

Welcome to AP Environmental Science!

I am excited to meet all of you this August! To prepare for this course, please complete Chapter 1 and 2 Questions attached below. These chapters are a review of what you are going to learn this school year and a review of the scientific method.

Also you will need to purchase the AP Environmental Science Study Guide, “5 Steps to A 5-AP Environmental Science” written by Linda Williams, you can purchase any of the versions from 2015 to 2018. I also would suggest buying one off Amazon if you want to save money.

You will need to complete the following out of this study guide:

Read Chapter 1-This will describe your AP Exam.

Read Chapter 2-This is about Planning Your Time

Complete Chapter 3 Diagnostic Exam and see how you do!!

Read Chapter 4-Approaching Each Question Type

Enjoy your summer and see you soon!! If you need to get a hold of me, my email is [widenerl@pcsb.org](mailto:widenerl@pcsb.org).

**ALL OF THE ABOVE IS DUE: AUGUST 13<sup>h</sup> for Blue Day kiddos and  
AUGUST 14<sup>th</sup> for Gold Day kiddos!**

Thank You,

Mrs. Iovino

## Practice Questions – Chapter 1

### Environmental Problems, Their Causes, and Sustainability

1. Describe what is meant by the phrase “*an environmentally sustainable society*” as related to the human population.
2. Distinguish between (a) natural capital (b) natural resources (c) natural services (d) solar capital (e) natural capital degradation.
3. What is the difference between *economic growth* and *economic development*? Describe **two** basic ways that economic growth can be accomplished.
4. Distinguish between *developed countries* and *developing countries*. Give **three** key characteristics of each one.
5. Define and give **three** examples of environmental degradation.
6. What is an “*ecological footprint*”? Using specific countries as examples, explain the difference between the footprint of a developing and developed country.
7. What is “*culture*”? Describe **three** major cultural changes that have occurred since humans arrived on earth. Why has each change led to more environmental degradation? What is the *environmental* or *sustainability revolution*?
8. Identify **five** basic causes of the environmental problems we face today.
9. What is “*poverty*”? In what way do (a) poverty or (b) affluence affect the environment. Explain the problems we face by not including the harmful environmental costs in the prices of goods and services.
10. Distinguish between *planetary management*, *stewardship*, and an *environmental world view*.

### Vocabulary Words

Exponential growth  
Environment  
Environmental Science  
Ecology  
Environmentalism  
Sustainability  
Gross Domestic Product (GDP)  
Per capita GDP  
Per capita GDP PPP  
The Wealth Gap  
Resource  
Conservation  
Renewable resource  
Non-renewable resource  
Sustainable yield  
Point sources  
Non- point sources

## Practice Questions – Chapter 2 Science, Matter, Energy, and Systems

1. Distinguish between *inductive reasoning* and *deductive reasoning*. Give an example of each. Explain why scientific theories and laws are the most important results of science.
2. Contrast the “Independent” and the “Dependent” variable.
3. What is a *feedback loop*? Distinguish between a *positive feedback loop* and a *negative feedback loop* and give an example of each.
4. What is the difference between a *time delay* and a *synergistic interaction in a system* and give an example of each.
5. What is *energy*? What is *energy quality*? Distinguish between *high quality energy* and *low quality energy*. Give an example of each.
6. Define the 1<sup>st</sup> Law of Thermodynamics and the 2<sup>nd</sup> Law of Thermodynamics and give examples of each as it relates to Environmental Science.

### Vocabulary Word

Peer review  
Controlled experiment  
Hypothesis  
Natural Radioactive Decay  
Nuclear fusion  
Nuclear fission  
Radioisotope  
Chain reaction