

Earth Systems I/Unit 1 Study Guide

es1u1sg (Gaia - the earth as a large system)

Learning Objectives

1. Describe natural resources and explain their importance to human life.
 - What are natural resources?
 - How has human population changed our relationship with natural resources?
 - How does resource consumption put pressure on societies and the environment?
 - How can we learn from past civilizations?
2. Characterize the interdisciplinary nature of environmental science.
 - What are some of the disciplines drawn upon in environmental science?
 - How does "environmental science" and "environmentalism" differ?
3. Understand the scientific method and how science operates.
 - What is empirical evidence?
 - Describe the parts of the scientific method
 - How does "quantitative" and "qualitative" data differ?
 - What are paradigm shifts in science? When do they occur?
4. Diagnose and illustrate some of the pressures on the global environment.
5. Evaluate the concepts of sustainability and sustainable development.
 - Where does society face challenges environmentally and sustainably?
 - Why do solutions often need to be global and sustainable?

Some Terms to Know

science environmental science natural resources theory quantitative qualitative
ecological footprint interdisciplinary natural sciences social sciences
environmentalism ecology peer review paradigm biodiversity

To-Do List

- Read Chapter 1 (pages 3-22)
- Notebook **10pts**
 - ✓ Testing Comprehension; Seeking Solutions 1, 5; Calculating Footprints
 - ✓ Crossword (online crossword for practice)
 - ✓ Notes (2-column)
 - ✓ Easter Island Timeline
- Graphing and Spreadsheets: Hydrograph **10pts**
- Skill Lab: Percent Oxygen **10pts**
- Vocabulary Quiz **15pts (Thursday, September 24)**
- Test **20pts (Friday, September 25)**

Additional Resources:

"Lorax" by Dr. Seuss

"Tragedy of the Commons" by Garrett Hardin