Ecology Worksheet for Grade 10

Theme: Understanding Ecosystems and Environmental Sustainability

Name: _____
Surname: _____

Part 1: Pre-Class Study

Before completing this worksheet, please study the following resources to gain a foundational understanding of the topic:

1. **Article:** **Ecosystems and Biodiversity**
2. **Video:** **What is Ecology?**

Part 2: Worksheet Tasks

Note: *This worksheet is designed to reinforce your understanding of ecology through active engagement with the material. Ensure you complete the pre-class study to maximize your learning experience.*

Task 1: Matching

Match the terms in Column A with their correct definitions in Column B.

Column A	Column B
1. Biodiversity	A. The variety of life in a particular habitat or ecosystem.
2. Ecosystem	B. A community of living organisms and their physical environment.
3. Sustainability	C. The ability to maintain ecological balance over time.
4. Food Chain	D. A linear sequence of organisms through which nutrients and energy pass.
5. Carbon Footprint	E. The total amount of greenhouse gases produced by human activities.

Task 2: Multiple Choice (Single Correct Answer)

Chose the correct answer.

1. What is the primary source of energy for most ecosystems?
   a) Wind
   b) Sun
   c) Geothermal heat
   d) Fossil fuels

2. Which of the following is a non-renewable resource?
   a) Solar energy
   b) Wind energy
   c) Coal
   d) Biomass

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Task 3: Multiple Choice (Multiple Correct Answers)

Select all the correct answers. Which of the following are examples of biotic factors in an ecosystem?

a) Temperature b) Plants
c) Animals d) Rocks
e) Bacteria

Task 4: Fill in the Blank

Complete the sentences with the correct words.

1. The process by which plants convert sunlight into energy is called _____.
2. The gradual increase in the Earth's temperature due to greenhouse gases is known as _____.

Task 5: Choose the Correct Words

Select the correct words to complete the paragraph.

An ecosystem is a (community / population) of living organisms interacting with their (biotic / abiotic) environment. The flow of energy in an ecosystem begins with (producers / consumers), which are usually plants.

Task 6: Drag and Drop (Simulated)

Arrange the following steps of the water cycle in the correct order:

Evaporation – Condensation – Precipitation – Collection

1. _____
2. _____
3. _____
4. _____

Part 3: Reflection

Answer the following questions based on your study and the tasks above:

1. Why is biodiversity important for the health of an ecosystem?

2. How can individuals reduce their carbon footprint in daily life?

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