

Name: _____ Date: _____ Block: _____

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

Chapter 14-3, 14-4, 14-5 Reading Guide – Nonrenewable Resources

Case Study – Environmental Effects of Gold Mining

1. Explain the harmful environmental effects of cyanide heap leaching as part of the mining process.

Section 14-3 – What Are Mineral Resources and What Are the Environmental Effects of Using Them?

2. Define the following terms and use them to summarize how we use a variety of nonrenewable mineral resources. What are the advantages of doing so?
 - a. Mineral resource
 - b. Ore
 - c. High-grade ore
 - d. Low-grade ore
 - e. Reserves

3. Identify and explain the two basic ways to remove mineral deposits from Earth.

4. Describe the harmful effects of mining and of removing metal from ores.

Section 14-4 – How Long Will Supplies of Nonrenewable Mineral Resources Last?

5. Why are minerals unevenly distributed throughout the earth?
6. Explain how market price, supply, and depletion time of nonrenewable minerals are related to each other.
7. Define nanotechnology and describe two examples of possible benefits in relationship to nonrenewable resources.
8. Summarize the US General Mining Law of 1872.
9. Describe two benefits and two concerns of the US General Mining Law, and one way the law has been modified and why.

Section 14-5 – How Can We Use Mineral Resources More Sustainably?

10. Identify three categorical ways to use mineral resources more sustainably, and describe an example of each.
11. Define industrial ecosystems and provide an example that helps understand the goal of the 'eco-industrial revolution.'