

October 18, 2021

Dear Parents and Students,

Welcome to AP Environmental Science! This year we will be studying a lot of different topics ranging from environmental chemistry, to eco-systems to weather and climate. We are in store for a great year filled with labs, activities, and lots of learning. Something that will keep you on top of your science this year is my website.

**mrpowellscience.com**

**Also subscribe on youtube.com *Mr. Powell Science***

Please visit the site regularly to stay up to date on what happened in class, what's coming up, and, if you miss a day what you missed.

Additionally, all work will be submitted digitally through **Google Classroom**. The class code for your class is

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For science class, in addition to a pencil, you will need a **binder (2 inch recommended), glue stick, colored pencils, highlighter, black permanent marker (sharpie), loose leaf paper and scissors**. We will use each of these items almost daily. Please make sure you have all your materials everyday.

I'm looking forward to a great year of science learning with you!

-Mr. Powell

What is science?

**Before**

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**After**

Why is science important?

**Before**

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**After**

# APES FALL 2021 SYLLABUS

Powell

For AP Environmental Science (APES) students will be issued a text book, **Environmental Science for the AP® Course** Third Edition ©2019 by Andrew Friedland and Rick Relyea. Students will check out the book at the beginning of the year and will return it at the end of the year.

Students will also access many digital resources throughout the course. All course work will be collected through **Google Classroom**. Students will also use **AP Classroom**, available through [apcentral.collegeboard.com](http://apcentral.collegeboard.com)

The course will meet every day in second quarter, October 18- December 17 2021. The course will resume every day of second semester, January 4 - May 19, 2022.

## THE APES AP TEST IS **Tuesday MAY 3, 2022**

Although not required to pass the course, all students are encouraged to take the AP Exam. If you take the AP exam you are exempt from the class final. The cost of the exam is \$96 and can be paid at once or on a schedule throughout the year through [TotalRegistration.net](http://TotalRegistration.net). **Students that do not take the exam must take a final exam** to pass the class and will not receive the AP class credit boost on their GPA.

## Tentative Schedule of Units for Second Quarter

1 week	Unit 0 Introduction to Environmental Science Ch1	Introduction to Environmental Science <ul style="list-style-type: none"><li>Define Environmental Science and define how humans have altered our environment</li></ul>
3 weeks	Unit 2- The Living World Ch 2-5	Ecosystem Ecology <ul style="list-style-type: none"><li>Energy and matter Flow, Laws of Thermodynamics, feedback systems</li></ul> Global Climates and Biomes <ul style="list-style-type: none"><li>The unequal heating of the Earth, air currents, ocean currents, terrestrial biomes, aquatic biomes</li></ul> Evolution of Biodiversity <ul style="list-style-type: none"><li>Biodiversity, how evolution creates biodiversity, speciation and the pace of evolution, evolution of niches and species distributions</li></ul>
2 weeks	Unit 3 - Biological and Human Populations Ch 6-7	Population Biology Concepts (Ch 6) <ul style="list-style-type: none"><li>population distribution, population growth, community ecology, community succession</li></ul> Human Population (Ch 7) <ul style="list-style-type: none"><li>Historical population sizes; distribution; fertility rates; growth rates and doubling times; demographic transition; age-structure diagrams</li></ul>
2 weeks	Unit 4 – Earth’s Systems and Resources Ch 8-9	Earth Systems <ul style="list-style-type: none"><li>Mineral resources, geology, weathering and soil science</li></ul> Water Resources <ul style="list-style-type: none"><li>The availability of water, human alteration of water availability, human use of water now and in the future</li></ul>

## What is Environmental Science?

In the boxes below list at least one item for each topic, you may use phones for research if needed

<b>Environmental Issues Facing the World Today</b>	<b>Species of Animals that Should be Saved</b>
<b>College Majors that Relate to Ecology</b>	<b>Places to Visit to Enjoy the Environment</b>
<b>Movies The Have an Environmental Theme or Message</b>	<b>Ways that Individuals Can Help the Environment</b>
<b>Laws that Protect the Environment</b>	<b>Products that Have an Environmental Message or Application</b>

**Complete and Cut along Dotted Line and Return to Mr. Powell**

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Student Name \_\_\_\_\_

- I plan to take the AP Environmental Science Exam on May 3, 2022
- I do not plan to take the AP Environmental Exam and acknowledge that I will instead take a final exam in class and I will not receive the AP Credit boost on my final grade.

Student Signature \_\_\_\_\_ Date \_\_\_\_\_

Parent Signature \_\_\_\_\_ Date \_\_\_\_\_

# Native Cutthroat Experiment

\_\_\_\_\_:

\_\_\_\_\_:

\_\_\_\_\_ : (How will they do the experiment) \_\_\_\_\_

\_\_\_\_\_ : (What \_\_\_\_\_ will they collect?)

\_\_\_\_\_ : (Connects \_\_\_\_\_ to \_\_\_\_\_) What would they need to find to determine if their project is successful?

