

Plants and Animals

Lesson 1a: Living Things in Our Terrarium

Grade: Kindergarten	Length of lesson: 39–42 minutes (with optional math connection)	Placement of lesson in unit: 1a of 6 lessons on plants and animals
Unit central question: Do plants and animals need the same things to live and grow? Explain your thinking.		Lesson focus question: What living things are in our terrarium?
Main learning goal: Plants and animals are both living things in our terrarium.		
Science content storyline: In our terrarium, there are living and nonliving things. Living things can grow and change. The praying mantis, the ladybugs, the earthworms, and the plants are all living things. The rock, water, stick and soil are nonliving things. In our next science lesson, we'll investigate ways to group living things.		
Ideal student response to the focus question: The living things in our terrarium are the praying mantis, the worms, the ladybugs, and the plants. They're living things because they can grow and change. The nonliving things are the rock, the water, the stick, and the soil. They can't grow.		

Preparation

Materials Needed

- Science notebooks
- Chart paper and markers
- Terrarium (1 for class) (See supply list and assembly instructions in handout 1.1, Terrarium Instructions and Mantis Care)
- Magnifying lenses (1 per student)
- Tape (to secure laminated photos on the tree map).

Student Handouts and Teacher Masters

- 1.1 Terrarium Instructions and Mantis Care (Teacher Master)
- 1.2 Terrarium (Teacher Master), 8.5 × 11" laminated photo
- 1.3 Terrarium Picture Cards, 5.5 × 4.25" laminated cards (1 set per pair; 1 set for teacher)

Ahead of Time

- Review the Plants and Animals Content Background Document and Common Student Ideas about Plants and Animals.
- Prepare and laminate one set of terrarium picture cards (handout 1.3) for each pair of students and one set for you.
- On chart paper, create a circle map and label the center circle “What We See in Our Terrarium.” Then create a tree map titled “Things in Our Terrarium,” with two branches labeled “Living Things” and “Nonliving Things.”
- Review the terrarium-assembly instructions and feeding requirements on handout 1.1 (Terrarium Instructions and Mantis Care). Time your feeding to coincide with the lesson so that students can observe the mantis eating. Wait until just before lesson time to drop the worms and/or insects into the terrarium; otherwise, the worms may burrow into the soil, and the praying mantis may the ladybugs before students can observe them.
- **ELL support:** Meet with ELL students in advance and introduce them to the lesson content, structure, materials, and activities so they know what's expected and can participate more fully. Discuss what a terrarium is and how it will be used in the unit. Then give students time to gently touch and observe it. Identify vocabulary terms in the lesson plan to review with students in advance, including *living*, *nonliving*, *plants*, *animals*, *live/stay alive*, *grow*, and *investigate*. Keep in mind that many understandings of what is living and nonliving vary among ethnic communities. For example, people in indigenous communities may view rocks, the Sun, and water as living things. Since some students may find the distinction between living and nonliving things confusing, it may help to explain that scientists divide things on Earth into two groups: things that are alive, and things that aren't alive. Emphasize that in this unit, students will learn how scientists think about these two groups.

Lesson 1a General Outline

Time	Phase of Lesson	How the Science Content Storyline Develops
1 min	Introduction and unit central question: The teacher introduces the unit central question, <i>Do plants and animals need the same things to live and grow? Explain your thinking.</i>	
2 min	Lesson focus question: The teacher introduces the focus question, <i>What living things are in our terrarium?</i> and the word <i>terrarium</i> .	
5 min	Setup for activity 1: The teacher sets up an activity in which students describe what they observe in a class terrarium.	<ul style="list-style-type: none"> • A terrarium is a model of an environment filled with plants and animals that live on land. <i>Terra</i> means “land” in Latin.
5 min	Activity 1: Students observe the class terrarium and try to identify as many different objects as possible.	
5 min	Follow-up to activity 1: Students describe the objects they observed in the terrarium, and the teacher lists them on a circle map.	<ul style="list-style-type: none"> • Our terrarium contains plants, a praying mantis, ladybugs, dirt, worms, a stick, a rock, and a small dish of water.
5 min	Setup for activity 2: The teacher asks students to describe the characteristics of living things and then sets up an activity in which students categorize objects in the terrarium as living or nonliving.	<ul style="list-style-type: none"> • Scientists often sort objects in an environment into categories or groups of living and nonliving things. Living things can grow and change. They can also reproduce. Nonliving things can’t do these things.
5 min	Activity 2: Students work in pairs to sort the objects they observed in the terrarium into groups of living or nonliving things.	
5–8 min	Follow-up to activity 2: The teacher works with students to create a tree map showing which objects in the terrarium belong in the living and nonliving groups. The teacher guides the class toward a consensus and revises the tree map.	
5 min	Synthesize/summarize today’s lesson: The teacher reviews the focus question, <i>What living things are in our terrarium?</i> Then students share their ideas with a partner and write down the name of one living thing and one nonliving thing they observed in the terrarium.	<ul style="list-style-type: none"> • In our terrarium, we have five living things: two kinds of plants and three kinds of animals (the praying mantis, the ladybugs, and the worms). We also have four nonliving things: the dirt, the rock, the stick, and water.
1 min	Link to next lesson: The teacher links science ideas to the next lesson.	

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1 min	<p>Introduction and Unit Central Question</p> <p>Synopsis: The teacher introduces the unit central question, <i>Do plants and animals need the same things to live and grow? Explain your thinking.</i></p>		<p>Show slides 1 and 2.</p> <p>Today we’re starting a new unit about plants and animals. In this unit, we’re going to explore what living things need to live and grow.</p> <p>We’ll also think about a big question: <i>Do plants and animals need the same things to live and grow? Explain your thinking.</i></p> <p>NOTE TO TEACHER: Write the question on the board for students to refer to throughout the unit and draw a double-lined box around it. Have students read the question with you as you point to each word.</p> <p>In each lesson, you’ll learn things that will help you answer this question. And by the end of our unit, you’ll be able to use all of these ideas to explain whether you think plants and animals need the same things to live and grow.</p>		
2 min	<p>Lesson Focus Question</p> <p>Synopsis: The teacher introduces the focus question, <i>What living things are in our terrarium?</i> and the word <i>terrarium</i>.</p>		<p>In addition to our big question for this unit, each lesson will have a special question for us to answer. This question is called a <i>focus question</i>.</p> <p>In each lesson, our focus question will help us think about our big question, <i>Do plants and animals need the same things to live and grow?</i></p>		

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		<p>Set the purpose with a <u>focus question</u> or goal statement.</p> <p>Select content representations and models matched to the learning goal and engage students in their use.</p> <p>Ask questions to elicit student ideas and predictions.</p>	<p>Show slide 3.</p> <p>Today’s focus question is <i>What living things are in our terrarium?</i></p> <p>NOTE TO TEACHER: <i>Write the focus question on the board for students to refer to throughout the lesson and draw a box around it. As you read the question aloud, point to each word. Make sure that students understand what living things are. They should already have explored the difference between living and nonliving things before this lesson.</i></p> <p>Who knows what a terrarium is? What does it look like?</p> <p>NOTE TO TEACHER: <i>Hold up the class terrarium so everyone can see it.</i></p> <p>Let’s think about something that has a similar name.</p> <p>Who can tell me what an aquarium is?</p> <p>Yes, an aquarium is a place where fish live, so it’s filled with water. <i>Aqua</i> means “water” in Latin, and it’s like the Spanish word <i>agua</i>.</p>	<p>It looks like a box with a garden in it.</p> <p>It’s a container for fish to live in.</p>	

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			<p>A terrarium is like an aquarium, but it’s filled with plants and animals that live on land. <i>Terra</i> means “land” in Latin, and it’s like the Spanish word <i>tierra</i>.</p> <p>ELL support: ELL students may have a difficult time understanding what a terrarium is.</p> <p>NOTE TO TEACHER: <i>Explain that a terrarium is a model that represents or stands for something in the real world. It may be beneficial to elicit students’ ideas about how the terrarium is like and not like the real world outside. Ask students to name some of the similarities and differences they notice between the terrarium and the outdoors, and what it might be like to live in each place.</i></p>		
5 min	<p>Setup for Activity 1</p> <p>Synopsis: The teacher sets up an activity in which students describe what they observe in a class terrarium.</p> <p>Main science idea(s):</p> <ul style="list-style-type: none"> A terrarium is a model of an environment filled with plants and animals that live on land. <i>Terra</i> means “land” in Latin. 	Make explicit links between science ideas and activities before the activity.	<p>Show slide 4.</p> <p>Today we’re going to look at all of the things inside our terrarium and describe what we see. As you share your observations, I’ll record them on this circle map.</p> <p>NOTE TO TEACHER: <i>Point to the circle map you created on chart paper. The center circle should be labeled “What We See in Our Terrarium.”</i></p> <p>In a minute, I’ll have you gather around our</p>		

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			<p>terrarium and see how many different things or objects you can find in there. You'll need to be good observers and look very carefully. I'll give each of you a magnifying lens to help you look more closely at different things in the terrarium. You'll have a few minutes for this activity, so observe as much as you can. Then we'll fill in this circle map. We want to write down everything we see in the terrarium.</p> <p>Show slide 5.</p> <p>First, let's go over a few rules for working with our terrarium:</p> <ul style="list-style-type: none"> • Do not open the terrarium or pick it up. • Do not shake the terrarium. • Do not tap on the terrarium. <p>Raise your hand if you know what you're supposed to do. Who can tell me <i>why</i> we want to look at the terrarium? What will this help us figure out?</p> <p>NOTE TO TEACHER: <i>Call on a few students to make sure they know why they're looking at the terrarium. Emphasize that looking at the terrarium will help them find living things so they can answer today's focus question. Terrariums can also help them understand what</i></p>		

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			<p><i>happens in the real world.</i></p> <p>Now I'd like everyone to gather around the terrarium. Make sure you can see clearly what's inside.</p> <p>NOTE TO TEACHER: <i>You may want to have small groups of students take turns gathering around the terrarium so they can observe different parts of the terrarium and see all of the living and nonliving things inside.</i></p>		
5 min	<p>Activity 1</p> <p>Synopsis: Students observe the class terrarium and try to identify as many different objects as possible.</p> <p>Main science idea(s):</p> <ul style="list-style-type: none"> A terrarium is a model of an environment filled with plants and animals that live on land. <i>Terra</i> means "land" in Latin. 	<p>Ask questions to elicit student ideas and predictions.</p> <p>Ask questions to probe student ideas and predictions.</p>	<p>NOTE TO TEACHER: <i>Give each student a magnifying lens to use for observing the terrarium. Show students how to use the magnifier to see zoom in on different parts of the terrarium.</i></p> <p><i>As students observe the terrarium, remind them not to pick it up, open it, shake it, or tap it. Also remind them to look for as many different things in the terrarium as they can. Ask elicit and probe questions during the activity.</i></p> <p>What do you see in our terrarium?</p>	<p>Dirt.</p> <p>On the bottom of the terrarium.</p>	<p>Where do you see the dirt?</p>

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			<p>What else do you see inside the terrarium?</p> <p>What else you can see?</p> <p>NOTE TO TEACHER: <i>Continue asking students to identify and describe each of the living and nonliving things in the terrarium. Ideally, they should identify the plants, the praying mantis, dirt, a rock, a stick, a small dish of water, and possibly some ladybugs (if the mantis hasn't eaten them).</i></p>	<p>There's a big bug inside!</p> <p>I think it's a praying mantis.</p> <p>There are earthworms.</p> <p>They're down in the dirt.</p> <p>I see ladybugs sitting on the plants.</p> <p>There's a stick on the dirt.</p> <p>I see a rock.</p> <p>There's water in a dish.</p>	<p>Can you tell me more about the bug?</p> <p>That's right! It's a praying mantis.</p> <p>Where do you see the earthworms?</p>
5 min	<p>Follow-Up to Activity 1</p> <p>Synopsis: Students describe the objects they observed in the terrarium,</p>	Ask questions to	<p>Let's hear some of your observations. What objects did you see in the terrarium?</p> <p>NOTE TO TEACHER: <i>When students mention a specific object, hold up the corresponding</i></p>	I saw the praying mantis drinking from the water dish.	What made you

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	<p>and the teacher lists them on a circle map.</p> <p>Main science idea(s):</p> <ul style="list-style-type: none"> • Our terrarium contains plants, a praying mantis, ladybugs, dirt, worms, a stick, a rock, and a small dish of water. 	<p>elicit student ideas and predictions.</p> <p>Ask questions to probe student ideas and predictions.</p>	<p><i>photo from handout 1.3 (Terrarium Picture Cards) to make sure this is the object they're talking about. Ask elicit and probe questions to make student thinking visible. Then write the name of the object on the circle map and make a rough sketch of it. Continue asking students to describe what they observed until all of the objects are listed on the circle map.</i></p> <p>You were very careful observers! Let's put this on our circle map.</p>	<p>It had its head down in the water.</p> <p>I saw ladybugs on a plant.</p> <p>They were walking around.</p> <p>There are two different kinds of plants.</p> <p>One plant has long, skinny leaves, and one has heart-shaped leaves.</p>	<p>think the mantis was drinking?</p> <p>What else did you see?</p> <p>What were the ladybugs doing?</p> <p>What else did you observe?</p> <p>How do you know there are two different kinds of plants? What is different about them?</p> <p>How do you know they're plants?</p>
5 min	Setup for Activity 2		Show slide 6.		

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	<p>Synopsis: Students describe the characteristics of living things and then sets up an activity in which students categorize objects in the terrarium as living or nonliving.</p> <p>Main science idea(s):</p> <ul style="list-style-type: none"> Scientists often sort objects in an environment into categories or groups of living and nonliving things. Living things can grow and change. They can also reproduce. Nonliving things can't do these things. 	<p>Highlight key science ideas and focus question throughout.</p> <p>Make explicit links between science ideas and activities before the activity.</p> <p>Ask questions to elicit student ideas and predictions.</p> <p>Ask questions to probe student ideas and predictions.</p> <p>Ask questions to challenge student thinking.</p> <p>Engage students in communicating in scientific ways.</p>	<p>Scientists often sort things into groups of living things and nonliving things. How do we know when something is alive? What can living things do that nonliving things can't do?</p> <p>Share your ideas using the sentence starter "Living things can"</p> <p>ELL support: You may want to start the discussion by saying that scientists think of children as living things. Then ask students to name some of the things they do that might make scientists think they're alive. Write down their ideas and use them as a springboard for coming up with ideas about living things in general.</p> <p>NOTE TO TEACHER: <i>It's common for students to focus exclusively on animals when they think about living things. Notice whether your students are thinking about plants as well as animals, but don't try to correct them at this point. The following activity will challenge them to consider whether plants are living things.</i></p> <p><i>During this discussion, encourage students to agree or disagree, add on, or ask questions. Review the guidelines for communicating in scientific ways and make sure the CSW poster is displayed where students can refer to it as needed.</i></p>	<p>Living things can move.</p> <p>They can walk.</p> <p>Some living things move by swimming, not walking.</p> <p>A tree can't walk.</p> <p>It bends when the wind blows.</p> <p>Living things can grow.</p> <p>A kitten can grow.</p> <p>Living things can</p>	<p>Say more about what you mean by "move."</p> <p>Does anyone agree or disagree?</p> <p>Any other ideas?</p> <p>Does it move?</p> <p>Can you give an example of a living thing that grows?</p>

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			<p>CONTENT NOTE: <i>For this lesson, an acceptable definition of a living thing is something that can grow (by using food) and change over time. A bonus for students is understanding that living things can reproduce (see the optional comment below). Other characteristics of living things are listed on the first two pages of the content background document. It's OK if students say that living things can move in some way, or that they use food. They should not, however, base their definitions of living things on having certain body parts (like mouths or legs).</i></p> <p>Optional comment: I didn't hear anyone mention another important thing about living things. All living things can have babies. They can make baby plants and animals.</p> <p>NOTE TO TEACHER: <i>The optional comment</i></p>	<p>die.</p> <p>If a dog gets run over, it can die. It can't move or do anything anymore.</p> <p>Living things have legs.</p> <p>Yes. Birds have legs, people have legs, cats and dogs have legs.</p> <p>Fish!</p> <p>Whales.</p> <p>Worms.</p> <p>Trees, but they have roots.</p>	<p>Tell me more about that.</p> <p>Do all living things have legs?</p> <p>Can anyone think of a living thing that doesn't have legs?</p>

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			<p><i>is important to include if your class has considered reproduction as a feature of living things.</i></p> <p>Show slide 7.</p> <p>Next, I'm going to have you pair up with an elbow partner. Then I'll give you pictures cards of all the objects in our terrarium. You and your partner will look at each picture card and decide whether the object is living or nonliving. If you think the object is living, you'll put it in one group, and if you think the object is nonliving, you'll put it in a different group. All of the objects in our terrarium belong in either the living group or the nonliving group.</p>		
5 min	<p>Activity 2</p> <p>Synopsis: Students work in pairs to sort the objects they observed in the terrarium into groups of living or nonliving things.</p> <p>Main science idea(s):</p> <ul style="list-style-type: none"> • Scientists often sort objects in an environment into categories or groups of living and nonliving things. Living things 	Ask questions to probe student ideas and predictions.	<p>NOTE TO TEACHER: <i>Have students pair up with an elbow partner. Then give each pair a set of laminated picture cards from handout 1.3 (Terrarium Picture Cards). As pairs work together on the activity, circulate around the room and ask students probe questions to clarify the reasons for their sorting decisions. This will be especially important if you see students placing objects in the wrong groups. The stick may be difficult for students to categorize because it's nonliving but was once part of a living thing. Don't correct students at this point, since the class will work toward a consensus on the appropriate classifications following the</i></p>		<p><i>Possible probe questions to ask:</i></p> <ul style="list-style-type: none"> • Why did you decide to call [<i>the rock</i>] nonliving? • Why did you decide to call [<i>the stick</i>] a living thing?

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	<p>can grow and change. They can also reproduce. Nonliving things can't do these things.</p>		<p><i>activity.</i></p> <p>ELL support: ELL students from different ethnic backgrounds may think that water is alive. Be aware of this and help students understand the scientific distinction between living and nonliving things.</p>		
5–8 min	<p>Follow-Up to Activity 2</p> <p>Synopsis: The teacher works with students to create a tree map showing which objects in the terrarium belong in the living and nonliving groups. The teacher guides the class toward a consensus and revises the tree map.</p> <p>Main science idea(s):</p> <ul style="list-style-type: none"> • Scientists often sort objects in an environment into categories or groups of living and nonliving things. Living things can grow and change. They can also reproduce. Nonliving things can't do these 	<p>Make explicit links between science ideas and activities after the activity.</p> <p>Ask questions to elicit student ideas and predictions.</p> <p>Ask questions to probe student ideas and predictions.</p>	<p>Show slide 8.</p> <p>Next, we'll create a tree map that shows what things in our terrarium belong in the living and nonliving groups. Organizing observations like this is one of the ways that scientists talk about about their ideas.</p> <p>Let's talk about how you sorted the objects in our terrarium. Which objects did you put in the living group? Which objects did you put in the nonliving group? Why did you decide to put an object in one of these groups?</p> <p>NOTE TO TEACHER: <i>Display the tree map you created on chart paper (Things in Our Terrarium) and point out the two branches labeled "Living Things" and "Nonliving Things." During this discussion, guide students toward a consensus on which objects belong in the living and nonliving categories. The goal is to end up with an accurate tree map, but if students suggest putting an object in the wrong</i></p>		

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	things.	Engage students in communicating	<p><i>group, write down their ideas and then ask other students if they agree or disagree and why. As the class reaches a consensus, you can cross off the inaccurate grouping and say, “So as a community of scientists, we now agree that this object doesn’t belong in this category.” If students disagree about which group the plants belong to, let them build an argument that plants are alive. Most students have probably observed plants grow. If they don’t reach this conclusion, make sure to explain that plants are living things.</i></p> <p><i>When students reach a consensus on the group for each object, tape the corresponding picture of the object (from handout 1.3) on the tree map. By the end of the discussion, the tree map should ideally look like this:</i></p> <table border="1" data-bbox="863 1013 1415 1222"> <thead> <tr> <th data-bbox="863 1013 1136 1052"><i>Living Things</i></th> <th data-bbox="1136 1013 1415 1052"><i>Nonliving Things</i></th> </tr> </thead> <tbody> <tr> <td data-bbox="863 1052 1136 1091">• <i>Praying mantis</i></td> <td data-bbox="1136 1052 1415 1091">• <i>Water (and water dish)</i></td> </tr> <tr> <td data-bbox="863 1091 1136 1130">• <i>Two kinds of plants</i></td> <td data-bbox="1136 1091 1415 1130">• <i>Soil</i></td> </tr> <tr> <td data-bbox="863 1130 1136 1169">• <i>Worms</i></td> <td data-bbox="1136 1130 1415 1169">• <i>Rock</i></td> </tr> <tr> <td data-bbox="863 1169 1136 1208">• <i>Ladybugs</i></td> <td data-bbox="1136 1169 1415 1208">• <i>Stick</i></td> </tr> </tbody> </table> <p>Listen carefully to your classmates’ explanations and see whether you agree or disagree with the decisions.</p>	<i>Living Things</i>	<i>Nonliving Things</i>	• <i>Praying mantis</i>	• <i>Water (and water dish)</i>	• <i>Two kinds of plants</i>	• <i>Soil</i>	• <i>Worms</i>	• <i>Rock</i>	• <i>Ladybugs</i>	• <i>Stick</i>		
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		<p>in scientific ways.</p> <p>Engage students in constructing explanations and arguments.</p>	<p>So who can name one object you put in the group of living things?</p> <p>Why did you put this object in the living-things group?</p> <p>Any other reasons?</p> <p>What is another object in the terrarium that you put in the living group?</p>	<p>The praying mantis.</p> <p>Because the mantis can move.</p> <p>The mantis looks like it's breathing.</p> <p>We put the ladybugs in the living group.</p> <p>Because ladybugs move and crawl around.</p> <p>We said the stick is alive.</p> <p>Because it came from a tree, and a tree can grow, so the stick must be alive.</p> <p>I disagree because I</p>	<p><i>Probe questions to ask if unexpected responses arise:</i></p> <ul style="list-style-type: none"> • Tell me more about what you mean by that. • What have you seen that makes you think that? <p>What's your reason?</p> <p>Any other reasons?</p> <p>Why do you think the stick is alive?</p> <p>What do others think?</p>

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			<p>What are the nonliving things in our terrarium? Why do you think they aren't alive?</p>	<p>think a stick is a dead part of a tree.</p> <p>I don't think the stick is alive, because it can't grow. It's just going to sit there and be a stick.</p> <p>I agree, and it's not going to move either.</p> <p>We thought the stick isn't alive because plants aren't alive.</p> <p>Because they can't move, and they don't eat.</p> <p>Plants do move when they grow. Like a little seed grows up to be a tall</p>	<p>So where should we put the stick and why?</p> <p>Why do you say that plants aren't alive?</p> <p>What do others think?</p>

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				<p>plant.</p> <p>Yes.</p> <p>The soil isn't alive.</p> <p>Soil doesn't eat and grow.</p> <p>I disagree. I think soil is alive because it can move in the rain and go other places.</p> <p>But it doesn't move on its own. The rain is moving it.</p> <p>We said the rock isn't alive because</p>	<p>So do you think plants are alive?</p> <p>So as a scientific community, do we all agree that the stick is nonliving but plants are living?</p> <p>Say more about that. Why do you think the soil isn't alive?</p> <p>Does anyone agree or disagree?</p>

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				<p>rocks don't get bigger.</p> <p>We said the water isn't alive because it just sits there.</p> <p>I disagree because water moves, like, over waterfalls and stuff, and when you pour it, it moves.</p> <p>Living things grow, and I don't think water grows.</p>	<p>I like how you gave a reason for your idea.</p> <p>Does anyone want to add on or disagree?</p> <p>Does anyone disagree?</p> <p>What did we say makes something be alive? What do all living things do?</p>
			<p>Show slide 9.</p> <p>Optional math connection (5 min).</p> <p>NOTE TO TEACHER: <i>This is an opportunity to work on counting and comparing less and more. Have students count using the list on the</i></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
			<p><i>tree map. A nice supplement would be to have them count the total number of living things in the terrarium (e.g., how many ladybugs). Ask students, “Why is the number of living things in the terrarium bigger than the number of different kinds of living things listed on our chart?”</i></p> <p>ELL support: Unless ELL students have previously learned about <i>different kinds</i> of living things, helping them make this distinction may take some work.</p> <p>Look at our lists of living and nonliving things on our tree map.</p> <p>How many different kinds of living things did we find in our terrarium?</p> <p>How many different kinds of nonliving things did we find?</p> <p>Were there more living things or nonliving things in our terrarium? How do you know?</p>		
5 min	<p>Synthesize/Summarize Today’s Lesson</p> <p>Synopsis: The teacher reviews the focus question, <i>What living</i></p>	Highlight key science ideas and focus question	<p>Show slide 10.</p> <p>Let’s revisit our focus question, <i>What living things are in our terrarium?</i></p>		

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	<p><i>things are in our terrarium?</i> Then students share their ideas with a partner and write down the name of one living thing and one nonliving thing they observed in the terrarium.</p> <p>Main science idea(s):</p> <ul style="list-style-type: none"> In our terrarium, we have five living things: two kinds of plants and three kinds of animals (the praying mantis, the ladybugs, and the worms). We also have four nonliving things: the dirt, the rock, the stick, and water. 	<p>throughout.</p> <p>Engage students in making connections by synthesizing and summarizing key science ideas.</p>	<p>Turn and Talk: Talk about this question with an elbow partner and be prepared to share your answers with the class. As you work together, you may look at our circle map and tree map.</p> <p>NOTE TO TEACHER: <i>Make sure the pictures of each object have been taped to the tree map.</i></p> <p>Whole-class discussion: So what are the living things in our terrarium?</p> <p>Did you see any other living things in our terrarium?</p>	<p>The praying mantis, the worms, and the ladybugs.</p> <p>Because they can move.</p> <p>Because they can eat.</p> <p>They can grow bigger.</p> <p>Yes. The plants are living things.</p> <p>Because they can</p>	<p>Why do you think they're living things?</p> <p>What did we say all living things can do?</p> <p>Why do you think the plants are living things?</p>

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			<p>Show slide 11.</p> <p>Now look at the pictures on our tree map that show the living and nonliving things we observed in our terrarium. The name of each thing is written below its picture.</p> <p>In your science notebooks, I'd like you to write down the name of one <i>living</i> thing you saw in our terrarium and one <i>nonliving</i> thing you saw. You can look at the pictures up here on our tree map to see how to spell the words.</p> <p>ELL support: You may also want to give ELL students the option of drawing a picture as a mnemonic device and/or have them create a picture dictionary with key terms in it for easy reference.</p> <p>Whole-class share-out (if time allows): Who would like to share the living thing and nonliving thing you wrote down in your notebooks?</p> <p>NOTE TO TEACHER: <i>If students continue to have different understandings of the concepts of living and nonliving, record their questions on chart paper and refer back to them as the unit proceeds. Ask students to look for examples of one living thing and one nonliving thing at</i></p>	grow bigger.	

Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
			<i>recess or after school and be prepared to share it with the class next time. This might be a good way to begin the following lesson.</i>		
1 min	<p>Link to Next Lesson</p> <p>Synopsis: The teacher links science ideas to the next lesson.</p>	Link science ideas to other science ideas.	<p>Show slide 12.</p> <p>In our next lesson, we'll talk more about our terrarium and the living things we observed. We'll also think about this question: How can we group the living things in our terrarium?</p>		