Unit 1: Introduction to Environmental Science - Study Guide

Presentation #1: Sustainability

Vocabulary:

1. Biodiversity -

2. Natural capital -

3. Ecosystem services -

Questions:

4. Identify the 3 factors that have allowed our planet to maintain life.. Also describe how these factors have allowed the planet to maintain life, despite drastic changes in environmental conditions.

5. What is the difference between renewable, nonrenewable, and inexhaustible resources? (*Hint: On the exam you will need to be able to identify which category a resource falls into. Ex - solar energy is inexhaustible).*

6. What are the four types of ecosystem services the environment can provide? Give an example of each.

Presentation #2: Environmental Ethics and Worldviews

Vocabulary:

7. Worldview -

Questions:

8. What are some factors that can shape our worldview on the environment?

9. What is the difference between a Human Centered Worldview and an Earth Centered Worldview?

Presentation #3: Linear Economy

Vocabulary:

10. Linear Economy -

Questions:

11. Describe how a linear economy does the following:
    a. Depletes our natural resources (renewable and nonrenewable)

    b. Causes further habitat destruction

    c. Causes air/water pollution and solid waste

    d. Causes the loss of ecosystem services we depend on

12. Knowing what a linear economy is, what do you think a circular economy would look like?

Presentation #4: Tragedy of the Commons and Hidden Costs

Vocabulary:

13. Commons -

14. Sustainable yield -

Questions:

15. Describe the concept of the “tragedy of the commons” and how it impacts our resources. Give a modern example.

16. What are hidden costs? What are examples of hidden costs of fishing? (*Hint: on the test the industry I pick may not be fishing, you need to be able to deduce what some of the possible hidden costs of any industry are.)*

Presentation #5: IPAT

Vocabulary:

17. Affluence -

18. Population -

Questions:

19. Describe the IPAT Model.

20. What are ways that human population growth has impacted environmental issues?

21. What are ways that affluence impacts environmental issues?

22. What are ways that lower affluence impacts environmental issues?

23. How does technology impact the environment?

Presentation #6: A Sustainable Future

Vocabulary:

24. Full cost pricing -

25. Subsidies -

26. Circular economy -

27. Biodegradable -

Questions:

28. Know what a sustainable society is as well as what we would have to do to become a sustainable society in terms of:

    a. Use of resources and limiting our waste/pollution
        i. Nonrenewable and renewable resources

        ii. Waste, pollution, human health, and habitat destruction

    b. The role of government and economics can play in protecting Natural Capital

        i. Be able to explain how subsidies/taxes can be used to create a more environmentally sustainable society

        ii. Explain how a Circular Economy can create a more sustainable society compared to the current linear economy in regards to the following:

        iii. Understand how supply and demand can degrade natural capital as well as how it can be used to protect natural capital.