

ELA: Grade 5, Lesson 4, Ecology

**Lesson Objective:** Students will determine producers that are around them at home

**Practice Focus:** Today we will learn about habitats, ecosystems, food chains, and food webs.

**TN Standards:** 5.RI.KID.2, 5.RI.KID.3, 5.FL.VA.VA.7a

**Teacher Materials:**

- ELA, Grade 5, Lesson 4 -Teacher Packet

**Student Materials:**

- Two pieces of paper
- Pen or pencil

Teacher Do	Student Do
<p><b><u>Opening</u></b>  <b>Hello! Welcome to Tennessee’s At Home Learning Series for literacy! Today’s lesson is for all our 5th graders out there, though all children are welcome to tune in. This lesson is the fourth in our series.</b></p> <p><b>My name is ____ and I’m a ____ grade teacher in Tennessee schools! I’m so excited to be your teacher for this lesson! Welcome to my virtual classroom!</b></p> <p><b>Today we will be learning about food chains and the members and parts of them relating to ecosystems! Before we get started, to participate fully in our lesson today, you will need:</b></p> <ul style="list-style-type: none"> <li>• Something to write with and a surface to write on</li> <li>• Two pieces of blank paper</li> </ul> <p><b>Ok, let’s begin!</b></p>	<p>Collects materials needed to engage in the lesson.</p>
<p><b><u>Intro</u></b>  <b>[Ask students the following]:</b></p> <ul style="list-style-type: none"> <li>• <b>What is a producer? [Pause] Good answer, Jacob. You are correct. A producer is an organism that makes its own energy and provides its own nutrients.</b></li> <li>• <b>What is a consumer? [Pause] Thank you, Brandi. A consumer is an animal or other living organism in a food chain that eats other living things. Sounds weird to think of eating living things, doesn’t it?</b></li> <li>• <b>Thinking of those definitions, are you a producer? [Pause] Are you a consumer? [Pause] I heard</b></li> </ul>	<p>Student interacts with teacher’s questions as posed. Student will access prior knowledge about ecology.</p>

<p>someone say humans are not producers. Correct, we are not producers because we cannot PRODUCE our own energy or nutrients. Thank you for jumping in here, Sara. I heard you say we are consumers and your rationale was that humans have to eat other living things for our energy and nutrients.</p> <p>For the next several lessons, you will be learning about food chains, food webs, consumers, producers, and decomposers. Together we will learn about ecosystems as a community of living and nonliving things interacting and living in multiple habitats, what are some habitats within those ecosystems and what types of animals are well adapted to live in these ecosystems.</p>	
<p><b>Teacher Model</b></p> <ul style="list-style-type: none"> <li>• Were your predictions about how you might be connected to an ant or a bee correct? Why or Why not? [Pause] Jamal, thank you for providing a specific response. He gave the example of plant&gt;ant&gt;fish&gt;human. This exemplifies the connection between humans and ants. I heard Ethan give this connection. Flower&gt;nectar&gt;bee&gt;bird&gt;human. From your correct responses, I can see you're able to make connections between ants or bees and humans.</li> <li>• From our text in the previous lesson, you heard that organisms in an ecosystem are interdependent. What does it mean for things to be interdependent? [Pause] Thank you for thinking critically. Yes, I heard you say they depend on each other for their survival.</li> <li>• What things might a mouse be dependent on in its ecosystem? [Pause] Thank you for listing grains and nuts. Another correct answer.</li> <li>• What animal might be dependent on mice for food? [Pause] The mouse isn't at the top of the food chain, is it? Thank you for the correct answers such as owls and other larger birds, and wild cats.</li> </ul> <p>Show image 2A-9: Caterpillar Food Chain]</p> <ul style="list-style-type: none"> <li>• How would you describe this illustration? [Pause] I'll share the correct answer from one of your classmates. It's an ecosystem in which a food chain has formed among the leaf, the caterpillar, the small bird, the large bird, and the decomposers. Excellent description.</li> <li>• What is a food chain? [Pause] Avery defined a food chain as a relationship of living things as food sources for other living things.</li> </ul>	<p>Student interacts with teacher's questions as posed. Student will access prior knowledge about ecology.</p>

<ul style="list-style-type: none"> <li>• <b>What are trophic levels?</b> [Pause] <b>That's right. You were listening carefully and correctly answered the connecting steps in a food chain.</b></li> <li>• <b>What is the smallest number of trophic levels in a food chain?</b> [Pause] <b>Thanks, Katie for answering two. There are a minimum of two connections in a food chain.</b></li> <li>• <b>What is an example of a food chain with at least three living things?</b> [Pause] <b>Ace gave an excellent example. He said grass&gt;grasshopper&gt;mouse&gt;raccoon&gt;owl. There is almost an infinite number of food chains you could have described. With three livings things, do you see how the smallest number of trophic levels is two?</b></li> <li>• <b>What are three essential parts of a food chain and what does each of these parts do?</b> [Pause] <b>Your text described the essential parts of the food chain and the function of each part. Sam answered correctly by saying producers make their own food and nutrients through photosynthesis; consumers eat other plants and animals for food and nutrients; decomposers break down dead plants and animals.</b></li> <li>• <b>Why do we say producers, consumers, and decomposers operate in a circular fashion?</b> [Pause] <b>Thank you, Ashley for explaining that first, energy is transferred from a producer to a consumer, then to another consumer, and finally back again to the soil where the decomposers break it down and help new producers grow. You could teach this!</b></li> <li>• <b>What is a food web?</b> [Pause] <b>If you said a food web is a complex, interconnected network of food chains, you are correct.</b></li> <li>• <b>How are food chains, food webs, human body systems, and road systems similar? What two words can be used to describe them?</b> [Pause] <b>The two best words used to describe similarities among similarities among these ecology terms is interconnected and networks.</b></li> <li>• <b>Algae is one example of a producer; what are two more examples?</b> [Pause] <b>It sounds like several of you gave excellent examples. I heard: moss, trees, plants, lichen, and grasses. We could list many more, couldn't we?</b></li> <li>• <b>What is an example of a consumer, and a decomposer?</b> [Pause] <b>I heard several of you give answers using examples from the text. You may have said: a mouse, boar, and wolf for consumer and</b></li> </ul>	
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<p>worms, slugs, snails, beetles, other insects, fungi, and microscopic bacteria for decomposers. Thank you for using examples from the text.</p> <ul style="list-style-type: none"> <li>• What are the three types of consumers? [Pause] Yes, I knew you would get these. Angel correctly listed the three types as herbivores, carnivores, and omnivores.</li> <li>• Compare and contrast these three types of consumers. [Pause] Thank you for answering both parts of this question. You did a great job of comparing and contrasting. Here is what I heard. Compare—living organisms, animals, need food to live, etc.; contrast—herbivores mainly eat producers, whereas carnivores and omnivores eat other consumers.</li> </ul>	
<p><b>Guided Practice</b> In the read-aloud, you heard, “On land, green plants are the main producers.”</p> <p>Say the word producers with me.</p> <p>Producers are living things that make their own energy and provide their own nutrients.</p> <p>With light and water, producers are able to make their own food in their leaves through the process of photosynthesis.</p> <p>Now I’m going to ask you to get your paper and pencil ready. We are going to write in response to these questions. Write the prompts at the top of the page, please. Don’t worry, I’ll repeat them. [Pause] Ready? [Pause]</p> <p>What are examples of producers? [Pause and repeat directions 2x] What are examples of producers? [Pause]</p> <p>Be sure to use the word producers when you tell about it in complete sentences.</p> <p>If you need help getting started, you may start your sentence like: “A producer I saw once was . . . ” [Pause]</p> <p>Thank you for thinking through those living things that make their own energy and nutrients. While I heard many correct answers and we could list many, many more, here are a few I heard: ferns, sugarcane, grass, orchids, oak trees, and lettuce. You were correct to list any or all green plants. They</p>	<p>Student interacts with teacher’s questions as posed. Student will access prior knowledge about ecology.</p>

<p>make their food by taking in sunlight and using the energy to make sugar.</p> <p>What's the word we've been talking about? [Pause]</p>	
<p><b><u>Independent Practice</u></b></p> <ul style="list-style-type: none"> <li>• [Ask students to get out their second piece of paper]. <b>After this lesson is over, I would like you to use a drawing activity for follow-up. Use your paper to write the directions for this activity, please.</b></li> <li>• <b>On your paper, you will draw producers you see around your home and yard. [Repeat directions 2x]</b></li> <li>• <b>I'll give a challenge to see how many producers you have around you. Remember, producers are eaten by consumers, mainly omnivores and herbivores.</b></li> </ul>	<p>Student interacts with teacher's questions as posed.</p>
<p><b><u>Closing</u></b></p> <ul style="list-style-type: none"> <li>• <b>I enjoyed learning about food chains, food webs, producers, and consumers with you today! Thank you for inviting me into your home. I look forward to seeing you in our next lesson in Tennessee's At Home Learning Series!</b></li> <li>• <b>Bye!</b></li> </ul>	

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