AP Environmental Science Summer Homework:

You are making a great choice in taking AP Environmental Science next year. Your thinking will be challenged about what you know about Everett and Washington State and then applying the concepts to a national and worldview. In order to prepare for the school year so we hit the ground running in September, you will need to complete some summer tasks. The **due date** for all summer assignments will be Sept. 14th. I am excited about what the year will bring and helping everyone be successful when taking the AP exam next May. If you have questions about tasks, email Marji Bovey at mbovey@everettsd.org, Brad Kernan at bkernan@everettsd.org or Kirsten Smith at ksmith@everettsd.org.

**Videos:**

There are many quality videos available on Netflix and YouTube about the environment. One of the videos you will need to watch is The Lorax; you can find it on YouTube. In addition, pick two of the following videos to watch and reflect about this summer. An example is attached to the end of this assignment.

 **Netflix-**

Fed-Up: Documentary about obesity concern in the United States

Gasland: Documentary about utilizing fracking for accessing natural gas.

Fracknation: Rebuttal documentary about utilizing fracking for accessing natural gas

True Cost: Documentary about the fashion industry’s impact on developing nations.

Plastic Paradise: Documentary regarding the use of plastic in society.

Sustainable: Documentary looks at agricultural practices in the United States.

 **YouTube-**

China’s Mega Dam (1hr 30minutes): Discovery Channel documentary describing the impact building the largest dam in the world had on the Earth.

Strange Days on Planet Earth: Documentary narrated by Ed Norton about invasive species

The Lorax: Required. Watch the older version that is about 30 minutes long.

PBS Global Warming, the Signs and the Science: Documentary addressing the impact of climate change on several communities.

FLOW, For Love of Water: Documentary looking in the industrialized world’s use of water from developing nations and even in the United States.

Use the Decomposing Algae Film Review at the end of the Homework Packet to complete your reflections about the additional videos. We will do activities regarding the Lorax during the first weeks of school.

**Nature Excursions**

During the summer, we would like you to go on walk-abouts at least 3 times observing how people interact and influence their surrounding environment. Some ideas for locations include:

Sporting Event (Professional or amateur)
National Park
City Park
Everett Mall
Retail/Grocery Stores
Your Neighborhood
Jetty Island
Downtown Everett
You may come up with your own idea too!

Your observations should be between 15-30 minutes in length. Keep a small journal of your observations. Use the information you collect for writing a one-page summary or notable events during your walks. If you are able, compare and contrast locations with similar purpose, i.e. How is Memorial Stadium similar/different during an Aquasox game than a Mariner game at Safeco Field. As you conduct your observations, please keep your parents/guardians aware of where you’re at and what you’re accomplishing. First and foremost, you need to stay safe.

**Photo Scavenger Hunt:**

Below is a list of vocabulary words that you can experience in your life, and I bet you don’t even know it! A great way of learning is connecting what will take place in class to our everyday life. This stimulates thinking in never before seen ways.

Your job is to build a picture-file library for vocabulary of Environmental Science words you encounter. You must take a picture of the image being represented. For the photo to count, you must be present in the picture showing me the phenomenon/term. Unlike the video reviews and experimental design, if you want credit for the scavenger hunt, all submissions are due Sept. 8th. Building your library is a contest. Winners will receive a prize at the end of the first unit. No late submissions.

Eutrophication Keystone Species Heterotroph

Autotroph Ecosystem Detritivore

Adaptation Native Species Invasive Species

Generalist Species Specialist Species Point Source Pollution

Non-point Source Pollution Mutualism Pioneer Species

Coevolution Fishery Industrialized Farming

Subsistence Farming Oceans Freshwater life zone

Saltwater life zone Runoff Surface water

Watershed Hydropower Solar Power

Carnivore Herbivore Reuse

*Example:* *Hydropower*

Hydropower:

Grand Coulee Dam

Your picture does not have to be in color. The dimensions of the card should be between a 3” x 5” card (the size of the example) or a 5” x 7” card.

Your cards do not need to be
typed, but the ability to read (teacher’s discretion) is a must.

A dam is built for storing water. When electricity is needed, water is released and
flows through a turbine (usually dams have several) causing the turbine to spin.
The spinning motion activates a generator and produces electricity.

**Decomposing Algae: Documentary Film Review Assignment Sheet**

**Description:** A film analysis is not a summary of the plot; it goes deeper into analysis and reaction.

**IT MUST BE TYPED** and double-spaced using a 12-point, easily readable font such as Times New Roman, Calibri, or Tahoma.

**Introductory PARAGRAPH (not bullet points) – 3 points**Provide basic information about the movie, and a sense of what your review will be about. Include:

\_\_\_\_\_ Introduction to the movie (1-2 sentences).

\_\_\_\_\_ Title (underlined)

\_\_\_\_\_ Director

\_\_\_\_\_ Publication Information: year released, length of movie

\_\_\_\_\_ Who funded the documentary?

\_\_\_\_\_ Movie's thesis (main idea) / theme / purpose?

**Body - 9 points**There are two main sections. The first section is an explanation of the documentary’s topic. The second section is your thoughts about the movie with examples used to support your opinion.

\_\_\_\_\_ **Explanation – 3 points**Give a brief (3-4 sentences) summary of the documentary. Identify the main idea and give supporting evidence. Don’t give too much away, this is not a movie report:

* + Summary
	+ Central conflict

\_\_\_\_\_ **Analysis and Evaluation – 6 points**In this section, analyze or critique the movie. Answer the questions listed below; be sure that you explain and support your ideas with examples.

* \_\_\_How did the director achieve his or her purpose?
* \_\_\_What are the strengths and weaknesses of the documentary?
* \_\_\_Describe the effectiveness of the interviews/visual design/music/sound.

**Conclusion – 3 points**

\_\_\_\_\_ Briefly (3-4 sentences) conclude the review by pulling your thoughts together. You may want to say what impression the movie left you with, or emphasize what you want your reader to know about it. *Be sure to include a grade, A-F*, in your review with a recap of why the documentary earned the grade.

**Decomposing Algae: What’s with Wheat** ----An Example----
What’s with Wheat was directed by Justin Brown and released in 2016. The documentary is 78 minutes long and, at this point, the companies financing the film is undetermined. The main idea of the documentary is the probable linking of wheat to medical issues. Throughout the documentary, the evolution of the human diet over years is brought back to how the diet influences human health.
 The central theme of the documentary focuses around wheat in the human diet. The documentary begins with the writer, Cyndi O’Meara telling her personal story about health issues and how she handled her personal issues. From there, many professionals spoke about how wheat has changed over the years and the influx of chemicals into food.
 One of the ways the director met his purpose was reaching out to both PhDs, nutritionists, and activists around the world. This was a particular strength of the video since it allowed differentiated levels of perspective for viewers to watch. Dr. Vandana Shiva is an excellent choice for an interviewee as she is a prominent activist in India that has helped change how global companies are influencing her country. She has received numerous awards and has a life-long goal of protecting biodiversity. On the other hand, a struggle of this documentary is the lack of counterarguments. Understandably, a documentary has the purpose of getting out the promoted message. However, when forming an educated debate, both sides of an argument should be stated in order to form an educated decision. Another struggle with the documentary is the promotion of Cyndi O’Meara’s company Changing Habits. She makes a statement about trying a 6-week wheat free diet. When you go to the website Changing Habits, the same challenge is promoted underscored with products you can buy supporting your cause of a wheat free life. Now the struggle is not a critical flaw with the documentary as other documentaries have used the same tactic. The interview style was captivating and kept interest during the entirety of the film. Music was appropriately placed making the viewer interested in what would come next. There was nothing visual spectacular about the film as most interviews were done in home settings with plain backgrounds.
 The impression the documentary left on me was looking into both sides of the story. Wheat is an integral part of society, so I had the question of “What are other people saying about the same topic?” I have enjoyed what I learned from the documentary and what I discovered from independent research. As a result, I would give this documentary a B.