Welcome to APES! Advanced Placement Environmental Science

This is such a valuable class. APES is a college-level course combining content from earth science, biology, chemistry, physics, math, and economics, government, and more. I honestly believe that this is the one of the most important courses that you will ever take, for if you understand and apply what you learn in this course, you'll make decisions throughout your life that will enhance global sustainability. It is important that you come to class at summer’s end with a basis from which to begin the year. Here are several assignments for you to do during the summer.

First, you are to watch the video clips below. They are all skills that we will be using from Day 1, and are presented by Mr. Anderson of Bozeman Mt. You may have watched some of his videos for your previous science courses, and I will be recommending others throughout the year. Each video is about 10 minutes long, and I would suggest that you plan to space them out over several days. You may want to take notes while viewing, but that is up to you.

Practice 1: Asking good Questions - https://www.youtube.com/watch?v=LJJJoKxDsyoQ
Practice 2: Developing and Using Models - https://www.youtube.com/watch?v=Gn26g5RFxPQ
Practice 3: Designing an Experiment - https://www.youtube.com/watch?v=QTfCyG1VVWo
Practice 4: Analyzing Data - https://www.youtube.com/watch?v=9NkJT-oYPkOa
Practice 5: Computational Thinking - https://www.youtube.com/watch?v=vJatZZVOnE0
Practice 7: Argument from Evidence - https://www.youtube.com/watch?v=9RJeVY0-WrA

In addition to watching the videos, you should brush up on your Algebra skills, making sure that you can solve for a variable and complete unit conversions. You will find a few practice questions and review of the concept here - https://www.khanacademy.org/math/algebra/units-in-modeling

Be prepared to demonstrate your mastery of the skills in the videos as well as the basic conversion and math skills during the first week of class.

Next, you are to complete an assignment that will introduce you to important environmental laws and events. This is the written part of the summer assignment, and it is due on the first day we have class. Hand in all parts of the written assignment in the order they are given below.

Environmental Laws, & Places of Significance (Written Assignment): The objectives of this assignment not only include gaining background necessary for the AP Exam, but also to place perspective on environmental issues and improve your body of knowledge in the subject area. Hand in all parts of the written assignment in the order they are given below on the first day of class. Do not confuse written assignment with essay. This is not an essay, and you may want to consider presenting your answer in well organized tables. As always, your grade will include your ability to follow directions and present the information as assigned in an orderly way.

Written assignment:

1. **Laws & Treaties.** State ONE law or treaty (U.S. or international) that is relevant to each of the following areas. State the full name of the law or treaty, the year, and an abbreviation if warranted (e.g., Clean Water Act is CWA). Include a sentence that describes the goal and a sentence on the strategy or implementation of the law/treaty.
   a. Pest Management
   b. Mining
   c. Fishing
   d. Global Economics
   e. Air Pollution
   f. Water Pollution
   g. Hazardous Chemicals/Human Health
   h. Stratospheric Ozone
   i. Global Warming
   j. Loss of Biodiversity
2. **Significant Locations.** Certain places or locations carry an environmental significance in so much that the locale is known mostly for the environmental event or disaster that occurred there. For each location below, state in one or two sentences the most significant environmental event or disaster including the year.

a. Aral Sea, Kazakhstan/Uzbekistan
b. Aswan Dam, Egypt
c. Bhopal, India
d. Centralia, PA
e. Chernobyl, Ukraine
f. Cuyahoga River, Ohio
g. Dead Zone, Gulf of Mexico
h. Donora, Pennsylvania
i. Deepwater Horizon, Gulf of Mexico
j. Fresh Kills, New York
k. Hong Kong Plastic Disaster (2012)
m. Johnstown, Pennsylvania
n. Lake Vostok, Antarctica
p. Love Canal, New York
q. Minamata, Japan
r. New Orleans, Louisiana (2005)
s. Ogallala Aquifer, United States
t. Prince William Sound, Alaska
u. Stringfellow Acid Pits, California
v. Sudbury, Ontario, Canada
w. The Dust Bowl, Oklahoma
x. Three Gorges Dam, China
y. Three Mile Island, Pennsylvania
z. Times Beach, Missouri
aa. Tohoku, Japan
bb. Valley of the Drums, Kentucky

* There will be a graded class activity based on this assignment within the first weeks of school *

** Academic integrity policy is in effect for this and all assignments. **

Oh, wait there is one more assignment…. go outside! Be outside and observe nature…. look around and look for the relationships that exist and realize you are part of nature.

You will learn a lot in this course, and I am looking forward to teaching you and learning with you next school year.

See you in September!

Mrs. Garbarino