

Food Webs

Lesson 7b: Living Things Depend on One Another for Matter and Energy

Grade 5	Length of lesson: 58 minutes	Placement of lesson in unit: 7b of 7 two-part lessons on food webs
Unit central question: How do living things depend on one another to get the food (matter and energy) they need to live and grow?		Lesson focus question: How do living things in a mini-environment get the food matter and energy they need to live and grow?
Main learning goal: Living things depend on one another and their environment for the food matter and energy they need to survive.		
<p>Science content storyline: Living things in a mini-environment depend on one another to get the food matter and energy they need to live and grow. Producers (mostly plants) get food matter and energy by making their own food using light energy from the Sun and carbon dioxide and water they get from their environment. To continue making food, producers depend on decomposers to recycle matter (carbon dioxide, water, minerals). Other organisms in a food web—consumers—can’t make their own food. Therefore, all consumers depend on plants. Herbivores get their food energy and matter by eating producers directly; carnivores get matter and energy by eating other consumers that have eaten plants. Decomposers get their food matter and energy from the wastes and dead materials producers and consumers leave behind. Bacteria are a type of decomposer that leave behind tiny bits of matter (carbon dioxide, water, and minerals) that plants can use again to make more food and keep the cycle going. Because of decomposers’ recycling work, plants don’t run out of the matter they need to make food. But energy isn’t recycled, so a constant supply of new energy from the Sun is needed. All living things depend on producers (plants) because they’re the only organisms that can capture energy from the Sun and transform it into food energy that gets passed to all organisms in a food web and provides them with the matter and energy they need to survive.</p>		
<p>Ideal student response to the focus question: The crickets, fish, and bacteria in a mini-environment depend on producers to make energy-supplying food out of carbon dioxide, water, and energy from sunlight. Consumers get the food matter they need to grow and the energy they need to live and move by eating producers or other consumers that have eaten producers. Bacteria get their food matter and energy by eating wastes from the fish and the crickets and from their dead bodies. Bacteria are decomposers that leave behind tiny pieces of matter (carbon dioxide, water, and minerals) that plants can use again to make more food and keep the cycle going. All organisms in a food web ultimately depend on producers to capture light energy from the Sun and make energy-supplying food matter, and they depend on decomposers to recycle matter to keep plants making more food.</p>		

Preparation

<p>Materials Needed</p> <ul style="list-style-type: none"> • Science notebooks • <i>Bottle Biology</i> mini-environment video • Red and blue pencils or highlighters for each student • Chart paper and markers <p>Student Handouts</p> <ul style="list-style-type: none"> • 7.1 Key Ideas about Food Chains (from lesson 7a) • 7.4 Mini-environment Challenge (<i>Bottle Biology</i> diagram) (1 per student) 	<p>Ahead of Time</p> <ul style="list-style-type: none"> • Review the Food Webs Content Background Document: sections 3.5–3.12. • Review the PowerPoint slides and modify them as you wish. • View the <i>Bottle Biology</i> mini-environment video. • Decide whether to have students work individually, in pairs, in small groups, or as a class on the handout questions for the <i>Bottle Biology</i> video. • Create a chart or word wall of vocabulary words from the Food Webs unit and post it where students will be able to see it throughout the lesson. Include the words <i>food chain, food web, producers, consumers, decomposers, energy, matter, molecules, food, sunlight, carbon dioxide, water, minerals, plants, carnivores, herbivores, omnivores, produce, break down, depend(s), live, grow, wastes, energy-supplying</i>.
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Lesson 7b General Outline

Time	Phase of Lesson	How the Science Content Storyline Develops
10 min	Link to previous lesson: Students describe how organisms in a meadow food web depend on one another and their environment to get the matter and energy they need to live and grow.	<ul style="list-style-type: none"> Plants (producers) get the matter and energy they need to live and grow by making their own food out of water, carbon dioxide, and energy from the Sun. Plants depend on the environment to get the sunlight, water, and carbon dioxide they need to make their own food. Plants also depend on decomposers to recycle the water, carbon dioxide, and minerals they need to make more food and stay healthy. Herbivores are consumers that get the matter and energy they need by eating plants directly. Carnivores are consumers that get the matter and energy they need by eating herbivores. Decomposers get the matter and energy they need by eating dead plants and animals and the wastes producers and consumers leave behind. If there were no plants, consumers and decomposers couldn't get the matter and energy they need to live and grow.
1 min	Lesson focus question: The teacher introduces the focus question, <i>How do living things in a mini-environment get the food matter and energy they need to live and grow?</i>	
10 min	Setup for activity: Students observe the <i>Bottle Biology</i> mini-environment video and identify what they can and can't see in the environment.	
20 min	Activity: Students use their key-ideas handout as a resource as they work on the mini-environment challenge: <i>How does each organism in the mini-environment get the food matter and energy it needs to live and grow?</i>	<ul style="list-style-type: none"> Food provides both matter and energy that living things need to live and grow. Organisms in a food web can use food matter in four ways (1) to grow, (2) to get energy, (3) as wastes, or (4) as energy-supplying food for other organisms. Producers are the only organisms that can make energy-supplying food. To make food, they use light energy from the Sun, carbon dioxide from the air, and water from the soil. Decomposers break down dead organisms and wastes into tiny bits of matter (carbon dioxide, water, and minerals) that are released into the soil and the air. Producers (plants) can use this matter to make more food and stay healthy. So matter is recycled in food webs. Energy is <i>not</i> recycled in food chains or food webs, so a constant supply of new energy from the Sun is needed.
10 min	Follow-up to activity: The class discusses how the organisms in the mini-environment (bottle) can get the food matter and energy they need to live and grow.	
7 min	Synthesize/summarize today's lesson: The teacher guides students in summarizing the answer to the unit central question, <i>How do living things depend on one another to get the matter (food and energy) they need to live and grow?</i>	<ul style="list-style-type: none"> In a food web, producers (plants) depend on light energy from the Sun to make food; herbivores depend on plants for energy-supplying food; carnivores depend on herbivores; and omnivores and decomposers depend on both producers and other consumers. Plants also depend on decomposers to recycle the carbon dioxide, water, and minerals they need to make more food and stay healthy. So all living things depend on one another, especially producers, for the food matter and energy they need to survive.

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10 min	<p>Link to Previous Lesson</p> <p>Synopsis: Students describe how organisms in a meadow food web depend on one another and their environment to get the matter and energy they need to live and grow.</p> <p>Main science idea(s):</p> <ul style="list-style-type: none"> Plants (producers) get the matter and energy they need to live and grow by making their own food out of water, carbon dioxide, and energy from the Sun. Plants depend on the environment to get the sunlight, water, and carbon dioxide they need to make their own food. Plants also depend on decomposers to recycle the water, carbon dioxide, and minerals they need to make more food and stay healthy. Herbivores are consumers that get the matter and energy they need by eating plants. Carnivores are consumers that get the matter and energy they need by eating herbivores. 	Link science ideas to other science ideas.	<p>Show slide 1.</p> <p>In this unit, we've been talking about what happens to matter and energy as they move from organism to organism in food chains and food webs.</p> <p>Show slide 2.</p> <p>Last time we looked at this meadow food web. Today I'm going to assign you and a partner one type of organism in this food web.</p> <p>Show slide 3.</p> <p>Your job will be to answer the question on this slide: <i>How does your organism in this food web depend on other organisms and the environment to get the matter and energy it needs to live and grow?</i></p> <p>Include these words in your answer:</p> <ul style="list-style-type: none"> Depend (For example, the mouse <i>depends</i> on the grass.) Matter Energy Environment (optional) <p>Give as many details as you can and be ready to share your ideas with the class.</p> <p>NOTE TO TEACHER: <i>Have students copy the question and word list from slide 3 into their notebooks. Then display slide 2 again while students are working on their answers.</i></p>		

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	<ul style="list-style-type: none"> Decomposers get the matter and energy they need by eating dead plants and animals and the wastes producers and consumers leave behind. If there were no plants, consumers and decomposers couldn't get the matter and energy they need to live and grow. 	Ask questions to challenge student thinking.	<p>NOTE TO TEACHER: <i>This will be a Turn and Talk activity. Assign each of the following organisms to one quarter of the pairs:</i></p> <p><i>Group 1: Berry bush</i> <i>Group 2: Small bird</i> <i>Group 3: Hawk</i> <i>Group 4: Bacteria/decomposers</i></p> <p>Turn and Talk (1–2 min).</p> <p>NOTE TO TEACHER: <i>As pairs are working, listen in and ask probe and challenge questions as needed.</i></p> <p>Whole-class share-out: Let's start with pairs who talked about the berry bush. How does the bush depend on other organisms to get the matter and energy it needs to live and grow? You might use a sentence starter like "The berry bush depends on"</p> <p>NOTE TO TEACHER: <i>Make sure these science ideas surface during the discussion:</i></p>	<p>The berry bush depends on carbon dioxide, water, and sunlight from the environment to make its own food.</p>	<p><i>Questions to ask during pairs work:</i></p> <p>Say more about what you're thinking. <i>[Probe]</i></p> <p>Can you use the words <i>depends</i>, <i>matter</i>, and <i>energy</i> in your answer? <i>[Challenge]</i></p> <p>How do plants get what they need to make food? <i>[Challenge]</i></p> <p>Can you add <i>matter</i> or</p>

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			<ul style="list-style-type: none"> • <i>Producers (plants) get the matter and energy they need to live and grow by making their own food using energy from the Sun, water, and carbon dioxide.</i> • <i>Plants depend on the environment to get the sunlight, water, and carbon dioxide they need to make food.</i> • <i>Plants also depend on decomposers to recycle matter (water, carbon dioxide, and minerals) so they can make more food and stay healthy.</i> <p>Now let's hear from the pairs who talked about the small bird. How does the bird depend on other organisms to get the matter and energy it needs to live and grow? Try to use the words <i>depend</i>, <i>matter</i>, and <i>energy</i> in your descriptions. Use a sentence starter like</p>	<p>The Sun is energy, and the water and carbon dioxide are food.</p> <p>We disagree. The water and carbon dioxide aren't food, but they are matter.</p> <p>The bush makes food that has energy in it.</p> <p>No, because the bush can make its own food.</p> <p>I disagree. Plants depend on decomposers because decomposers leave behind little bits of matter that the bush can use to make more food.</p>	<p><i>energy to your description?</i> [Challenge]</p> <p>Do other groups have anything to add?</p> <p>Does the bush depend on other organisms in the food web? [Challenge]</p> <p>Does anyone want to agree, disagree, or add on?</p>

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			<p>“The small bird depends on”</p> <p>NOTE TO TEACHER: <i>Make sure these science ideas surface during the discussion:</i></p> <ul style="list-style-type: none"> • <i>Consumers that are herbivores get the matter and energy they need by eating the plants.</i> • <i>The plants made the food that the bird is eating.</i> <p>Okay, now let’s hear about the hawk. Use the sentence starter, “The hawk depends on”</p> <p>NOTE TO TEACHER: <i>Make sure the following ideas surface during the discussion:</i></p> <ul style="list-style-type: none"> • <i>Carnivores are consumers that get the matter and energy they need by eating animals that have eaten plants (herbivores).</i> • <i>They depend on both the animals they eat and the plants that made the food those animals ate.</i> • <i>If there were no plants, consumers and decomposers couldn’t get the matter and energy they need to live and grow.</i> 	<p>We can use all the words! The bird <i>depends</i> on the plants to make food, which gives the bird <i>matter</i> and <i>energy</i> to live and grow. And the bird finds the plants in its <i>environment</i>.</p> <p>The hawk depends on the small bird to get its food.</p> <p>By eating the bird, the hawk gets the matter and energy it needs.</p> <p>The hawk depends on the small bird and the berry bush. It eats the small bird, but the bird got its food from the berry bush. So the hawk needs the berry bush to provide food for the bird to live so</p>	<p>Do other pairs agree or disagree? Anything to add on or ask?</p> <p>Can you add the words <i>matter</i> or <i>energy</i> to your description?</p> <p>Does anyone have anything to add? Is there anything you agree or disagree with?</p>

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			<p>And finally, let's hear about decomposers.</p> <p>NOTE TO TEACHER: <i>Make sure the following ideas surface during this discussion:</i></p> <ul style="list-style-type: none"> <i>If there were no plants or animals, decomposers couldn't get the matter and energy they need to live and grow, and they wouldn't have anything to recycle so that plants could make more food.</i> 	<p>the hawk can eat the bird!</p> <p>Yes! The hawk gets its food matter and energy from the bird.</p> <p>We can add something about the environment. We agree with the first group that the hawk needs both the small bird and the berry bush in its environment.</p> <p>The hawk also needs the Sun, or the berry bush wouldn't be able to make food for the bird to eat and live so the hawk could eat the bird.</p> <p>Decomposers depend on other organisms to poop and die. They eat poop and dead organisms to get the matter and energy they need to live and grow</p>	

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1 min	<p>Lesson Focus Question</p> <p>Synopsis: The teacher introduces the focus question, <i>How do living things in a mini-environment get the food matter and energy they need to live and grow?</i></p>	<p>Set the purpose with a <u>focus question</u> or goal statement.</p>	<p>So we've learned a lot about how organisms use matter and energy in food chains and food webs.</p> <p>Show slide 4.</p> <p>Today we're going to think about everything we've learned and apply it to what happens in another kind of environment.</p> <p>Our focus question is <i>How do living things in a mini-environment get the food matter and energy they need to live and grow?</i></p> <p>Write this question in your science notebooks and draw a box around it.</p>		
10 min	<p>Setup for Activity</p> <p>Synopsis: Students observe the <i>Bottle Biology</i> mini-environment video and identify what they can and can't see in the environment.</p>	<p>Make explicit links between science ideas and activities before the activity.</p> <p>Highlight key science ideas and focus question throughout.</p>	<p>Our activity today will focus on what's happening in a mini-environment and how living things in this environment depend on other organisms to get the matter and energy they need to live and grow.</p> <p>To successfully complete this challenge, you'll need to use all the ideas we've been studying about matter and energy in food chains. Keep your key-ideas handout from last time in front of you as a helpful resource. You can also use the information you've written in your science notebooks.</p> <p>Show slide 5.</p> <p>Before we begin the challenge, let's watch a video of a mini-environment.</p> <p>Show the <i>Bottle Biology</i> video.</p> <p>NOTE TO TEACHER: <i>Distribute handout</i></p>		

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			<p><i>7.4, Mini-environment Challenge.</i></p> <p>Show slide 6.</p> <p>In a moment, we're going to watch the video again. But first, let's read the questions on page 1 of the handout that tell us what we should be looking for.</p> <p>As you watch the video, carefully observe what's happening in the mini-environment. Then you'll answer questions 1–6 on the handout [<i>individually, in pairs or small groups, or as a class</i>].</p> <p>NOTE TO TEACHER: <i>Let students know whether you want them to work on the handout questions individually, in pairs, in small groups, or as a class.</i></p> <p><i>The purpose of this activity is to make sure that students understand the following key ideas before they tackle the mini-environment challenge:</i></p> <ol style="list-style-type: none"> <i>1. In addition to the visible organisms, the mini-environment includes decomposers, such as bacteria and fungi (mold) that can't be seen.</i> <i>2. In addition to visible, nonliving matter, the mini-environment includes carbon dioxide and oxygen in both the air and the water.</i> <i>3. The mini-environment is a closed system, so nothing can enter it except sunlight.</i> 		

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			<p>Students watch the video again and answer questions 1–6 on the handout.</p> <p>Whole-class discussion: Let’s discuss your observations and your answers to the questions on the handout.</p> <p>NOTE TO TEACHER: <i>Make sure students understand that sunlight, which is a form of energy, can enter the bottle. Ask probe and challenge questions as needed and clarify any misunderstandings students have about the system.</i></p>	<p><i>Anticipated student misunderstandings:</i></p> <ul style="list-style-type: none"> • The carbon dioxide and oxygen are in the air. • The top plant (in the soil) can’t get water unless we add it. • Maybe bacteria are so tiny, they can get in and out of the bottle even if the cap is on tight. Maybe there are microscopic holes in the bottle that the bacteria can get through. • I don’t think sunlight can go through the bottle. 	<p><i>Clarifications:</i></p> <ul style="list-style-type: none"> • Carbon dioxide and oxygen are also dissolved in the water. The fish and the plants can use these dissolved gases. • The top plant gets water from the wick/string that soaks up the water and carries it up to the soil. • Bacteria are small, but they aren’t nearly as small as molecules. They can’t get through the plastic or the cap. • Do you have any evidence that sunlight can go through windows? Is the plastic bottle similar to a window?
20 min	Activity		Now we’re ready for the mini-environment challenge!		

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	<p>Synopsis: Students use their key-ideas handout as a resource as they work on the mini-environment challenge: <i>How does each organism in the mini-environment get the food matter and energy it needs to live and grow?</i></p> <p>Main science idea(s):</p> <ul style="list-style-type: none"> • Food provides both matter and energy that living things need to live and grow. • Organisms in a food web can use food matter in four ways (1) to grow, (2) to get energy, (3) as wastes, or (4) as energy-supplying food for other organisms. • Producers are the only organisms that can make energy-supplying food. To make food, they use light energy from the Sun, carbon dioxide from the air, and water from the soil. • Decomposers break down dead organisms and wastes into tiny bits of matter (carbon dioxide, water, and minerals) that are released into the soil and the air. Producers (plants) can use this 	<p>Make explicit links between science ideas and activities during the activity.</p> <p>Engage students in using and applying new science ideas in a variety of ways and contexts.</p> <p>Ask questions to probe student ideas and predictions.</p>	<p>Show slide 7.</p> <p>This bottle is a mini-environment where nothing but sunlight can enter.</p> <p>So how does each organism in this mini-environment get the food matter and energy it needs to live and grow?</p> <p>That’s our question for this activity, and your challenge is to figure it out!</p> <p>Show slide 8.</p> <p>Before we begin, let’s read the directions on page 2 of the handout. You can use your key-ideas handout to guide your thinking, and make sure to use the words <i>energy</i> and <i>matter</i> in your descriptions.</p> <p>NOTE TO TEACHER: <i>After reviewing the directions on handout 7.4, highlight other words from the posted word list that students could use to describe the food web, such as producers, consumers, and decomposers.</i></p> <p><i>Have students discuss their ideas in pairs or small groups, but they should work independently on their drawings and written observations.</i></p> <p>Student work time.</p> <p>NOTE TO TEACHER: <i>Circulate while students work on the activity and ask them probe and challenge questions. Be on the lookout for any confusion that will need to</i></p>		<p><i>As students are working, challenge them to use the science ideas from previous lessons. For example:</i></p> <ul style="list-style-type: none"> • Look at our key-ideas handout to get some new ideas.

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	<p>matter to make more food.</p> <ul style="list-style-type: none"> • So matter is recycled in food webs. • Energy is <i>not</i> recycled in food chains or food webs, so a constant supply of new energy from the Sun is needed. 	<p>Ask questions to challenge student thinking.</p>	<p><i>be addressed in the follow-up discussion. Also select two or three samples of student work to present during the discussion. Choose samples that have both strengths and weaknesses or gaps.</i></p>		<ul style="list-style-type: none"> • Can you give me more details? • How do plants do that? • Why do you have an arrow going from decomposers to plants? • Label your arrow and explain it in your written description.
10 min	<p>Follow-Up to Activity</p> <p>Synopsis: The class discusses how the organisms in the mini-environment (bottle) can get the food matter and energy they need to live and grow.</p> <p>Main science idea(s):</p> <ul style="list-style-type: none"> • Food provides both matter and energy that living things need to live and grow. • Organisms in a food web can use food matter in four ways (1) to grow, (2) to get energy, (3) as wastes, or (4) as energy-supplying food for other organisms. • Producers are the only organisms that can make energy-supplying food. To make food, they use light energy from the Sun, carbon dioxide 	<p>Make explicit links between science ideas and activities after the activity.</p> <p>Highlight key science ideas and focus question throughout.</p> <p>Engage students in communicating in scientific ways.</p>	<p>NOTE TO TEACHER: <i>The goal of the following discussion is to engage students in using science ideas accurately. Encourage students to think of ways the sample drawings and writings can be improved and give one another feedback.</i></p> <p><i>Ask students probe and challenge questions during the discussion to make their thinking more visible. When accurate ideas are expressed, highlight them in some way. For example: “OK, this is an important idea! Do you have it in your own drawing or writing?”</i></p> <p>Whole-class discussion: Let’s have two or three of you share your pictures and descriptions with the class.</p> <p>Show slide 9.</p> <p>During these presentations, I want those listening to think of questions you might ask, things you might want to add to the picture or writing, or things you agree or</p>		

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	<p>from the air, and water from the soil.</p> <ul style="list-style-type: none"> Decomposers break down dead organisms and wastes into tiny bits of matter (carbon dioxide, water, and minerals) that are released into the soil and the air. Producers (plants) can use this matter to make more food and stay healthy. So matter is recycled in food webs. Energy is <i>not</i> recycled in food chains or food webs, so a constant supply of new energy from the Sun is needed. 		<p>disagree with. Think like scientists!</p> <p>[<i>Point to the Communicating in Scientific Ways poster</i>] Use these sentence starters when you give each other feedback:</p> <ul style="list-style-type: none"> Are you saying that ...? What do you mean when you say ...? I agree with _____ because ... I disagree with _____ because ... I want to add to what _____ said. <p>NOTE TO TEACHER: <i>Encourage students to use these sentence starters to help their classmates improve their drawings and writing. During the discussion, ask students probe and challenge questions to clarify their thinking.</i></p> <p><i>Direct students to make changes to their own drawings and writing during the presentations, or allow time for this afterward.</i></p>		
7 min	<p>Synthesize/Summarize Today's Lesson</p> <p>Synopsis: The teacher guides students in summarizing the answer to the central unit question, <i>How do living things depend on one another to get the matter (food and energy) they need to live and grow?</i></p> <p>Main science idea(s):</p> <ul style="list-style-type: none"> In a food web, producers 	<p>Link science ideas to other science ideas.</p> <p>Engage students in making connections by synthesizing and summarizing key science ideas.</p>	<p>Show slide 10.</p> <p>To wrap up our unit on food webs, let's revisit our unit central question from lesson 1: <i>How do living things depend on one another to get the food (matter and energy) they need to live and grow?</i></p> <p>Turn and Talk: Without looking at your key-ideas handout, work with a partner to come up with one important idea that tells us how consumers depend on other organisms to get the food matter and energy they need. You can refer to the word-bank chart for</p>		

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	<p>(plants) depend on light energy from the Sun to make food; herbivores depend on plants for energy-supplying food; carnivores depend on herbivores; and omnivores and decomposers depend on both producers and other consumers. Plants also depend on decomposers to recycle the carbon dioxide, water, and minerals they need to make more food and stay healthy. So all living things depend on one another, especially producers, for the food matter and energy they need to survive.</p>		<p>ideas of words you might use.</p> <p>Whole-class share-out: So what important idea did you come up with for how consumers depend on other organisms to get the matter and energy they need?</p> <p>Turn and Talk: Now talk with your partner about one important idea that tells us how decomposers depend on other organisms to get the food matter and energy they need.</p> <p>Whole-class share-out: What key idea did you come up with for how decomposers depend on other organisms to get the matter and energy they need?</p>	<p>Herbivores depend on plants, and carnivores depend on herbivores.</p> <p>I want to add on that carnivores also depend on plants because without plants there would be no herbivores for them to eat.</p> <p>Decomposers depend on animals to poop and die.</p> <p>I agree, but they also depend on plants</p>	<p>What do herbivores depend on from plants? Why do carnivores depend on herbivores?</p> <p>Anyone want to add on or disagree?</p> <p>Anyone want to add on, agree, or disagree?</p>

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			<p>Turn and Talk: Finally, work with your partner to come up with one important idea about how producers depend on other organisms to get the food matter and energy they need.</p> <p>Whole-class share-out: Give me one important idea for how producers or plants depend on other organisms to get the matter and energy they need.</p> <p>Show slides 11–14.</p>	<p>because they can eat dead plants too.</p> <p>Decomposers get the matter and energy they need to live from eating dead organism and wastes.</p> <p>Plants don't depend on other organisms to get food matter and energy, because they make their own food using sunlight, carbon dioxide, and water that they get from the environment.</p> <p>I disagree. They depend on decomposers to recycle the stuff they need to make their food.</p>	<p>Who can add the words <i>matter</i> and <i>energy</i>?</p> <p>Anyone want to add on or disagree?</p> <p>Say more about what you mean by “stuff.”</p>

Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
		Summarize key science ideas.	<p>NOTE TO TEACHER: Use these slide images to highlight the following key ideas:</p> <ul style="list-style-type: none"> • All living things depend on other living things to get the food matter and energy they need to live and grow. • Consumers depend on plants to make food matter and energy out of carbon dioxide, water, and sunlight. • Decomposers depend on producers and consumers because they get their matter and energy by eating dead organisms and the wastes producers and consumers leave behind. • Producers (plants) depend on decomposers to recycle matter so they can make more food. • Without decomposers, plants wouldn't have enough matter to make food. • Without light energy from the Sun, plants wouldn't have the energy they need to make food that keeps the whole food web going. • Without plants, none of the other organisms could get the matter and energy they need to live and grow. <p>Show slide 15 (images only).</p> <p>The pictures on this slide remind us of three key ideas about food webs. What do you think those key ideas are?</p> <p>Let's look and see!</p> <p>Show the rest of slide 15.</p>		