

Welcome to AP Environmental Science!

SUMMER ASSIGNMENT

**** Due Friday, September 15th ****

You are expected to uphold the highest level of academic integrity when completing all assignments in this course.

- 1.** Sign up for our google classroom using the code: **mhz2wg5**
- 2.** Take notes on chapters 1, 2, and 20
We are using a new textbook this year called “Environmental Science for AP” by Friedland and Relyea. Be sure you are taking notes from the correct textbook. A PDF of each chapter can be found on our google classroom.
For each chapter, take notes on key words, definitions, and supporting facts. This should be approximately 3-4 pages per chapter and be **HANDWRITTEN**. Typed notes will not be accepted.
- 3.** Graphing assignment
For each data set, be sure to graph the data using the appropriate kind of graph and answer all of the accompanying questions.
- 4.** Math Review
For the Math portion of the assignment, please be sure to **SHOW ALL WORK**, and **DO NOT** use a calculator! These problems were designed to be solvable without a calculator because you **cannot use a calculator on the AP Environmental Science exam**.

All work must be handwritten.
No typed work will be accepted

Please email me at calbanesedemair@shsd.org with questions – I will do my best to respond promptly.

Graphing Assignment

Directions: Use the following steps to create graphs and answer questions for each of the problems below.

Steps to graphing data:

1. Identify the variables. The independent variable is controlled by the experimenter. The dependent variable changes as the independent variable changes. The independent variable will go on the X axis and the dependent on the Y axis.
2. Determine the variable range. Subtract the lowest data value from the highest data value.
3. Determine the scale of the graph. The graph should use as much of the available space as possible. Each line of the scale must go up in equal increments.
4. Number and label each axis.
5. Plot the data. If there are multiple sets of data on one graph, use a different color for each.
6. Either draw a smooth, best-fit line for the data set or connect the data points with a straight line. You will need to determine on your own which is more appropriate.
7. Title the graph. Titles should explain exactly what the graph is showing and are often very long (almost a whole sentence). Don't be afraid of a long title!
8. Create a key to the graph if there is more than one set of data

Name: _____

APES BASIC MATH SKILLS

Directions: DO NOT use a calculator! These problems have been set up with numbers that multiply and divide evenly to produce whole number answers, just like you would find on a typical APES exam.

1. 14000 millimeters = _____ meters

2. 6544 liters = _____ milliliters

3. 0.078 kilometers = _____ meters

4. 17 grams = _____ kilograms

5. Put the following in scientific notation:

a. 0.025 = _____ b. 1150000 = _____ c. 6070 = _____

**** SHOW YOUR WORK FOR ALL OF THE FOLLOING PROBLEMS ****

6. Write your answers in scientific notation:

a. $(2.96 \times 10^7) + (1.0 \times 10^7) =$ _____

b. $(6.0 \times 10^6) \div (3.0 \times 10^4) =$ _____

c. $(2 \times 10^5) * (3 \times 10^{10}) =$ _____

d. $(8 \times 10^{12}) - (1.2 \times 10^{12}) =$ _____

e. $(2.96 \times 10^7) + (1.0 \times 10^8) =$ _____

f. $(6.0 \times 10^6) \div (3.0 \times 10^{-4}) =$ _____

g. $(2 \times 10^5) * (3 \times 10^{-10}) =$ _____

h. $(8 \times 10^{12}) - (1.2 \times 10^{11}) =$ _____

7. What is 45% of 1800?

8. A gas engine is 6% efficient. What portion of a full 21 gallon tank of gas is wasted?

9. The Greenland Ice Sheet contains 2,850,000 cubic kilometers of ice. It is melting at a rate of .006% per year. How many cubic kilometers are lost each year?

10. In a small oak tree, the biomass of insects makes up 3000 kilograms. This is 4% of the total biomass of the tree. What is the total biomass of the tree?