



## Ecology Worksheet for Grade 10

**Theme:** Understanding Ecosystems and Environmental Sustainability

Name: \_\_\_\_\_  
Surname: \_\_\_\_\_

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### 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?](#)

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### 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.

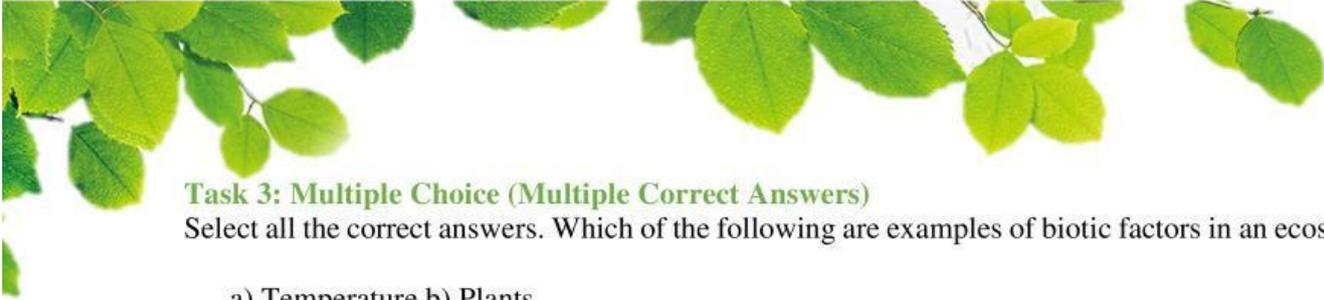
Column A	Column B
1. Biodiversity	A. The variety of life in a particular habitat or ecosystem.
2. Ecosystem	B. A community of living organisms and their physical environment.
3. Sustainability	C. The ability to maintain ecological balance over time.
4. Food Chain	D. A linear sequence of organisms through 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





### 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. \_\_\_\_\_

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### 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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