

Name: _____ Date: _____ Block: _____

Miller and Spoolman's Living in the Environment 16th ed.

Chapter 1 Reading Guide – Environmental Problems, Their Causes, and Sustainability

Case Study – Living in an Exponential Age

1. How does the story of the two ancient kings illustrate exponential growth?
2. What are potential problems of having the population size of Earth increase exponentially?

Section 1-1 – What Is an Environmentally Sustainable Society?

3. What is the difference between environmental science and environmentalism?
4. Define sustainability.
5. Explain the four components of sustainability.
6. What does it mean to live off of earth's natural capital? Why is this important?

Section 1-2 – How Can Environmentally Sustainable Societies Grow Economically?

7. What is environmentally sustainable economic development?

Section 1-3 – How Are Our Ecological Footprints Affecting the Earth?

8. Describe 2 examples of resources that are directly available for use and 2 examples of resources that are not directly available for use.
9. Explain the difference between a renewable resource and a perpetual resource and give an example of each.
10. Explain how clear cutting tree in the rainforest is an example of environmental degradation.
11. Define the 3 types of property.
12. Explain how over fishing of yellow fin tuna is an example of *tragedy of the commons*. What are some solutions to this problem?
13. What are some ways to extend supplies of nonrenewable resources? Give some examples of how you practice these methods in your daily life.

14. When you compare China and the United States, why do you think China's per capita ecological footprint is so much less than the United States?
15. Describe the 3 major cultural changes that have occurred in the history of humans. How does this relate the idea of sustainability?

Section 1-4 – What Is Pollution and What Can We Do about It?

16. What is the difference between point and nonpoint source pollution? Give an example of each.
17. What are the 3 effects of pollution?
18. What are the 3 problems associated with output pollution control?
19. What is the suggested alternative method to reducing pollution? Explain that method.

Section 1-5 – Why Do We Have Environmental Problems?

20. Identify the 5 major causes of environmental problems.
21. As you look at figure 1-13, which two factors do you think are most harmful? Why?
22. Describe one harmful and one beneficial effect of affluence. How does this make you feel being an American?
23. Compare and contrast the 3 environmental worldviews. Which do you agree most with and why?
24. Explain how Chattanooga, Tennessee used social capital to reform the city.

Section 1-6 – What Are Four Scientific Principles of Sustainability?

25. Describe the 4 scientific principles of sustainability. How could these 4 principles lead to a sustainability revolution?