

# **Bellville High School**

## **Summer Assignments for AP Environmental Science 2023-2024**

**Introduction:** Welcome to AP Environmental Science, aka... “APES”! This course is designed to be equivalent to a one semester college course in environmental science. APES is about understanding the interrelationships of the natural world, the influence of human interactions, and discussing a broad range of environmental problems. While this is primarily a science course, it will touch on areas of economics, politics, government, ethics along with a variety of scientific domains, making it a very interdisciplinary course. The nine major units for the course include:

- |   |   |  |
|---|---|--|
| <b>1. Ecosystems</b>                    | <b>2. Biodiversity</b>                      | <b>3. Populations</b>                      |
| <b>4. Earth Systems &amp; Resources</b> | <b>5. Land &amp; Water Use</b>              | <b>6. Energy Resources and Consumption</b> |
| <b>7. Atmospheric Pollution</b>         | <b>8. Aquatic and Terrestrial Pollution</b> | <b>9. Global Change</b>                    |

I am excited to teach this course for the 2023-2024 school year! There will be a significant amount of rigorous coursework throughout the year. Sometimes students get the idea that AP Environmental Science is “easy”, but this is certainly incorrect. The class is not as calculation heavy as AP Physics or AP Chemistry, but it still involves a great deal of critical thinking, reading, writing, and design that makes it uniquely challenging. The course material is not difficult to understand because it relates to the world around you, BUT it is an AP course because of the volume of information that you are expected to master by the end of the course. This means that you will be doing independent reading and using supplied resources at home so class time can be reserved for keynote lectures, labs and activities.

### **Requirements:**

**Part 1. Cover Page & Join Google Classroom & Join Remind**

**Part 3. A 3” 3 ring binder and 10 dividers**

**Part 5. Analysis/Review**

**Part 2. The Flinn Safety Contract**

**Part 4. World Geography - 3 World Maps**

**Part 6. Movie Poster and Paper**

**The due date for all parts of the summer assignment is August 18<sup>th</sup>, 2023.**

Students can pick-up paper copies of the Summer Assignment at the front office or by contacting Mrs. McEnerney via email at [nmcenerney@bellvillebrahmas.org](mailto:nmcenerney@bellvillebrahmas.org).

**Part 1: Make a cover page for Binder:** The cover page should have the following on it: APES, your first and last name, a Environmental Science joke/cartoon, and use at least four colors. The joke/cartoon may be one of your own design, or one you print from the internet. If you print one from the internet, be sure to add the URL or name of the source such as *"Far Side"* by Gary Larson.

**Join Google Classroom:** the class code is **ps33umv**

**Join Remind:** the class code is [remind.com/join/cc966bc](https://remind.com/join/cc966bc) or text @8bd8c8 to 81010

**Part 2: Flinn Contract:** Have the attached contract signed and dated by both you and a parent/guardian. You can find a copy to print on the Google Classroom.

**Part 3: Binder and tabs:** The 3 in. binder should have the cover page in the front and 10 dividers we will label on the first day of class.

**Part 4: World Geography for APES:**

**Supplies Needed:** Pens with black, red, and blue ink; colored pencils; internet access, maps, textbooks.

A good working knowledge of basic world geography is important. This year in APES, we will talk about many different things that have happened around the world. You will learn the location of some of these events, as well as refreshing your knowledge of political and physical features of the globe. Follow the directions for labeling on each of the maps provided. Use the internet and any textbook resources you have to help you.

**Map - Identify and Label on the World Physical Map:**

- a. **Label the Equator red and Prime Meridian dark blue.** Continents and oceans have been labeled for you, but still know them! On the sides of the map label the direction of longitude and latitude lines.
- b. **RIVERS trace in BLUE and label:** Amazon, Nile, Yangtze, Ganges, Mississippi, Colorado, Columbia, Rio Grande

- c. **LAKES & SEAS trace in BLUE and label:** Hudson Bay, Great Lakes, Chesapeake Bay, Bering Sea, Gulf of Mexico, Ogallala Aquifer (aka High Plains Aquifer), Persian Gulf, Aral Sea, Caspian Sea, Mediterranean Sea, Red Sea, Lake Victoria, Lake Baikal
- d. **PARKS & MOUNTAINS trace in BROWN and label:** Appalachians, Rockies, Andes, Alps, Himalayas, Yucca Mountain (NV), Denali, San Andreas Fault, Grand Canyon, Yellowstone National Park, Yosemite National Park, Glacier National Park, the Mid-Atlantic Ridge, Gorongosa, Amazon Rainforest, ANWR, Everglades
- e. **ISLANDS shade in PURPLE and label:** Madagascar, Haiti, Galapagos Islands, Hawaiian Islands, Borneo, Philippines, Japan, Midway Island, Great Barrier Reef

### **Part 5: Analysis/ Review:**

**On notebook paper write your answer- no typed responses**, by giving a brief description of the environmental significance of the following locales and laws. Sometimes that might be hard to determine, so your goal will be to find the most important fact(s). Why did we choose this place? What happened, what is unique, endangered, exploited, dangerous? **You only need a couple of sentences, but be specific. Include your reference.** Use this example:

**\*Example: What catastrophe devastated New Orleans and the Gulf Coast in 2005?**

\*Hurricane Katrina was one of the deadliest hurricanes to hit the US, killing over 1800 people in August of 2005. It was a Category 4 hurricane, the sixth strongest recorded, and was nearly 75 miles wide. Katrina caused extensive flooding and threats to human health and sanitation. [www.livescience.com](http://www.livescience.com)

1. **What happened....**
  - a. At Three Mile Island?
  - b. In Bhopal India?
  - c. In Minamata, Japan?
  - d. In Prince William Sound, Alaska?
2. **Why do we study...**
  - a. Antarctica?
  - b. The Great Pacific Garbage Patch?
  - c. Gorongosa National Park?
  - d. The Arctic National Wildlife Refuge (ANWR)?
3. **What is the importance of...**

a. Resource Conservation & Recovery Act (RCRA)

b. National Environmental Policy Act

c. Convention on the International Trade in Endangered Species (CITES)

d. Environment Protection Act, 1986

## **Part 6. Movie Poster and Paper**

Choose an environmental documentary to watch (some suggestions are below, but you may choose others).

Documentary must be a minimum of 45 minutes in length. It should look at Environmental ISSUES, not just nature. Please complete the following for your Documentary.

- On a sheet of paper and on the poster, provide the name of the documentary and year in which it was released.
- In the paper, describe any questions you may have as a result of your viewing. **(3 Questions Minimum)**
- Also, describe your opinion of the documentary – positive/negative/neutral. Reference items in the documentary to support your thoughts. **(Minimum 1 paragraph)**
- Next, relate what you have learned to your personal life – how does it affect/impact you? What information affected you the most? Will it impact how you live your life? **(Minimum 1 paragraph)**
- Finally - Design a unique movie poster and slogan for it. Your movie poster should be colorful, neat, and include a slogan that identifies the take home message of the film. Then justify and defend your poster /slogan **(Minimum 1 paragraph)**

**Suggested Documentaries** - many can be found on Netflix, Amazon Prime Video, or some other streaming services on the web. If you find a documentary that you like but not on the list, email me for approval.

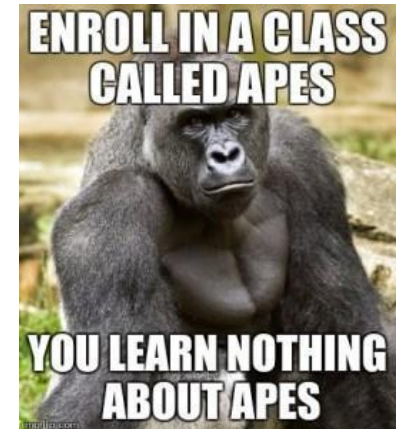
- National Geographic: Human Footprint
- National Geographic: Six Degrees Could Change the World
- 180° South
- Flow: For the Love of Water
- Tapped
- Trashed
- Food, Inc.
- King Corn
- Dirt
- Gasland
- Who Killed the Electric Car / Revenge of the Electric Car
- Manufactured Landscapes
- Vanishing of the Bees

- Blue Gold: World Water Wars
- Planet in Peril (PBS)

- Harvest of Fear (Frontline)

- Plastic Planet
- Empty Oceans, Empty Nets

- The Cove



<https://teachingapscience.com/review-for-the-ap-exam/ape-pic/>

## Map 2 - World Physical Map

