

Biology Unit Schedule: Weeks 7-10

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 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
Week 8	Discuss Chapter 5	Lab: "Modeling Exponential Growth" p. 85 <i>Global Science Lab Manual, 1996</i> Activity: "Interference in Natural Communities: The Kaibab Deer Story" p. 123 <i>Global Science Lab Manual, 1996</i> Lab: Predator/Prey Interactions Wksts: 6-1, 6-2,6-3, 6-4	Complete Lab Report for Lab: "Modeling Exponential Growth" p. 85 <i>Global Science Lab Manual, 1996</i> Complete Activity: "Interference in Natural Communities: The Kaibab Deer Story" p. 123 <i>Global Science Lab Manual, 1996</i> Complete Lab Report for Lab: Predator/Prey Interactions Study for Chapter 5 Quiz Read Chapter 6 Do ?'s #1-5 p. 143, 1-4 p. 149, 1-5 p. 160
Week 9	Discuss Chapter 6	Essay: How are we related to Earth's systems? Debate: Environmental Use and Sustainability	Essay: How are we related to Earth's systems?—Instructions Below Prepare for Debate: Environmental Use and Sustainability—Instructions below

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Week 10	Chapter 6 Quiz Chapter 2 Pretest	Global Climate Change Research	Read Chapter 2 Do ?'s # 1-6 p. 39, 1-5 p. 43, 1-4 p. 48, 1-5 p. 53
Week 11			

Chapter 6 Essay: How are we related to Earth's systems?

Directions: Write a 4-page, double-spaced, 12-point Times font essay about the following. This essay must be typed.

Answer the following questions in your essay through the use of a strong *thesis statement*, *arguments* that support your thesis, and factual *evidence*:

- How are we *intrinsically* related to Earth's cycles (water cycle, carbon cycle, nitrogen cycle, phosphorous cycle) and ecosystems?
- What problems are earth's ecosystems currently facing? How does this affect us?
- How do our actions contribute to these problems?
- To what extent do we have the right to destroy the natural world for our own comfort and convenience?
- What can you do in your own daily life to correct these problems; how can you make a difference? What will it take for you to do these things?

Your essay will be corrected using the 6+1 rubric.

Debate: Environmental Use and Sustainability

Directions: The class will split into two panels: those in conventional businesses, government, and economics who argue for consumerism and resource consumption vs. those who argue for sustainable thinking and preservation of the environment. Students in each group must choose a role to play and research the salient debate points of that role. Students on each side of the debate must back up their debate points with facts gleaned from their research. The debate will be run using parliamentary procedure with Mr. Hollingworth as the moderator. Students will be graded on their participation with others in their group during research and as they are developing their arguments—this will be their process assessment grade. Students will be graded on the accuracy, applicability, and eloquence of their statements and rebuttals during the debate—this will be their authentic assessment grade. Refer to Mr. Hollingworth’s rubrics on his website to learn more about both authentic and process assessments—these go on the “Tests/Quizzes” portion of your grade and are a good way to earn points if you tend not to do well on summative assessments (tests and quizzes).

Groups:

Non-sustainable

Businesspersons: Petroleum

Businesspersons: Lumber

Businesspersons: Cattle

Businesspersons: Manufacturing

Businesspersons: Advertising

Businesspersons: Transportation

Government Representatives: conventional use of resources, conventional economic philosophy

Economists: conventional economic theory

Sustainable

Economists: Sustainable

Venture Capitalists: who want to invest in sustainable technologies

Indigenous Groups

Community Action Group: Citizens for a Sustainable Future

Sustainable Designers

Businesspersons: Sustainable technologies

Economists: Sustainable

Businesspersons: Sustainable transportation

Government Representatives: Smart Growth, Sustainable use of resources

Environmentalists

Debate Points:

Non-sustainable

- Economic growth is good for the economy because it provides jobs
- Resource use fuels economic growth
- Adam Smith model of economic growth—continuously increasing demand fuels economic growth
- Consumerism is a healthy part of our society
- People who accumulate more wealth and goods are happier
- Free-market economics is good because those who work hard reap the benefits of their labor
- Resources should not be distributed equally; those who work hard for their money should be able to control all the resources they want
- People who are poor probably do not have the intellect or drive to make themselves wealthy

Sustainable

- We are intrinsically related to our ecosystems, so we should conserve them
- Continuously spiraling growth is impossible vis a vis the “Global Spaceship” concept—we only have a finite amount of resources
- Poverty is a major cause of environmental problems—wealth must be re-distributed to evoke a demographic transition
- Poverty is due to an inherent lack of opportunity (ex: access to good education, jobs, etc.) for those who are impoverished; wealth is not possible for the masses without this opportunity
- There is a fundamental disparity in economic opportunity for groups in lower socio-economic categories
- All people have an equal right to be healthy and to consume a sustainable amount of resources; wealthy people consume more than their share and poor people consume less than their share
- Sustainable designs that reduce resource consumption must be explored
- Consumerism is not healthy—buying more things does not make people happier
- Consumerism is based on short-term thinking and greed instead of long-term sustainability

Global Climate Change Presentation Research Template

Directions: Research global climate change by looking up at least five sources from the Global Climate Change Presentation webpage. Use the information you glean from these sources to answer the following questions in order to prepare yourself for David Kroodsma's presentation.

1. What is global climate change? What is it caused by?
2. How does global climate change affect earth's ecosystems?
3. How does global climate change affect earth's people?
4. How does global climate change affect us here in Bolivia?
5. What policies are in place or are being proposed that are related to global climate change (list at least 5)? Describe each policy you list.
6. What do YOU think about global climate change? Is it something that affects you? Why or why not? What should we do about it?
7. Write at least five questions that you would like to ask Mr. Kroodsma during his presentation.
8. Make a bibliography in MLA format for the resources you used to research for this template. You must include at least five sources. Go to this website to learn about MLA format:

<http://www.hollingworthadventures.com/SchoolPages/MLAFormatWebResources.html>