Biodiversity Guardians: Environmental Science Activity Workbook

Student Information

Please fill in your details:

Name: _____ Date: _____

Part 1: Nature Detective Investigation

As a nature detective, carefully observe your surroundings for 10 minutes and record your findings using the See-Think-Wonder strategy.

I See (Observable Facts)

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

I Think (Interpretations)

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

I Wonder (Questions)

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

Biodiversity Observation Sketches

Choose three different living things you observed and create detailed scientific drawings. Label their important features and habitat.

Living Thing 1	Living Thing 2	Living Thing 3
Labels:	*Labels:*	*Labels:*

Part 2: Ecosystem Connections

Understanding how different organisms connect and depend on each other is crucial for maintaining biodiversity.

1. Ecosystem Role Match

Draw lines to connect each organism with its primary role in the ecosystem:

Organisms:	Roles:
🐝 Bee	____ Decomposes dead matter
□ Earthworm	____ Pollinates flowers
🦅 Bird	____ Spreads seeds
🌳 Tree	____ Provides shelter

2. Food Web Construction

Draw arrows between the organisms to show who eats whom. Use different colored arrows if possible.

[Draw your food web here using these organisms:]
🌱 Grass | 🐰 Rabbit | 🦊 Fox | 🦋 Butterfly | 🌸 Flower

3. Biodiversity Quiz

Circle the best answer for each question:

1. What is biodiversity?

   a) The variety of life in an area
   b) Only the plants in an ecosystem
   c) The number of animals in a zoo
   d) The weather in different places

2. Why is biodiversity important?

a) It keeps ecosystems healthy
b) It provides food and medicine
c) It helps clean air and water
d) All of the above

Part 3: Habitat Heroes Project

Design and plan a wildlife-friendly space that supports local biodiversity.

Step 1: Site Analysis

Current Conditions:

List existing plants, animals, and features: 1. _____ 2. _____ 3. _____

Environmental Factors:

Sunlight:	□ Full □ Partial □ Shade
Water Source:	□ Natural □ Irrigation □ None
Soil Type:	□ Sandy □ Clay □ Loam

Step 2: Habitat Design

Draw your habitat design here. Include:

- Plant locations
- Water features
- Shelter areas
- Feeding stations

Part 4: Biodiversity Action Plan

Implementation Strategy

Action Item	Timeline	Resources Needed	Responsible Person

Monitoring and Evaluation

Weekly Observations

Date	Species Seen	Activity

Part 5: Research and Investigation

Local Species Investigation

Choose one native species to research:

Species Name:

_____

Habitat Requirements:

Diet:

_____

Sketch the Species:

Threats and Conservation

Identify threats to your chosen species:

1. _____
2. _____
3. _____

Propose conservation solutions:

Solution 1:

_____

How it helps:

_____

Solution 2:

_____

How it helps:

_____

Part 6: Community Engagement Project

Biodiversity Awareness Campaign

Target Audience:

Key Message:

Campaign Materials Design

Design your campaign poster here

Action Plan

Activity	Date	Location	Materials Needed

Reflection and Conclusion

Complete these final thoughts about what you've learned today:

My Biodiversity Learning Journey

1. The most interesting thing I learned today was:

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2. One way I can help protect biodiversity is:

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3. Questions I still have about biodiversity:

Activity Completion

Teacher's Signature: _____ **Date:** _____