

# Biodiversity Explorers: Student Activity Workbook

## Section 1: Getting to Know Biodiversity (20 minutes)

Welcome young explorer! Let's discover the amazing world of biodiversity together.

### Activity 1: I Spy Nature!

Look carefully at each ecosystem picture below. Use different colored pencils to:

- Circle all living things in **GREEN**
- Draw squares around habitats in **BLUE**
- Draw lines connecting animals to their homes in **RED**

Rainforest Ecosystem

[Drawing Space]

Ocean Ecosystem

[Drawing Space]

Desert Ecosystem

[Drawing Space]

Arctic Ecosystem

[Drawing Space]

## My Biodiversity Dictionary

Complete these important definitions using the word bank below:

**Word Bank:** variety of life | place where animals live | protecting nature | community of plants and animals

1. Biodiversity means \_\_\_\_\_

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2. An ecosystem is \_\_\_\_\_

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3. Conservation means \_\_\_\_\_

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4. A habitat is \_\_\_\_\_


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## Section 2: Ecosystem Explorer (30 minutes)

Time to become an ecosystem expert! Choose one ecosystem to investigate deeply.

### Choose Your Ecosystem Adventure

 Rainforest

 Ocean

 Desert

 Arctic

 Grassland

### Ecosystem Investigation Sheet

Draw and label 5 different animals that live in your chosen ecosystem:

Animal 1

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

Animal 2

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

Animal 3

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

Animal 4

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

## Habitat Detective Questions

Answer these questions about your chosen ecosystem:

### Weather Investigation:

What is the weather usually like in your ecosystem?

Temperature: \_\_\_\_\_

Rainfall: \_\_\_\_\_

Seasons: \_\_\_\_\_

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### Plant Investigation:

List 3 types of plants that grow in your ecosystem:

1. \_\_\_\_\_
  2. \_\_\_\_\_
  3. \_\_\_\_\_
- 

### Location Investigation:

Where in the world can we find your ecosystem? List 3 places:

1. \_\_\_\_\_
  2. \_\_\_\_\_
  3. \_\_\_\_\_
- 

### Special Features:

What makes your ecosystem unique? List 3 special things:

1. \_\_\_\_\_
  2. \_\_\_\_\_
  3. \_\_\_\_\_
-

## Section 3: Food Web Challenge (45 minutes)

*Let's explore how energy flows through your ecosystem!*

### Create Your Food Web

Draw your food web here. Remember to:

- Include at least 8 different organisms
- Use arrows to show energy flow
- Label producers, consumers, and decomposers
- Color-code different levels of the food chain

### Classify Your Organisms

Type	Examples from Your Web
Producers	1. _____ 2. _____
Primary Consumers	1. _____ 2. _____
Secondary Consumers	1. _____ 2. _____
Decomposers	1. _____ 2. _____

## Section 4: Adaptation Investigation (30 minutes)

*Discover how animals adapt to survive in their environment!*

### Animal Adaptation Analysis

Choose three animals from your ecosystem and explain their special adaptations:

**Animal 1:** \_\_\_\_\_

Draw your animal here

Physical Adaptations:

1. \_\_\_\_\_
2. \_\_\_\_\_

Behavioral Adaptations:

1. \_\_\_\_\_
2. \_\_\_\_\_

**Animal 2:** \_\_\_\_\_

Draw your animal here

Physical Adaptations:

1. \_\_\_\_\_
2. \_\_\_\_\_

Behavioral Adaptations:

1. \_\_\_\_\_
2. \_\_\_\_\_

## Section 5: Environmental Threats & Solutions (40 minutes)

*Investigate the challenges facing your ecosystem and propose solutions!*

### Ecosystem Threat Assessment

#### Problems

List 3 threats to your ecosystem:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

How do these threats affect:

- Animals: \_\_\_\_\_
- Plants: \_\_\_\_\_
- Water: \_\_\_\_\_
- Soil: \_\_\_\_\_

#### Solutions

Propose 3 solutions to help protect your ecosystem:

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

Who can help?

- Scientists: \_\_\_\_\_
- Government: \_\_\_\_\_
- Communities: \_\_\_\_\_
- Students: \_\_\_\_\_

## Section 6: Conservation Action Plan (35 minutes)

*Design your own conservation project to protect your ecosystem!*

### My Conservation Project

#### Project Details

Project Name: \_\_\_\_\_

Target Species/Area: \_\_\_\_\_

#### Goals (What do you want to achieve?)

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

#### Action Steps (How will you do it?)

Step	Timeline	Resources Needed
1.	_____	_____
2.	_____	_____
3.	_____	_____



## Congratulations!

*You've completed your biodiversity exploration! Let's finish with a quick reflection.*

### **My Biodiversity Journey**

**The most interesting thing I learned today was:**

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**One thing I want to learn more about is:**

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**My favorite ecosystem is:**

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 Great job, Nature Explorer! 

Remember: Every living thing plays an important role in our world's biodiversity!