



Dear AP Environmental Science Student,

Welcome to APES! I am very excited about next year and look forward to having you in my class. We will have fun and learn a lot.

The goal of the AP Environmental Science course is to provide students with the scientific principles, concepts, and methodologies required to understand the interrelationships of the natural world, to identify and analyze environmental problems both natural and human-made, to evaluate the relative risks associated with these problems, and to examine alternative solutions for resolving and/or preventing them.

This is a fast-paced course. Students will be expected to do reading, videos and note-taking outside of class in order to be prepared for class material. In order to master the content required by this course, students must be diligent. Staying current on all assignments is an integral part of preparing for the APES exam. Quizzes will be given regularly. I expect students to come to class daily with all assignments thoroughly completed and ready to participate in class discussion.

I will do my very best to provide a college level course/experience which not only prepares you for the AP Exam, but provides a solid knowledge of environmental science. I also intend for our class to be interesting and inspiring! You are fortunate to be able to take this type of college level course in the high school setting as part of a small group. The thought processes and study habits required for this class will also help prepare you for college level work in any course.

This year's summer assignment is below:

1. Reading/Writing: Read the short essay "Tragedy of the Commons" by Garrett Hardin.

http://www.garretthardinsociety.org/articles_pdf/tragedy_of_the_commons.pdf

When you have completed the reading, please respond to the following in handwritten **complete sentences**:

- a. What is Garrett Hardin's central idea in this essay?
- b. Do you personally agree with Hardin's central idea?
- c. Is the "Tragedy of the Commons" unavoidable?
- d. Identify one "commons" in your own life (at school, home, work) and explain how it is (or is not) being managed wisely to avoid the situation described in the essay.

You may also want to research who Garrett Hardin was and what his worldview included. We will discuss this in class. You may take any additional notes on the article and topic of "tragedy of the commons" as well. We will be completing a graded timed writing on this topic in class during the first week of school. You will be allowed to use any notes you have taken for the in class writing assignment.

2. Go Outside: See APES all around you as you explore, honor, consider, and **document your environment**. Read and follow instructions carefully! Your **ape** is on the last page of this document.

1. **FIND** at least 5 of the examples on the list (see list). All items can be found locally, but some better examples might be further away. Take your **ape** with you on your summer adventures!
2. **IMAGE** clearly showing the **example, yourself**, and the paper **ape**
3. **DOCUMENTATION** is **required** for each image. It must include:
 - (a) **identification (category and name** of specific item or place)
 - (b) **location** with map if needed (**NOTE: The same location may not be used for more than one item**)
 - (c) **date** the item was found and photographed
 - (d) **description or explanation** as noted on the list

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4. Your **PRODUCT** will be a Google slideshow **OR** a video shared with me or submitted on Canvas by Friday of the first week of class. Everything in the finished product must be school appropriate. This will be your first lab grade.

List of acceptable observations (you may do only one example from each category, also the same location may not be used for more than one item):

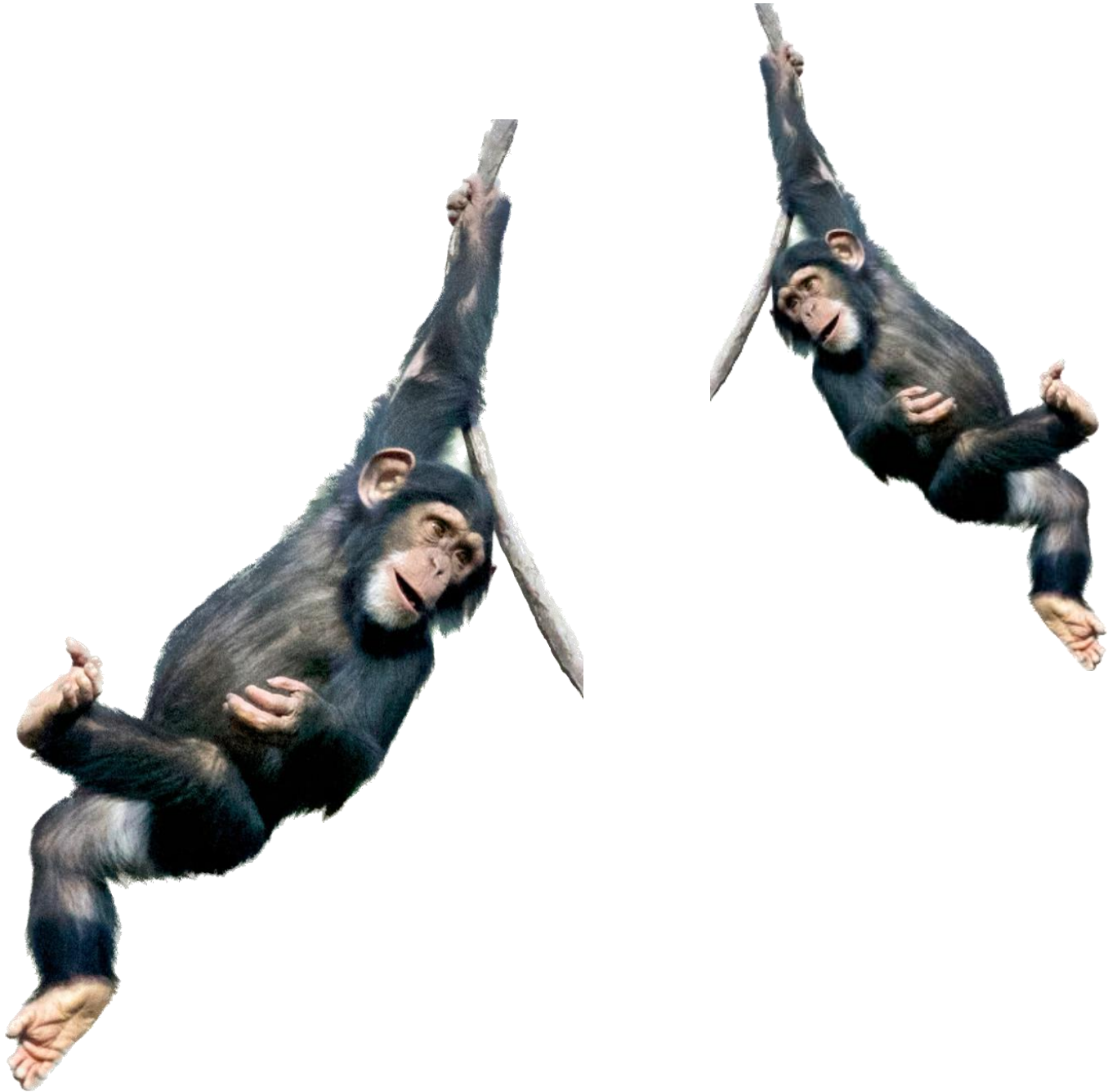
- **Water**-ocean, estuary, dam-controlled river, flowing river, standing water in a watershed with location and description
- **Biogeochemical Cycles**-Nitrogen, Carbon, or Phosphorus Cycle in action with location and description of where the element or compound has come from or is going to
- **Energy Flow**-carnivore consuming herbivore or carnivore, herbivore consuming producer, photosynthesis happening with location and names and roles of participating species
- **Biodiversity**-endangered plant or animal species in its native habitat or in a zoo, aquarium, or refuge habitat with identification, location, and explanation, **OR** invasive plant or animal species with identification including where it is invasive to and where it came from, **OR** keystone plant or animal species with location and explanation of role, **OR** indicator species with location, identification, and explanation
- **Forest**-example of forest management, fire, or logging method with type(s) of trees, location and explanation
- **Agriculture/Aquaculture/Meat production**-example of food being grown, raised, caught, or harvested with identification and description of methods, **OR** example of irrigation, ranching, or farming method with location and description
- **Pollution**-Point source or nonpoint source example of **water or air** pollution, must identify specific pollutant(s) and source or type of pollution
- **Energy Sources**-Renewable power generating plant (solar, wind, geothermal...), **OR** renewably powered appliance or vehicle with explanation, **OR** fossil fuel production or processing (mine, oil well, refinery...) with explanation
- **Waste Management**-landfill or hazardous waste disposal example with location and description **OR** recycling, reuse, or waste reduction effort with type(s) of waste and explanation
- **Current Environmental Issue**-any current environmental issue not listed above with location information and a description of the issue (sea level rise, global climate change, habitat loss or destruction, population...)

My e-mail address is: ejohnson@hpcacougars.org. Please feel free to email me if you have any questions about this assignment or any problems.

I hope you enjoy your summer and I look forward to seeing you in class this fall!

Mrs. Johnson

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