

AP Biology Summer Assignment: This will also be on my blog at:

<http://ulearn.anderson.kyschools.us/sites/achs/ccoooper>

## Biomes

Most of you are familiar with the concept of biomes. This will be one of the topics that you will be responsible for covering on your own. Please answer the set of questions below for each of the listed biomes. Our first day back, August 16<sup>th</sup>, there will be a test covering the information that you should know after this assignment. At the end of this document are 4 sample test questions for your enjoyment.

1. Draw, color, and label a picture on an 8.5 X 11 sheet of paper and define the following zones found in aquatic biomes on another sheet of paper.
  - a. Littoral
  - b. Limnetic
  - c. Photic
  - d. Benthic
  - e. Aphotic
  - f. Pelagic
  - g. Abyssal
  - h. Neritic
  - i. Oceanic
  - j. Intertidal
2. Explain why lake turnover occurs and define where and what a thermocline is.
3. For the following aquatic biomes describe the Physical and chemical environments, geologic features, photosynthetic organisms, heterotrophs, and what impacts past, present, and future humans have imparted on the biome (an example is attached):
  - a.
  - b. Lakes
  - c. Wetlands
  - d. Streams and Rivers
  - e. Estuaries
  - f. Intertidal Zones
  - g. Oceanic Pelagic Zones
  - h. Coral Zones
  - i. Marine Benthic Zone
4. Create a climograph that has annual temperature on the Y-axis and annual Rainfall on the X-axis for the following terrestrial biomes use different colors to represent the different biomes:
  - a.
  - b. Tropical Forest
  - c. Savannah
  - d. Desert
  - e. Chaparral
  - f. Temperate Grassland
  - g. Temperate Broadleaf Forest
  - h. Northern Coniferous Forest
  - i. Tundra
5. For the above listed terrestrial biomes describe the World distribution, Precipitation, Temperature, Plants, Animals, and past, present, and future human impacts.
6. Create and Name a unique biome that includes all of the characteristics above. Also include what biome or biomes it would replace or flow into. Make sure to include a climograph according to the above parameters.

**Sample Test Questions: Choose the answer that is most correct**

- The benthic zone in an aquatic biome
  - o Often supports communities of organisms that feed largely on detritus
  - o Supports communities of highly motile animals
  - o Is one where you would expect to find a thermocline
  - o Has the widest seasonal temperature fluctuations of all aquatic zones

- Is always devoid of light
- An area where different terrestrial biomes grade into each other is known as
  - Littoral Zone
  - Cline
  - Abyssal Zone
  - Ecotone
  - Vertically stratified canopy
- Tropical grasslands with scattered trees are also known as
  - Taigas
  - Tundras
  - Savannahs
  - Chaparrals
  - Temperate Plains
- Which biomes is able to support large animals despite moderate amounts of rainfall
  - Tropical Rain Forest
  - Temperate Forest
  - Chaparral
  - Taiga
  - Savannah