

## AP Environmental Science w/ Ms. Puelle – 2023-2024 – Summer Assignment

Welcome to AP Environmental Science, also known as APES! In an effort to solidify your understanding of global geography, an essential pre-requisite for understanding Earth's systems and their influence on humans, you will be **creating a physical model** for your summer assignment. **Choose ONE option to complete.**

**OPTION A – Specific Continent:** Create a PHYSICAL model/map of ONE of the following continents: Africa, Asia, Australia/Oceania, Europe, North America, or South America. *Include the features listed below for your chosen continent:*

1. Major bodies of water (rivers, lakes, seas, etc.)
2. Major geological features (mountain ranges/peaks, valleys/canyons, volcanos, etc.)
3. Predominant terrestrial biome(s)
4. Energy/mineral resources and/or facilities (oil fields, coal deposits, hydroelectric dams, mines, etc.)
5. Important cities and countries

**OPTION B – Whole World:** Create a PHYSICAL model/map of the world. *It must include information for the entire globe on ONE of the following phenomena:*

1. Tectonic plate boundaries (locations and types)
2. Global wind patterns (locations and names)
3. Ocean currents (locations and names)
4. Major fisheries (locations and types of fish)
5. Agricultural crops OR livestock (locations and types of crops/livestock)

This assignment is due on **Tuesday, September 5, 2023**. *It is highly recommended that you complete this project BEFORE the start of the school year.*

**\*NOTE:** Physical models can range from two-dimensional drawing to three-dimensional sculptures. The scale, medium, and organization of your model are up to you (including the possible need for written or verbal explanations of parts of it). You will be required to bring your model to school and present it to your peers. No part of your model should be flammable or perishable (ie no fresh food), but it may have moving parts, require the outdoors, or be interactive.

Please email [rpuelle@bcps.org](mailto:rpuelle@bcps.org) if you have any questions.

*Refer to the following page for this assignment's rubric and some starting resources.*

Refer to the rubric below often in completing your model:

Category	4	3	2	1	0
Accuracy – <i>Is the information on the model correct?</i>	All information is correct.	Most information is correct.	Half of the information is correct.	Less than half of the information is correct.	None of the information is correct.
Scope – <i>Does the model include all the required phenomena?</i>	All required features and data are included.	Most required features and data are included.	Half of the required features and data are included.	Less than half of the required features and data are included.	None of the required features and data are included.
Originality – <i>Is this model significantly different from other existing or peer-created models?</i>		Model shares very few (if any) features with existing models	Model shares some features with existing models.	Model shares most features with existing models.	Model is an exact replica of an existing model or models.
Professionalism – <i>Is model easy to understand, neat, edited, and attractive?</i>	Model is all four of the following: - easy to understand - neat - edited - attractive	Model is three of the following: - easy to understand - neat - edited - attractive	Model is two of the following: - easy to understand - neat - edited - attractive	Model is one of the following: - easy to understand - neat - edited - attractive	Model is none of the following: - easy to understand - neat - edited - attractive
Cited – <i>Were research sources cited in model?</i>		All sources were cited.	Most sources were cited.	Two or fewer sources were cited.	Sources were not cited.
Total out of <b>18</b>					

Your research may be completed in whatever method you choose (ie books, maps, atlases, the internet, etc.). **While you do not have to make a formal citation page for your model, you must include the titles, authors, organizations, and/or websites/urls for all your research sources.**

Here are a few digital resources if you need a place to start, but do not limit yourself to them alone:

Resource	Description
<a href="#">National Geographic MapMaker</a>	Create world and regional maps featuring extensive base layers with human and nature-centered information. <i>Click “Create a Map” and scroll thru or “Search for layers” on left-hand menu.</i>
<a href="#">USGS Maps</a>	One section of the United States Geological Survey database featuring up-to-date maps on many features of the US. <i>Search from “Map Releases,” “Topo Maps,” or “Volcanic Maps” OR peruse “All Maps” from the left-hand menu.</i>
<a href="#">Encyclopedia Britannica: World Atlas</a>	Observe and read about the world in a traditional atlas. <i>Double click regions of interest and click the “Summary,” “Profile,” and “Related” options in the black viewing bar to learn more.</i>
<a href="#">geography.com</a>	Starting point site for contemporary and historical information. <i>Scroll down and check for relevant links under each heading.</i>
<a href="#">BiomeViewer</a>	Interactive digital model of terrestrial biomes on the globe. <i>Click “Start Interactive” to launch. Click a location to see additional information on that location’s biome. Click the arrows in the left-hand menu to examine other global features like terrain, temperature, and precipitation.</i>