

# **Exploring Local Ecosystems and Biodiversity**

## Introduction

elcome to Exp	oloring Local Ecos	systems and Biod	diversity	
			ts of local ecosystems,	the importance of
oaiversity, and n	ow human activities	impact the environ	ment.	

## **Vocabulary Building**

Match the followi	ng words with their definitions:
<ol> <li>Habitat</li> <li>Species</li> <li>Conservation</li> <li>Sustainabil</li> <li>Biodiversity</li> </ol>	on ity
Definitions:	
<ul><li>A group of</li><li>The act of p</li><li>The ability t</li></ul>	environment where an organism lives living things that share similar characteristics protecting and preserving the natural environment to maintain or support a process or system over time of different plants, animals, and microorganisms in an ecosystem
Foundation: Se	ntence Frames
Jse the following	sentence frames to help you match the words with their definitions:
Use the following	
Use the following	sentence frames to help you match the words with their definitions: e natural environment where an organism lives."
Jse the following 'The is the 'The is a g	sentence frames to help you match the words with their definitions: e natural environment where an organism lives."
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Create your own vocabulary list with 5 new words related to ecosystems and biodiversity, and then match the words with their definitions.

Extension: Create Your Own Vocabulary List



## **Ecosystem Diagram**

Draw a Diagram of a	Local Ecosystem
Draw a diagram of a loo	cal ecosystem, including the following components:
<ul><li>Plants</li><li>Animals</li><li>Water</li><li>Soil</li><li>Sunlight</li></ul>	
Use the following temp	late to help you draw your diagram:
++   Plants   ++   Animals   ++   Water   ++   Soil   ++   Sunlight	
<u> </u>	
Core: Add Two More	Components
Add two more compon	ents to your diagram, such as air and microorganisms.
Extension: Create a	3D Model
Create a 3D model of y	our ecosystem using recycled materials.

# **Biodiversity Sorting**

Sort the Animals into Their Respective Habitats
Sort the following animals into their respective habitats:
<ul> <li>Lion</li> <li>Fish</li> <li>Bird</li> <li>Insect</li> <li>Tree</li> </ul>
Habitats:
<ul> <li>Desert</li> <li>Ocean</li> <li>Forest</li> <li>Grassland</li> <li>Pond</li> </ul>
Use the following sentence frames to help you sort the animals:
"The lives in the"
Core: Research and Add Two More Animals
Research and add two more animals to the list, and then sort them into their respective habitats.
Extension: Create Your Own Sorting Game
Create your own sorting game with 10 new animals and their habitats.

#### **Conservation Efforts**

What Can We Do to Help Conserve Local Ecosystems and Biodiversity?
<ul> <li>What can we do to help conserve local ecosystems and biodiversity?</li> <li>Reduce, Reuse, Recycle</li> <li>Plant trees and flowers</li> <li>Use public transport or walk/bike</li> <li>Turn off lights and electronics when not in use</li> <li>Support local conservation organizations</li> </ul> Use the following sentence frames to help you complete the list:
"We can help conserve local ecosystems by"
Core: Research and Add Two More Conservation Efforts
Research and add two more conservation efforts to the list.
Extension: Create a Public Service Announcement
Create a public service announcement about the importance of conservation.

# **Ecosystem Services**

What Services Do Ecosystems Provide to Humans?
<ul> <li>What services do ecosystems provide to humans?</li> <li>Clean air and water</li> <li>Food and shelter</li> <li>Climate regulation</li> <li>Soil formation</li> <li>Recreation and tourism</li> </ul>
Use the following sentence frames to help you complete the list:  "Ecosystems provide us with"
Core: Research and Add Two More Ecosystem Services
Research and add two more ecosystem services to the list.
Extension: Create a Diagram
Create a diagram showing the relationships between ecosystem services and human well-being.

## **Human Impact**

How Do Human Activities Impact Local Ecosystems and Biodiversity?
<ul> <li>How do human activities impact local ecosystems and biodiversity?</li> <li>Pollution</li> <li>Deforestation</li> <li>Climate change</li> <li>Overfishing</li> <li>Habitat destruction</li> </ul>
Use the following sentence frames to help you complete the list:
"Human activities can harm ecosystems by"
Core: Research and Add Two More Human Impacts
Research and add two more human impacts to the list.
Extension: Create a Case Study
Create a case study on a specific human impact and its effects on a local ecosystem.

#### Reflection

Indigenous content these ecosystems?  Is the following sentence frames to help you reflect:  I learned that I can help by"  Core: Write a Short Essay  Vrite a short essay on what you have learned and how you can apply it in your daily life.	Reflect on What You Have Learned
Core: Write a Short Essay  Write a short essay on what you have learned and how you can apply it in your daily life.  Extension: Create a Personal Action Plan	Reflect on what you have learned about local ecosystems and biodiversity. What can you do to help conserve and protect these ecosystems?
Core: Write a Short Essay  Vrite a short essay on what you have learned and how you can apply it in your daily life.  Extension: Create a Personal Action Plan	Use the following sentence frames to help you reflect:
Vrite a short essay on what you have learned and how you can apply it in your daily life.  Extension: Create a Personal Action Plan	"I learned that I can help by"
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	Write a short essay on what you have learned and how you can apply it in your daily life.
reate a personal action plan to reduce your impact on the environment and promote conservation.	Extension: Create a Personal Action Plan
	Create a personal action plan to reduce your impact on the environment and promote conservation.

## **ELL/ESL Support**

Resources for ELL/ESL Learners
<ul> <li>For ELL/ESL learners, please use the following resources to support your learning:</li> <li>Bilingual dictionary</li> <li>Visual aids</li> <li>Sentence frames</li> <li>Peer-to-peer learning</li> </ul>

#### **Assessment**

Assess Your Understanding
Assess your understanding of local ecosystems and biodiversity by completing the following quiz:  1. What is the natural environment where an organism lives called?  a. Habitat  b. Species c. Conservation d. Sustainability  2. What is the variety of different plants, animals, and microorganisms in an ecosystem called? a. Biodiversity b. Ecosystem c. Conservation d. Sustainability  Use the following sentence frames to help you answer the questions:
"The is the natural environment where an organism lives."
"The is the variety of different plants, animals, and microorganisms in an ecosystem."
Core: Complete the Quiz and Create Your Own Questions
Complete the quiz and then create your own quiz questions.
Extension: Create a Comprehensive Assessment
Create a comprehensive assessment on local ecosystems and biodiversity.

#### Conclusion

Congratulation	s on Completing the Lesson!
	on completing our lesson on exploring local ecosystems and biodiversity! Remember that no can make a big difference in conserving and protecting our planet's precious ecosystems.
Use the following	sentence frames to help you reflect:
"I learned that	I can help by"
Core: Write a S	hort Essay
Write a short essa	ay on what you have learned and how you can apply it in your daily life.
Extension: Crea	ate a Personal Action Plan
Create a personal	action plan to reduce your impact on the environment and promote conservation.