

AP ENVIRONMENTAL SCIENCE 2017-2018 SUMMER ASSIGNMENT

Welcome to AP Environmental Science. The major topics of the class we will be covering this year are as follows:

- Earth Systems and Resources- Atmosphere, Soil, Groundwater, and Geology
- The Living World- Ecosystems and Cycles
- Populations- Demographics, Dynamics and Growth
- Land and Water Use- Agriculture, Forestry, Mining, Fishing, and Global Economics
- Energy Resources and Consumption- Fossil Fuels, Nuclear Energy, Conservation and Consumption
- Pollution- Types of Pollution and their Impacts, Waste Disposal
- Global Change- Ozone, Global Warming, Loss of Biodiversity

The summer will give you a brief overview of all of the topics we will cover this year. It will cover some of the associated prerequisites and math calculations. The summer assignment will count for a portion of your first quarter grade. If you have any questions about this assignment please feel free to email me at: dkoslin@pasco.k12.fl.us . All work turned in must be your OWN work!! You may not work with other students to complete the assignments. Completed assignments will be collected at the end of the first week of school.

Part 1: Watch “Home” and Answer the video questions.

“Home” by Yann Arthus- Bertrand

Watch the video on YouTube and answer the following questions as you go. The link to the video is:

<https://www.youtube.com/watch?v=jqxENMKaeCU&feature=c4-videos-u>

1. Describe the conditions of early Earth.
2. What happened to the carbon that poisoned the atmosphere?
3. How did the agricultural revolution change the Earth?
4. How has Earth changed in the last 60 years since the use of oil became more widespread?
5. What is most of the grain in the US used for?
6. What led to the dramatic decline in the biodiversity of agricultural crop species?
7. How many kilos of water does it take to produce 1 kilo of beef?
8. How have cars shaped the way housing is laid out in the US and other developed countries?
9. How much has the volume of international trade increased since 1950?
10. What are your thoughts on how the video portrays Dubai? Is it self-sustainable?

11. Rainforests are cut down to make farmland for which products/crops?
12. What makes the growth of Lagos different from how most other cities grow?
13. Where does the water from Greenland's melting ice sheet go?
14. Why are the glaciers of mountains so important for the people in the lowlands?
15. What hope does the video offer at the end?

Give 3 specific examples that are portrayed in the video about each of the APES concepts listed below:

1. All living things are linked

- a.
- b.
- c.

2. Developed vs. Developing Countries

- a.
- b.
- c.

3. The carbon Cycle

- a.
- b.
- c.

4. Climactic Balance

- a.
- b.
- c.

5. Shortage of Resources

- a.
- b.
- c.

After watching the video, what topics are you most excited to learn about this year?

Part 2: Environmental Legislation

Create a chart similar to the one on the next page and fill in the missing information pertaining to important legislation. **Make sure this is typed so that you can add as many details as needed!** You can change the formatting to fit your preferences (example – make it landscape if that's easier for you). We will study MANY different environmental policies throughout the year. This is just to get you started.

Legislation Name	Is this a US or World Treaty, Law or Act?	Date Enacted (Year)	Description of the Legislation (Give the purpose, important founding organizations or people, any major points that you find)
Kyoto Protocol			
Montreal Protocol			
Agenda 21			
London Dumping Convention			
Helsinki Convention			
CITES			
SMRCA			
RCRA			
Lacey Act			
Clean Water Act			
Safe Drinking Water Act			
Clean Air Act			
Antiquities Act			
Endangered Species Act			
CERCLA			

Part 3. Using your textbook: Living in the environment:

Read Chapter 1. Environmental Problems, their causes, and sustainability
 Complete the review questions on page 25 (questions 1-10)

Part 4: Wildlife Notebook

You will need to purchase a composition notebook
 This notebook will be your very own naturalist notebook.

It is also recommended that you visit the local library or bookstore and borrow or purchase some field guides to exciting things such as birds, plants, insects, seashores ect. Peterson Field Guides are awesome!

During the summer/year you will use this notebook to explore and record. You will record the animals, plants in your wildlife notebook.

You can glue in pictures, draw pictures, tape in leaves ect.

Record the following in your wildlife notebook:

1. Common Name
2. Scientific Name (Genus species)
3. General description of organism
4. Home range of the organism/ habitat

Mandatory Minimum of 3 native Florida Plants and 3 native Florida animals.

Part 5: Summer Fun (this part is optional but highly recommended)

1. Research local parks. The parks can be state parks, national parks or county parks.
2. Select 2-4 local parks that have different habitats.
3. Visit the parks:
 - a. While at the parks document the local flora and fauna (plants and animals) make drawings or take pictures of the flora and fauna. Be sure to include what type of biome.
 - b. Make a comparison of the parks. Where are the parks located?
 - c. Are there any know invasive species that inhabit the park? If so what affects are they having on the indigenous species.
 - d. Write an essay about your day at the park.

I also highly recommend that you visit the local bookstore and purchase a Preparing for AP Environmental Science Prep book. They also sell flashcard sets that are useful as well.