

APES SUMMER WORK

Hello! Welcome to AP Environmental Science or what we lovingly call APES. I am excited you have chosen APES as your or one of your science courses. We have A LOT planned for this year including labs, activities, data collection, and projects! I will check my email periodically throughout the summer, so please email me with any questions you may have. mcollins@tipton-county.com. Also, please sign up for our google classroom.

APES 2025-2026 google classroom code- 5gwz23h

1- Answering a Free Response Question (FRQ)

-videos posted in google classroom

-Not graded but will benefit you in the long run as I will expect you to be able write decent FRQ responses immediately.

- Watch the “Write like a Scholar” series
 - o There are three: Annotating, Writing, and Scoring
 - o Take GOOD notes!
- Part 2 is the “how to” for answering FRQ’s videos
 - o There are 3: Experimental Design, Math, and Environmental Solution
 - o Take GOOD notes!

2- Required Laws- 100 points

- 5 Slides should be up loaded as google slide/doc or turned in on paper first FULL day of class
- For each law you will create a slide presenting the following information:
 - o Title
 - o Year implemented
 - o Countries involved
 - o Problem addressed
 - o Goals
 - o Effects (did it reach it’s goal/s)
 - o Picture (data if available other related picture)

THE LAWS

- Environmental Protection Agency
- Clean Air Act
- Clean Water Act
- Montreal Protocol
- Koyoto Protocol
- Endangered Species Act
- Safe Drinking Water Act
- Delaney Clause – of Food and Drug and Cosmetic Act
- Convention on International Trade in Endangered Species of Wild Fauna (animals) and flora (plants)
- Resource Conservation and Recovery Act

3- Scientific Methodology

a. Part one: REVIEW

We will be using the online platform ck-12 for the scientific method standards. It is a free resource; all you need is a valid email address

The book we are using is the Biology for High School (zebra on cover)

<https://www.ck12.org/student/>

Scientific method is under 1.1

1-You will refresh and renew your science skills. Use the book online, take notes and document each step of the scientific method and what each entails.

b. Part two: Experimental Design

1-Take notes on experimental design portion 1.2

2- Watch the gummy bear lab video. How did they set up the experiment?

3-Watch the lollipop video. Answer the questions in the google form

*** This is not graded. You will use what you have learned for part 3.

c. Part three: Understanding – 100 points

-Turn in the first day of class. It is graded

1-Watch the Ted Talk on creating shark deterrent wet suits.

2-Follow the guide provided to create a formal lab write up of Shark deterrent wet suits. You will turn your paper in the first class.

*My suggestion, watch the talk in its entirety first. Look over the write up guide. Gather your thoughts. Re-watch the talk again filling in bullets for the headings. Then go back and write your formal write up.

LAB WRITE UP GUIDE:

Write in complete sentences. Underlined word(s) are section headings.

1. Title of paper
2. What is the purpose of experiment?
3. Research:
 - a. Was there research conducted PRIOR to experiment set-up? What did it find?
4. Identify the hypothesis?
5. Experimental design
 - a. How did they set up their testing design?
 - i. How many groups
 - ii. What as different between the groups
 - b. What were the variables: dependent and independent?
 - c. What is the control group? What is the experimental groups?
6. Data:
 - a. How did they determine if the group succeeded/failed?
 - b. Describe their findings.
7. Conclusion:
 - a. Using the data, did the experiment support their hypothesis on their wetsuit design?
 - b. Summarize the experiment and suit design
 - c. How will this experiment affect dive suit designs in the future?