homework problems that I go over in class, unit test reviews, discussion boards, and it will also include some class assignments such as vocabulary and practice problems.

## **Grading Policy:**

### **General Grading Policies**

It is your responsibility to make up missing assignments. Students are to place their name, period, and date on all assignments.

- Homework assignments for practice have the **same due date and deadline** because we check over our answers at the start of class.
- Formative assignments have a deadline of **one week** from the due date. After that, they cannot be made up.
- All re-assessments must be completed by the day of the **summative unit test**. Students are allowed to retake quizzes but the retake grade will be the final grade in the gradebook even if it is lower. If you leave questions blank or copy/cheat on quizzes, you will not be able to retake them. Unit tests and writing assignments are not retakeable.
- While work may not be submitted for credit after the deadline, you may still submit for feedback purposes.
- Assignments missed due to absence should be made up within the **number of days absent plus one**. Assignments not turned in by the due date receive a grade of "Z", which means it has not been turned in; however, it will still be accepted for late credit until the deadline. The grade received for all late work will be lowered by 10%. Once the deadline has passed, all assignments marked "Z" will be assigned a grade of 0 and will no longer be accepted for a grade.
- Due dates will be communicated when each assignment is assigned. Once a graded assignment has been returned to the class, the only way that it will still be accepted for late credit is if you complete an alternative version in my presence during lunch or after school by appointment. Additionally, the lowest possible grade that you will receive for any **completed** assignment, quiz, or test is a 50%.
- Academic dishonesty or cheating will absolutely not be tolerated on any assignment. It is NOT acceptable to present other people's work as your own. This includes sharing your own work with other students for their use (e.g. taking pictures on cell phones, etc.). Academic dishonesty in this course may result in zeros on assignments without the possibility of improvement. Lab reports in this course are expected to be completed individually. Though data may be collected in groups, data analysis and written reports must be completed separately

Progress checks must be completed by the deadline, **which is the night before SUBUNIT/UNIT ASSESSMENT**, in order to receive credit with a 10% deduction. If the

**assignment is turned in by the due date, the student will receive the credit that was earned. If the assignment is done after the due date (date which was announced and in mymcp's classroom, but before the deadline the assignment will receive a 10% deduction. Assignments turned in after the deadline will receive a score of zero.**

**Lunch Help:**

I will be available on Tuesday and Thursday during lunch. I will also be available after school until 2:50. My email address is Dedra\_D\_MattoxJonesNalley@mcpsmd.org.

**Grades:**

The points earned in each category will be totaled and a percentage for each category will be obtained. The will be assigned as follows:

89.5-100% A 79.5-89.4% B 69.5-79.4% C 59.5-69.4% D below 59.4% E

***Please keep track of your grade on edline.***

Chpt.(s)	Title	Powerpoint, Lab, Discussion Board	Date (s)
	Introduction		Sept. 3 - 5
	Safety		Sept 3
1	Environmental Science, Indicators, sustainability, and Scientific Method		
	AP Practice Questions/Practice FRQ'S		
2	Environmental Systems, Systems and Matter, Energy, Flows, Practice Math and Graphing, and Feedbacks		Sept. 6
	AP Practice Questions/Practice FRQ'S		Sept. 9
	Unit 1 The Living World: Ecosystems		Sept 9 - Oct. 2
3	Ecosystem Ecology: Energy, Matter, and Disturbances		
	AP Practice Questions/Practice FRQ'S		

4	Global Climates and Biomes: Unequal Heating of Earth, Air Currents, Ocean Currents, Terrestrial Biomes, and Aquatic Biomes		
	AP Practice Questions/Practice FRQ'S		

	Unit 2 The Living World: Biodiversity		Oct. 3 - Oct. 23
5	Evolution of Biodiversity: Evolution, Speciation, Niches, and Distributions		

	AP Practice Questions/Practice FRQ'S		
	Unit 3 Populations		Oct. 25 - Nov. 18
6	Population and Community Ecology: Abundance, Distribution, Growth Models, and Succession		
	AP Practice Questions/Practice FRQ's		
7	The Human Population: Carrying Capacity, Economic Development, and Sustainability		
	AP Practice Questions/Practice FRQ'S		
	Unit 4 Earth Systems and Resources		Nov. 19 - Dec. 10
8	Earth Systems: Mineral Resources, Geology, Weathering, and Soil Science		
	AP Practice Questions/Practice FRQ'S		
9	Water Resources and Water Use: Availability, Human Alteration, and Use		
	AP Practice Questions/Practice FRQ'S		

	Unit 5 Land and Water Use		Dec. 11 - Jan. 22
10	Land, Public and Private, Practices, and Consequences,		
	AP Practice Questions/Practice FRQ'S		
11	Feeding the World, Nutritional Needs, Farming, and Alternatives		
	AP Practice Questions/Practice FRQ'S		
	Unit 6 Energy Resources and Consumption		Jan. 23 - Feb. 19
12	Nonrenewable Energy Resources, Patterns of Use, Fossil Fuel, and Nuclear Energy		
	AP Practice Questions/Practice FRQ'S		
13	Achieving Energy Sustainability, Conservation, Efficiency, Renewable, Biomass and Water, Solar, Wind, Geothermal, and Hydrogen, and Future Planning		
	AP Practice Questions/Practice FRQ'S		
	Unit 7 Atmospheric Pollution		Feb. 20 - Mar. 10
15	Atmospheric Pollution and Stratospheric Ozone Depletion Sources, Photochemical smog, Acid rain, and Indoor Air Pollution		
	AP Practice Questions/Practice FRQ'S		
	Unit 8 Aquatic and Terrestrial		Mar. 11 - Apr 17

	Pollution		
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14	Aquatic Pollution, Wastewater, Heavy Metals, Oil Pollution, Nonchemical water pollution, and pollution laws		
	AP Practice Questions/Practice FRQ'S		
16	Waste Generation, Terrestrial Pollution, and Waste Disposal, Recycling, Composting, Landfills, Incineration, and Hazardous Waste		
	AP Practice Questions/Practice FRQ'S		
17	Human Health and Environmental Risks, Human Disease, Toxicology, and Risk		
	AP Practice Questions/Practice FRQ's		
18	Conservation of Biodiversity, Mass extinction, Declining Biodiversity, and Conservation		
	Unit 9 Global Change		April 20 - May 1
19	Global Change, Greenhouse Effect, and Global Warming		
	AP Practice Questions/Practice FRQ's		

20	Sustainability, Economics, and Equity, and Regulation, Equity		
	AP Practice Questions/Practice FRQ's		
	Practice AP Exam		

	Project of ONE		
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