

APES OBJECTIVES & VOCABULARY

On a separate document or in your iPad write out “answers” to the following objectives and vocabulary. I will collect it.

FriRel: CHAPTER 1 Objectives- STUDYING THE STATE OF OUR EARTH

KEY OBJECTIVES: The major objectives of this chapter are for students to understand what is involved in the study of environmental science, how we define sustainability, and what constitutes the scientific method.

1. Environmental Science

- Define the field of environmental science and discuss its importance.
- Identify ways in which humans have altered and continue to alter our environment.
- Distinguish between living on principal and living on interest. Analyze which of these behaviors humans are currently illustrating. Evaluate the possibility of continuing to live in our current style.

2. Environmental Indicators and Sustainability

- Identify key environmental indicators and their trends over time.
 - Define sustainability and explain how it can be measured using the ecological footprint.
 - Define *sustainable yield*. Describe the relationship between sustainable yield and environmental degradation.
 - Describe the tragedy of the commons. Summarize how most environmentalists alleviate this type of tragedy.
- Define *high-throughput economy*. Explain where you would expect to see this type of economy.
- Define *low-throughput economy*. Explain where you would expect to see this type of economy.

3. Scientific Method

- Explain scientific method and its application to the study of environmental problems.
 - Describe some of the unique challenges and limitations of environmental science.
- Summarize underlying causes of environmental problems. Describe a simple model of relationships among population, resource use, technology, environmental degradation, and pollution.
- Discuss the three factors that determine the severity of harm in relation to pollutants.
- Describe synergistic interactions within a complex system.

VOCABULARY TERMS

• environment	• species	• replication
• environmental science	• speciation	• sample size
• system	• background extinction rate	• accuracy
• ecosystem	• greenhouse gases	• precision
• biotic	• anthropogenic	• uncertainty
• abiotic	• development	• inductive reasoning
• environmentalist	• sustainable development	• deductive reasoning
• environmental studies	• biophilia	• critical thinking
• ecosystem services	• ecological footprint	• theory
• environmental indicators	• scientific method	• control group
• sustainability	• hypothesis	• natural experiment
• biodiversity	• null hypothesis	• environmental justice