

Biology Unit Schedule: Weeks 4-6

Unit	Chapter(s)	Essential Questions:
Ecology	3,4.5.6	--How are organisms and their environments related? --How are humans related to these organisms and the factors that affect them? --To what extent do humans influence the natural environment?

Timeline:

Date	In Class	Activities	Homework
Week 4	Chapter 3 Pretest Discuss Chapter 3		Read Chapter 3 Do ?'s #1-4p.65, 1-5p.73, 1-5p.80 Chapter 3 Pretest
Week 5	Discuss Chapter 3	Lab: "Investigating Chemical Cycles in the Biosphere" p. 65 <i>Biology Laboratory Manual A</i> <i>OR</i> Lab: "Interdependence of Plants and Animals" p. 14-1 <i>Biology with Computers Lab Manual</i> Game: Trophic Levels	Poster: Chemical Cycles in the Biosphere— <i>Instructions Below</i> Study for Chapter 3 Quiz Read Chapter 4 Do ?'s #1-5 p. 89, 1-5 p. 97, 1-5 p. 105, 1-5 p. 112 Chapter 4 Pretest
Week 6	Chapter 3 Quiz Chapter 4 Pretest Discuss Chapter 4	PowerPoint: Biomes/ Aquatic Ecosystems —Go to library and computer lab to research	PowerPoint: Biomes/ Aquatic Ecosystems— <i>Instructions Below</i> Study for Chapter 4 Quiz
Week 7	Chapter 4 Quiz Chapter 5 Pretest Discuss Chapter 5	Light Intensity Lab	Complete Lab Report for Light Intensity Lab Read Chapter 5 Do?'s #1-6 p. 123, 1-4 p. 127, 1-5 p. 132

Poster: Chemical Cycles in the Biosphere

Directions: Make a poster on a large piece of cardboard in which you draw the cycles below.

- Water Cycle
- Carbon Cycle
- Nitrogen Cycle
- Phosphorous Cycle

Write a caption below each of your drawings in which you explain each cycle (at least one paragraph per caption).

Powerpoint: Biomes/ Aquatic Ecosystems

Directions: Make 8 PowerPoint slides about one of the biomes below (include a title slide in your 8 slides). Write at least one paragraph in your OWN words as a caption for each slide. Remember to include MLA references for information that you procure from an outside source (e.g. your textbook, the internet, a reference book, photos, etc.)

Pick one of the following biomes and aquatic ecosystems:

- Tropical Rain Forest
- Tropical Dry Forest
- Tropical Savanna
- Desert
- Temperate Grassland
- Temperate Woodland and Shrubland
- Temperate Forest
- Northwestern Coniferous Forest
- Boreal Forest
- Tundra
- Freshwater Ecosystems (Flowing-water, Standing-water, and Freshwater Wetlands)
- Estuaries
- Marine Ecosystems (Intertidal Zone, Coastal Ocean, and Coral Reefs)

In your slides, discuss the following topics:

- Abiotic conditions that prevail in your biome or aquatic ecosystem
- Dominant plants (or sedentary organisms...e.g. coral)
- Dominant wildlife
- Biodiversity estimate for your ecosystem (number of species, etc.)
- Geographic distribution—where is your ecosystem found?
- How your ecosystem contributes to the chemical cycles in the biosphere (water cycle, carbon cycle, nitrogen cycle, phosphorous cycle)
- Why your ecosystem is important for the biosphere and for humans
- Factors currently threatening the existence and viability of your ecosystem

Rubric:

Biomes/Aquatic Ecosystems Power Points will be graded for the following:

Topic	Point Value
Title Page	5 points
Abiotic conditions that prevail in your biome or aquatic ecosystem	5 points
Dominant plants (or sedentary organisms...e.g. coral)	5 points
Dominant wildlife	5 points
Biodiversity estimate for your ecosystem (number of species, etc.)	5 points
Geographic distribution— where is your ecosystem found?	5 points
How your ecosystem contributes to the chemical cycles in the biosphere (water cycle, carbon cycle, nitrogen cycle, phosphorous cycle)	5 points
Why your ecosystem is important for the biosphere and for humans	5 points
Factors currently threatening the existence and viability of your ecosystem	5 points
References	5 points

Total: 50 Points

*Note: Each of these categories will be scored based on their accuracy, thoroughness, originality (i.e. you wrote it yourself), and applicability to our study of biomes and aquatic ecosystems.