

## The Water Cycle

### Lesson 5b: The Water Cycle

<b>Grade 5</b>	<b>Length of lesson:</b> 49 minutes	<b>Placement of lesson in unit:</b> 5b of 6 two-part lessons on the water cycle
<b>Unit central questions:</b> How does water change in the world around us? Does Earth ever run out of water?		<b>Lesson focus question:</b> How can ideas about water molecules, evaporation, and condensation help us explain the water cycle in the world around us?
<b>Main learning goal:</b> Driven by energy from the Sun, water molecules are constantly changing states and cycling from Earth to the atmosphere and back to Earth through the processes of evaporation, condensation, and precipitation. [ <b>Note:</b> Conservation and recycling of water molecules in the water cycle will be addressed in the next lesson.]		
<b>Science content storyline:</b> Water molecules are constantly changing states and cycling from Earth to the atmosphere and back to Earth through the processes of evaporation, condensation, and precipitation. Energy from the Sun drives this water cycle. Evaporation from lakes, oceans, rivers, plants, and even our skin occurs when water molecules in the liquid state gain heat energy from the Sun and move faster. Fast-moving water molecules break away from other molecules, escape the surface of the water, and spread out into the air as individual water-vapor (gas) molecules. Condensation occurs when water-vapor molecules lose heat energy (cool), slow down, and join together to form tiny droplets of liquid water (condensation). This is how clouds are formed—water-vapor molecules move high into the air, where they lose heat energy and condense onto dust particles in the atmosphere. Precipitation occurs when the liquid-water droplets that make up the clouds get heavy enough to fall to Earth as rain, hail, sleet, or snow. Each water molecule changes from one state to another over and over again.		
<b>Ideal student response to the focus question:</b> Energy from the Sun can cause water molecules on Earth—like those in lakes, rivers, the ocean, and puddles—to heat up (gain heat energy) and start moving faster and farther apart until they escape into the air as water vapor (evaporation). Some of the water-vapor molecules rise high into the atmosphere where it’s cooler, and as they slow down, they come together to form tiny drops of liquid water on pieces of dust in the air (condensation). These tiny liquid-water droplets form clouds. When the water drops in the clouds get too heavy, it rains or snows (precipitation). Each water molecule moves through the processes of evaporation, condensation, and precipitation over and over again, so water is constantly changing and moving around.		

#### Preparation

<p><b>Materials Needed</b></p> <ul style="list-style-type: none"> <li>• Science notebooks</li> <li>• Chart paper and markers</li> <li>• Overhead/Smart Board markers (two colors) to add labels and arrows to the water-cycle diagram</li> </ul> <p><b>Student Handouts and Teacher Masters</b></p> <ul style="list-style-type: none"> <li>• 5.2 The Water Cycle (1 per student)</li> <li>• 5.3 Water in the World around Us (1 per student)</li> <li>• 5.4 Water in the World around Us (Teacher Master)</li> </ul>	<p><b>Ahead of Time</b></p> <ul style="list-style-type: none"> <li>• Review the Water Cycle Content Background Document: part 2. <b>Note:</b> This lesson introduces the water cycle, but conservation and recycling within the water cycle won’t be addressed until the next lesson.</li> <li>• Review the PowerPoint slides and modify them as you wish.</li> <li>• Decide whether to have students read handout 5.2 (The Water Cycle) individually or as a class. Do you want them to use highlighters/colored pencils to mark the handout?</li> <li>• Study handout 5.4, Water in the World around Us (Teacher Master), and use it as a guide for adding labels and arrows to the water-cycle diagram (handout 5.3) during the activity.</li> </ul>
--	---

## Lesson 5b General Outline

Time	Phase of Lesson	How the Science Content Storyline Develops
1 min	<b>Link to previous lesson:</b> The teacher reminds students of the everyday situations and water-changes system they explained using ideas about molecules, evaporation, and condensation.	<ul style="list-style-type: none"> <li>Ideas about molecules, evaporation, and condensation can help us explain everyday situations and the water-changes system.</li> </ul>
1 min	<b>Lesson focus question:</b> The teacher introduces the focus question, <i>How can ideas about molecules, evaporation, and condensation help us explain the water cycle in the world around us?</i>	
3 min	<b>Setup for activity:</b> The teacher elicits student ideas about the water cycle.	
30 min	<b>Activity:</b> Students read about the water cycle and use ideas from the handout to create a diagram. Afterward, they share and discuss their diagrams.	<ul style="list-style-type: none"> <li>Water molecules in the liquid state exist in nature as bodies of water, such as lakes, oceans, and rivers. Liquid water can also exist as rain, in clouds, or on the ground.</li> <li>Water-vapor molecules exist everywhere in the air around us.</li> <li>Water molecules in the solid state exist on Earth as snow, ice, sleet, and hail.</li> <li><i>Precipitation</i> is a process in which water molecules fall to Earth from clouds as a liquid (rain) or solid (snow, sleet, or hail). When water drops in clouds get too big and heavy to float in the air, they fall to the ground.</li> <li>In our water-cycle diagram, evaporation occurs from bodies of water, the ground, and trees. Condensation causes clouds to form, and precipitation falls from the clouds to Earth as rain, snow, sleet, or hail.</li> </ul>
8 min	<b>Follow-up to activity:</b> Students work in pairs to construct a sentence that describes the water cycle in terms of water molecules and energy.	<ul style="list-style-type: none"> <li>As water molecules gain and lose heat energy, they constantly change states and cycle from Earth to the atmosphere and back to Earth through the processes of evaporation, condensation, and precipitation.</li> <li>Energy from the Sun powers this cycle.</li> </ul>
5 min	<b>Synthesize/summarize today's lesson:</b> Students help the teacher formulate summary statements.	<ul style="list-style-type: none"> <li>Energy from the Sun causes water molecules to constantly change states and cycle from Earth to the atmosphere and back to Earth through the processes of evaporation, condensation, and precipitation.</li> <li>Energy from the Sun powers the water cycle; evaporation occurs when water molecules gain heat energy, and condensation (and freezing) occurs when water molecules lose heat energy.</li> </ul>
1 min	<b>Link to next lesson:</b> The teacher summarizes today's lesson and foreshadows the focus of the next lesson.	

Time	Phase of Lesson and How the Science Content Storyline Develops	STeLLA Strategy	Teacher Talk and Questions	Anticipated Student Responses	Possible Probe/Challenge Questions
1 min	<p><b>Link to Previous Lesson</b></p> <p><b>Synopsis:</b> The teacher reminds students of the everyday situations and water-changes system they explained using ideas about molecules, evaporation, and condensation.</p> <p><b>Main science idea(s):</b></p> <ul style="list-style-type: none"> <li>Ideas about molecules, evaporation, and condensation can help us explain everyday situations and the water-changes system.</li> </ul>	Make explicit links between science ideas and activities.	<p><b>Show slides 1 and 2.</b></p> <p>In previous lessons, we used ideas about molecules, evaporation, and condensation to explain everyday situations—boiling water, water drops on the outside of a cold soda can or bottle, clouds, steam from a teakettle, and foggy mirrors. We also talked about how water molecules changed in a system we set up here in the classroom.</p> <p>Today we’re going to explore these ideas about water changes in another system—Earth!</p>		
1 min	<p><b>Lesson Focus Question</b></p> <p><b>Synopsis:</b> The teacher introduces the focus question, <i>How can ideas about molecules, evaporation, and condensation help us explain the water cycle in the world around us?</i></p>	Set the purpose with a <u>focus question</u> or goal statement.	<p><b>Show slide 3.</b></p> <p>Today’s focus question is <i>How can ideas about molecules, evaporation, and condensation help us explain the water cycle in the world around us?</i></p> <p>Write this question in your science notebooks and draw a box around it.</p> <p><b>NOTE TO TEACHER:</b> <i>Also post the focus question where students can see and refer to it throughout the lesson.</i></p>		
3 min	<p><b>Setup for Activity</b></p> <p><b>Synopsis:</b> The teacher elicits student ideas about the water cycle.</p>	<p>Make explicit links between science ideas and activities <b>before</b> the activity.</p> <p>Ask questions to elicit student ideas</p>	<p>Last time we talked about how molecules, evaporation, and condensation are involved in forming clouds. Now let’s put these ideas together with the whole water cycle on Earth.</p> <p><b>Show slide 4.</b></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
		and predictions.	<p>Before I mentioned Earth’s water cycle at the end of yesterday’s lesson, how many of you had already heard of it. For those of you who have, what did you learn about it? What do you think it is?</p> <p><b>NOTE TO TEACHER:</b> <i>Listen to students’ ideas without spending a lot of time asking probe and challenge questions. The reading that follows this discussion should challenge their thinking.</i></p> <p><b>Optional:</b> <i>You can chart students’ initial ideas and then add to or modify the chart throughout the lesson.</i></p> <p>These are good ideas! Today we’re going to find out just what the water cycle is and how it connects with the ideas we’ve been exploring about water molecules, evaporation, and condensation. After the lesson, I hope you’ll have</p>	<p>We learned in 3rd grade that it’s the cycle of water from the ocean to the clouds and back to the ocean again as rain.</p> <p>It’s like a circle.</p> <p>Like a wheel on a bicycle, it goes round and round.</p> <p>Water goes around in a circle.</p> <p>It’s like recycling. You use it over again.</p> <p>The water. It goes up to clouds, and then it comes back down again as rain.</p>	<p>What does the word <i>cycle</i> mean?</p> <p>Can you say more?</p> <p>Does that give you a hint about what the term <i>water cycle</i> might mean?</p> <p>What gets used over again?</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
			a deeper understanding of the water cycle than you had in 3rd grade!		
30 min	<p><b>Activity</b></p> <p><b>Synopsis:</b> Students read about the water cycle and use ideas from the handout to create a diagram. Afterward, they share and discuss their diagrams.</p> <p><b>Main science idea(s):</b></p> <ul style="list-style-type: none"> <li>Water molecules in the liquid state exist in nature as bodies of water, such as lakes, oceans, and rivers. Liquid water can also exist as rain, in clouds, or on the ground.</li> <li>Water-vapor molecules exist everywhere in the air around us.</li> <li>Water molecules in the solid state exist on Earth as snow, ice, sleet, and hail.</li> <li><i>Precipitation</i> is a process in which water molecules fall to Earth from clouds as a liquid (rain) or solid (snow, sleet, or hail). When water drops in clouds get too big and heavy to float in the air, they fall to the ground.</li> <li>In our water-cycle</li> </ul>	<p>Make explicit links between science ideas and activities <b>during</b> the activity.</p> <p>Highlight key science ideas and focus question throughout.</p>	<p><b>Show slide 5.</b></p> <p>Now we’re going to read a handout about the water cycle, and as we read, I want you to [<i>underline/highlight</i>] any new ideas you discover about the water cycle.</p> <p><b>NOTE TO TEACHER:</b> <i>Distribute handout 5.2, The Water Cycle. You can read the handout aloud as a class or have students read it independently. Decide whether you want students to underline or highlight new ideas in the reading.</i></p> <p><b>Student reading time.</b></p> <p><b>Whole-class discussion:</b> What new ideas about the water cycle did you find in the reading? I’m going to chart these for us to remember.</p> <p><b>NOTE TO TEACHER:</b> <i>Make sure the following ideas emerge in the discussion:</i></p> <ul style="list-style-type: none"> <li><i>The Sun provides the heat energy that makes the water on Earth move and cycle.</i></li> <li><i>The explanation for the changes we observe is that water molecules are constantly changing and moving around as they gain or lose energy.</i></li> <li><i>Water molecules don’t always move in a circle. It’s more complicated than that!</i></li> </ul> <p><b>Show slide 6.</b></p> <p><b>NOTE TO TEACHER:</b> <i>Give each student a copy of handout 5.3, Water in the World around</i></p>	<p>Water molecules don’t really go in a circle!</p> <p>The Sun provides energy for the water cycle.</p>	<p>How would you describe their movement?</p> <p>Why is the Sun’s energy needed?</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>diagram, evaporation occurs from bodies of water, the ground, and trees. Condensation causes clouds to form, and precipitation falls from the clouds to Earth as rain, snow, sleet, or hail.</p>	<p>Select content representations and models matched to the learning goal and engage students in their use.</p>	<p><i>Us. Display the water-cycle diagram on a document reader so the whole class can see as you mark it up. Quickly review the captions to make sure students know what the diagram represents: clouds, river, lake or ocean, trees, snow-capped mountains, clouds, rain, sun.</i></p> <p>To show what you know about the water cycle, I'd like you to add to the diagram on your handouts.</p> <p><b>Show slide 7.</b></p> <p>Where on this diagram would you expect to find water molecules in the liquid, gas, and solid states?</p> <p>Make these changes on your diagrams:</p> <ol style="list-style-type: none"> <li>1. Write <i>liquid</i> everywhere you would expect to find water molecules in the <b>liquid state</b>, and draw six liquid-water molecules.</li> <li>2. Write <i>water vapor</i> everywhere you would expect to find water molecules in the <b>gaseous state</b>, and draw six water-vapor molecules.</li> <li>3. Write <i>solid</i> everywhere you would expect to find water molecules in the <b>solid state</b> (snow, ice), and draw six solid-water molecules.</li> </ol> <p><b>Individual work time.</b></p> <p><b>NOTE TO TEACHER:</b> <i>As students work on their diagrams, ask questions to probe and challenge their thinking. If they're having</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>Ask questions to probe student ideas and predictions.</p> <p>Ask questions to challenge student thinking.</p>	<p><i>difficulty drawing molecules in the different states, you could display the diagram of water molecules in the three states from slide 8.</i></p> <p><b>Show slide 8 (optional).</b></p> <p> <i>Listen to students' ideas. What's visible about student thinking?</i></p> <p><b>Show slide 9.</b></p> <p><b>NOTE TO TEACHER:</b> <i>During the following discussion, mark on the overhead/Smart Board to show accurate responses. Use the teacher master (handout 5.4) as a guide and ask probe and challenge questions to make student thinking visible.</i></p> <p><b>Whole-class discussion:</b> Let's talk about what you added to your diagrams. Where did you draw and label liquid-water molecules?</p> <p><b>NOTE TO TEACHER ABOUT LIQUID WATER:</b> <i>Mark on the projected water-cycle diagram as the discussion proceeds. Students should indicate that clouds are liquid water, but they may have mislabeled them as water vapor. Clouds consist of many liquid-water molecules that are loosely connected in tiny droplets.</i></p>	<p>In the lake, the ocean, and the river.</p> <p>In the rain.</p> <p>In the ground.</p> <p>In the clouds.</p>	<p><i>Possible probe/challenge questions:</i></p> <p>Is that the only place you would expect to see liquid water?</p> <p>Tell me what these molecules are doing.</p> <p>Why do you think water molecules in the liquid state are in the clouds?</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>Where did you draw and label water-vapor molecules?</p> <p><b>NOTE TO TEACHER ABOUT WATER VAPOR:</b> <i>Water vapor is all throughout the air, so it doesn't matter where you put the label on the diagram. You can write it multiple places, but make sure to highlight the point that it's everywhere in the air. Technically, water vapor is also in clouds—in between the tiny drops of liquid water. But this detail will only confuse students, so <b>don't bring it up!</b></i></p>	<p>In the sky.</p> <p>In the clouds. [Technically accurate but could represent a misconception.]</p>	<p>Where in the sky?</p> <p>Can you talk about how the molecules of water vapor are moving in the sky?</p> <p>Why do you think water vapor is in the clouds?</p> <p>Are you saying clouds are made of water vapor?</p> <p>What do we know about water-vapor molecules?</p> <p>Think about these two things:</p> <ol style="list-style-type: none"> <li>1. Can you see water vapor?</li> <li>2. Can you see clouds?</li> </ol> <p>What does that tell us about the state of matter of the water in clouds?</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>Where did you draw and label solid-water molecules?</p> <p><b>NOTE TO TEACHER ABOUT WATER IN THE SOLID STATE:</b> <i>The water droplets that make up clouds often freeze. In fact, many times what we experience as rain on Earth actually started as frozen ice crystals in the clouds. So students are correct to say that there could be frozen water in clouds. It's also the case that liquid water can fall from clouds and turn into frozen water on the way down.</i></p> <p>So water can fall from the clouds as either a liquid (rain) or a solid (snow or ice).</p> <p>Scientists use the word <i>precipitation</i> to describe the process where water falls from the clouds down to Earth. So write the word <i>precipitation</i> in your notebooks.</p> <p><b>Show slide 10.</b></p> <p><b>Pairs:</b> Now I want you to work in pairs, adding labels and arrows to your water-cycle diagrams to show where the processes listed on the slide could be occurring on Earth (evaporation, condensation, precipitation, gaining energy, and losing energy).</p> <p>Draw arrows on your diagrams to show where each of these processes is happening. Make sure to label the arrows.</p> <p>Talk out your ideas with your partner, using what you learned in previous lessons to support your thinking. Both of you must agree on where these</p>	<p>In the snow on top of the mountains.</p> <p>The snow came from the clouds, and snow is solid water.</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>Ask question to probe student ideas and predictions.</p> <p>Ask questions to challenge student thinking.</p>	<p>processes happen before you label your diagrams.</p> <p><b>Pairs work on water-cycle diagrams.</b></p> <p><b>NOTE TO TEACHER:</b> <i>Walk around the room listening to students as they work on this activity. Focus on assessing student thinking. Ask questions to <b>probe</b> student thinking (What do you mean? Tell me about this arrow.) and <b>challenge</b> student thinking (Can you explain this arrow to me in terms of molecules? Can you explain what energy has to do with this arrow?). <b>Avoid asking questions that will lead students to the correct answer.</b></i></p> <p><i>Look for a couple of student examples to display on the document reader. Select examples that are strong but still need improvement.</i></p> <p> <b>Optional Embedded Assessment Task</b></p> <ul style="list-style-type: none"> <li>• <i>Are students using ideas about molecules to support their decisions about labeling?</i></li> <li>• <i>Are students talking about water molecules gaining or losing heat energy?</i></li> </ul> <p><b>Show slide 11.</b></p> <p><b>Whole-class discussion:</b> Where did you show these processes happening on your diagrams? Let's look at a couple examples on the document reader. I want everyone listening, watching, and giving each other feedback. Ask questions if the</p>		<p><i>Possible probe and challenge questions to ask during pairs work:</i></p> <ul style="list-style-type: none"> <li>• You haven't labeled this arrow. How will you label it? Why do you think that?</li> <li>• You wrote "condensation" here. Tell me more about your reasoning.</li> <li>• Tell me why you wrote "evaporation" here.</li> <li>• Can you explain this arrow to me in terms of molecules? In terms of energy?</li> </ul>

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>diagram isn't clear, and make suggestions for improving it.</p> <p><b>NOTE TO TEACHER:</b> <i>Allow 30 seconds think time or Turn and Talk time before discussing each of the following questions.</i></p> <p>1. Where does evaporation occur?</p> <p>Use the words <i>molecules</i> and <i>energy</i> to explain what is happening in evaporation.</p>	<p>I showed evaporation just at the surface of the water.</p> <p>Evaporation also happens in the ocean.</p> <p>And it happens in the clouds.</p> <p>I added "gaining energy" next to evaporation.</p> <p>Molecules heat up (gain energy) and start moving faster and farther apart.</p>	<p>Does this happen anywhere else?</p> <p>Say more about that. Does anyone disagree?</p> <p>Who has questions or additions? Any other feedback?</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
				change states as they go in a circle.	Tell me about how water goes in a circle.
8 min	<p><b>Follow-Up to Activity</b></p> <p><b>Synopsis:</b> Students work in pairs to construct a sentence that describes the water cycle in terms of water molecules and energy.</p> <p><b>Main science idea(s):</b></p> <ul style="list-style-type: none"> <li>As water molecules gain and lose energy, they constantly change states and cycle from Earth to the atmosphere and back to Earth through the processes of evaporation, condensation, and precipitation.</li> <li>Energy from the Sun powers this cycle.</li> </ul>	<p>Make explicit links between science ideas and activities <b>after</b> the activity.</p> <p>Ask questions to challenge student thinking.</p> <p>Engage students in communicating in scientific ways.</p>	<p><b>Show slide 12.</b></p> <p><b>Pairs:</b> Work with a partner to describe in one sentence what happens to water molecules in the water cycle. Include the idea of <b>energy</b> in your sentence and be ready to share your sentence with the class.</p> <p><b>NOTE TO TEACHER:</b> <i>Depending on how much time you have left, you can have students either write this sentence as a caption on their water-cycle diagrams or just come up with a sentence orally.</i></p> <p><b>Pairs work on sentences.</b></p> <p><b>Whole-class discussion:</b> Let's hear your sentences. Listen carefully to each other, and be ready to ask questions, agree or disagree, suggest additions or corrections.</p>	<p><i>Sample sentences:</i></p> <p>When water molecules gain heat energy, they evaporate.</p> <p>I have a question. What state of water are you talking about? Because if water molecules are in the solid state,</p>	<p>Anyone have a question, addition, or correction?</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>they won't evaporate when heat energy is added. They'll melt.</p> <p>Our sentence is "In the water cycle, energy from the Sun makes water molecules change states."</p> <p>We said water molecules keep changing from solid to liquid to gas because of energy.</p> <p>They can also go from gas to liquid.</p> <p>They can go from a gas to a liquid when the molecules lose energy.</p>	<p>Do they always change from solid to a liquid to a gas?</p> <p>Can you add the words <i>energy</i> and <i>molecules</i> to that sentence?</p>
5 min	<p><b>Synthesize/Summarize Today's Lesson</b></p> <p><b>Synopsis:</b> Students help the teacher formulate summary statements.</p>		<p><b>Show slide 13.</b></p> <p><b>NOTE TO TEACHER:</b> <i>Point to your completed water-cycle diagram as you summarize the following key ideas.</i></p> <p>Let's summarize what we've learned so far about</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
		throughout.	<p><b>precipitation</b>, water molecules are constantly changing from a liquid to a gas and back to a liquid (or a solid) as they cycle from Earth to the atmosphere and back to Earth.</p> <ol style="list-style-type: none"> <li>Changes of state happen when water molecules <b>gain</b> heat energy (evaporation) or <b>lose</b> heat energy (condensation or freezing).</li> <li>The <b>Sun</b> provides the energy that keeps water molecules changing and moving.</li> </ol>		
1 min	<p><b>Link to Next Lesson</b></p> <p><b>Synopsis:</b> The teacher summarizes today’s lesson and foreshadows the focus of the next lesson.</p>	<p>Summarize key science ideas.</p> <p>Link science ideas to other science ideas.</p>	<p><b>Show slide 15.</b></p> <p>Today we explored how water molecules in the world around us continuously change from one state to another and move from place to place on Earth and in the atmosphere. Energy from the Sun powers this water cycle.</p> <p>These ideas helped us answer our first unit central question: <i>How does water change in the world around us?</i></p> <p>Next time we’ll consider our second unit central question: <i>Does Earth ever run out of water?</i></p>		