

Ecosystem Lesson Plan

Grade 6

Objective Students will identify organisms as producers, consumers, and decomposers, define and analyze an ecosystem, and arrange these organisms into a food chain and food web.

Standards **NGSS:**
MS-LS2-1. Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem. Emphasis is on cause and effect relationships between resources and growth of individual organisms in ecosystems during periods of abundant and scarce resources.

5-LS2-1. Develop a model to describe the movement of matter among plants, animals, decomposers, and the environment. Emphasis is on the idea that matter that is not food (air, water, decomposed materials in soil) is changed by plants into matter that is food. Examples of systems could include organisms, ecosystems, and the Earth.

Suggested Resources

IXL skills

Skill Name	6 th Grade	5 th Grade
Identify Ecosystems	K.1	Q.1
Recognize Ecosystems	K.2	Q.2
How Do Plants Make Food?		M.3
Understanding Food Chains		Q.3
Movement of Matter in Food Chains	K.3	
Interpret Food Webs I	K.4	Q.5

- Videos**
- Food Chain: <https://www.turtlediary.com/video/food-chain.html>
 - Bill Nye Food Chain video: <https://www.schooltube.com/video/caa25da3b12a4e669b6d/Bill%20Nye-Food%20Web>

- Texts**
- What are Food Chains and Webs? (Science of Living Things) by Bobbie Kalman
 - Who Eats What? Food Chains and Food Webs by Patricia Lauber & Holly Keller
 - What If There Were No Bees? A Book About The Grassland Ecosystem by Suzanne Slade and Carol Schwartz

- What you'll need**
- Access to laptops, tablets, and/or desktops for students' use
 - Lake Ecosystem Picture (PDF)
 - Ecosystem Vocabulary Sheet
 - Ecosystem Activity Sheet
 - Ecosystem Graphic Organizer

ANTICIPATORY SET

1. Project the Lake Ecosystem Picture for lesson introduction. Have students discuss what they believe is shown in the picture with a partner or small group. Then, allow students the chance to share their thoughts with the entire class.
 2. Brainstorm with students the meanings of the words on the Ecosystem Vocabulary Sheet. Write their ideas on the board. To check for understanding, have students describe the producers, consumers, and decomposers they see in the picture or identify in their school environment.
 3. Draw or project the Ecosystem Vocabulary Sheet on the board. Have students give vocabulary definitions in their own words and draw an illustration for each one in the appropriate columns.
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TEACHING STRATEGY

- **Whole-group instruction:** Read the suggested text to students or provide individual or shared copies for students to read independently.
 - **Small group, differentiated instruction:** Based on students' reading levels, create small groups and assign an appropriate text to each group.
1. With particular emphasis on how ecosystems are different in various parts of the globe, students will read the non-fiction text, while making any needed adjustments to their Ecosystem Vocabulary Sheets.
 2. After reading, students will use their Ecosystem Vocabulary Sheets as a reference to complete the top portion of the Ecosystem Activity Sheet. There, they will label producers, consumers, and decomposers accordingly.

CLOSING/SUMMARY

Option #1: Students can practice the sixth grade IXL skill [K.3](#), Movement of Matter in Food Chains, with a practice goal of completing stage 1. For remediation, direct students to the fifth grade skill [Q.3](#), Understanding Food Chains. Review students' SmartScores in the Score Grid within IXL's Analytics.

Option #2: Students can complete the bottom portion of the Ecosystem Activity Sheet, creating their own food chain using five different organisms. Collect students' Ecosystem Activity Sheets and review their responses.

OPTIONAL HOMEWORK

Option #1: Using the Ecosystem Graphic Organizer, students can create their own food webs by drawing illustrations in each of the boxes and connecting the boxes with arrows.

Option #2: Students can practice the sixth grade IXL skill [K.3](#), Movement of Matter in Food Chains, with a practice goal of completing the skill. For remediation, direct students to the fifth grade skill, [Q.3](#), Understanding Food Chains, or to [M.3](#), How Do Plants Make Food? For those needing enrichment, students may practice the sixth grade IXL skill [K.4](#), Interpret Food Webs I.



Name: _____

Date: _____

Ecosystem Vocabulary

Word	Definition in Your Own Words	Illustration
Producer		
Consumer		
Decomposer		
Organism		
Herbivore		
Carnivore		
Omnivore		

Name: _____

Date: _____

Ecosystem Activity – Create a Food Chain

Three major organisms that make up a food chain are *producers*, *consumers*, and *decomposers*. Classify the organisms as producers, consumers, or decomposers.

Bilberry	
Brown Lemming	
Short-Tailed Weasel	
Arctic Fox	
Great Cormorant	
Brown Trout	
Midge Larva	
Great Horned Owl	
Common Shrew	
Slender Wheatgrass	
Western Diamondback Rattlesnake	
Bald Eagle	
Pallid-Winged Grasshopper	

Make a food chain using the following organisms: katydid, bald eagle, grass, frog, and snake.

_____ → _____ → _____ → _____ → _____

Name: _____

Date: _____

**Ecosystem Graphic Organizer
Create a Food Web**

Draw an organism from your environment in each box. Next, draw an arrow from one box to another to create a food web.

Producers	Primary Consumers	Secondary Consumers