

APES Summer Assignment

Please join Google Classroom AP Environmental Science Summer section. Use code: **yp6zbif**. All research questions may be answered on your own copy of this document. Please use a different color text such as red or blue to make your responses stand out. Your completed responses can be submitted on Google Classroom in the section you just joined. This will not be the class code for the regular year, only the summer assignment.

Part 1	Intro to AP Environmental Science	This will be completed on Edpuzzle. You must first join Google Classroom "AP Env Sci Summer" Use join code: yp6zbif (20 points)
Part 2	Tragedy of the Commons	An important economic topic that is essential to sustainability. Choose to READ or WATCH (20 points)
Part 3	Easter Island	Environmental READING assignment. Questions must be answered below. (30 points)
Part 4	Ecological Footprint	Use this CALCULATOR to complete this section. (10 points)
Part 5	iNaturalist	You will be making environmental observations with your app. (20 points)

Part 2 - Tragedy of the Commons

1. In your own words, summarize the tragedy of the commons in one sentence.
2. Many people associate the control of resources by the government to the concept of SOCIALISM. Do you feel the government should be controlling "free resources?" Explain why or why not.
3. Give an example of a "commons" today and explain how it is being overused.

Part 3 - Easter Island

Discussion Questions Jared Diamond. "Easter Island's End." Discover magazine, August 1995.

1. The article describes the former abundance of trees and forests on Easter Island. Describe several factors that contributed to the extinction of trees on the island.
2. Imagine that you arrived on the island before the tree populations were extinct, but after the tree populations had started to decline. Suggest a management plan that could have helped the Easter Islanders save the tree populations from extinction.
3. What have scientists concluded about the levels of plant and animal biodiversity on Easter Island in the past? Describe how scientific evidence supports these conclusions.
4. How do current levels of plant and animal biodiversity on Easter Island compare with past biodiversity levels?
5. Can today's levels of biodiversity on Easter Island be explained in terms of complexity and disturbance? Explain your answer.
6. Diamond likens the demise of the civilization on Easter Island with the overpopulation and resource destruction on the entire planet. Do you feel that this comparison is justified? Why or why not? What are the differences?

Part 4 – Ecological Footprint (10 points)

1. Define the term **ecological footprint**:
2. How many "Earth's would your lifestyle require?"
3. Name three things you could do in your daily life to lower your ecological footprint.



iNaturalist

Part Five - iNaturalist (20 points)

Download the iNaturalist app. Using your iNaturalist app, please make sure your account is logged in, and that you have joined the project “Toms River East APES.” In this way, we can all see what you have observed. Please plan on a day at the beach or Bay to make observations. You can take pictures of sea birds, shells, fish, marine plants...literally anything you encounter that is alive at the Bay or Beach. Be sure to suggest an identification from the suggested list, and you will be amazed to see people confirm or suggest a new identification.

To receive full credit for this section you will need to make 10 observations. Please make sure they are related to our local marine/estuarine ecosystem. Have a great summer!