

# WATER, WATER EVERYWHERE

## Module Overview

<b>Target Language:</b> English as a Second Language	<b>Grade Level:</b> 2
<b>Proficiency Level:</b> Junior Novice Low	
<b>Summary:</b> Students will discover that much of the Earth is made up of water. They will identify various bodies of water and name the three states of water.	
<b>Enduring Understanding:</b> There is more water than land on Earth and water can be found in different places and forms.	
<b>Essential Questions:</b> Where can we find water? What happens to water?	

Standards Targeted	
5C – World Language Standards	5E – STEM Standards
<p><b>Communication</b></p> <ul style="list-style-type: none"> <li>Students understand spoken and written language on very familiar topics in the target language that promote the learning of basic linguistic structures. (1.2A)</li> <li>Students engage in brief exchanges about personal interests. (1.3A)</li> </ul> <p><b>Connections</b></p> <ul style="list-style-type: none"> <li>Students access new information and reinforce existing knowledge of other content areas through the target language (3.1A)</li> </ul>	<p><b>2.ECS Earth’s Changing Surface</b> Students who demonstrate understanding can:</p> <p style="padding-left: 40px;">a. Obtain and communicate information that water exists in different forms within natural landscapes and determines the variety of life forms that can live there.</p> <p><b>Technology</b></p> <ol style="list-style-type: none"> <li>A.1 Use and understand how technology enhances learning</li> <li>C.1 Use and understand how technology increases productivity</li> <li>A.1 Identify and understand how technology is used for communication</li> <li>B.1 Identify and understand how technology is used to express ideas</li> </ol> <p><b>Math Common Core</b> Measurement and Data</p> <ol style="list-style-type: none"> <li>MD. 4 Organize, represents, and interprets data with up to three categories.</li> <li>MD. 2 Describe and Compare measurable attributes.</li> <li>MD. 3 Classify Objects and count the number of objects in each category.</li> <li>MD. 4 Compare categories using words</li> </ol>

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such as more or same

Knowledge: Students will know...	Skills: Students can...
<p>Vocabulary</p> <ul style="list-style-type: none"> <li>• Bodies of water</li> <li>• 3 states of water</li> <li>• Water cycle</li> </ul> <p>Expressions and patterns:</p> <ul style="list-style-type: none"> <li>• Where and what patterns</li> <li>• More or less</li> <li>• Be able to make simple statements</li> <li>• Be able to ask and answer simple questions</li> </ul>	<ol style="list-style-type: none"> <li>1. Identify and name bodies of water.</li> <li>2. Name the 3 states of water (solid, liquid and gas states)</li> <li>3. Express that there is more water than land on Earth.</li> </ol>

**Module Duration and Lessons:** Five 30-minute lessons

Lesson 1 – Where in the World is Water?

Lesson 2 – Where Does Water Go?

Lesson 3 – Is Water Always Water?

Lesson 4 – How Does Water Change?

Lesson 5 – Assessment Task

<b>Performance Assessment:</b>	What culminating performance tasks will provide evidence that students have achieved the program learning objectives? Consider providing opportunities for students to be assessed for each mode of communication through interpretive, interpersonal and presentational performance tasks. However, for students at this age group, assessment may be integrated.
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### Materials/Resources

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|---|---|
| <ul style="list-style-type: none"> <li>○ World map or globe, preferably in blue and green</li> <li>○ Puppet/mascot</li> <li>○ Plastic duck</li> <li>○ Map of Maryland (ocean, rivers are in blue and lands are in green color)</li> <li>○ Smart Board (optional)</li> <li>○ Blue and green crayons</li> <li>○ Blue and green sticky notes</li> <li>○ Computers with drawing program</li> <li>○ Paper</li> </ul> | <ul style="list-style-type: none"> <li>○ Pencils</li> <li>○ Slide show: “Little Duck is Hungry”</li> <li>○ <i>Itsy Bitsy Spider</i> songs               <ul style="list-style-type: none"> <li>➤ English: <a href="http://bit.ly/oSAGG4">http://bit.ly/oSAGG4</a></li> <li>➤ Spanish: <a href="http://bit.ly/r7u0kg">http://bit.ly/r7u0kg</a></li> <li>➤ Arabic: <a href="http://bit.ly/A2ILir">http://bit.ly/A2ILir</a></li> </ul> </li> <li>○ Worksheet 1a</li> <li>○ Worksheet 2a, 2b, 2c, 2d</li> <li>○ Worksheet 3a, 3b, 3c</li> <li>○ Worksheet 4a, 4b</li> </ul> |
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### **STEM Background for teachers: (identified and provided by a STEM teacher/resource person)**

**Water:** Almost 70% of Earth's surface is covered by water.

**Water Cycle:** The water cycle begins with heat from the sun. Land and water on Earth absorb the heat's energy. Some of that energy warms the air above the surface of the earth. When air gets cooler, water vapor in the air **condenses**. That means that it changes to tiny droplets of **liquid** water. As the water droplets increase, they clump together to form a cloud. When the drops become too heavy to stay suspended in the air, they fall to Earth's surface. Water that falls to Earth's surface is called **precipitation**—known as **rain water**. Once on Earth's surface, rainwater may enter various bodies of water or the soil, or be used by millions of living organisms. Rainwater can also **evaporate** and change to **gas**. This gas is called water vapor. The water vapor, or gas, will then enter the air above Earth's surface. The heat from the sun speeds up the process of evaporation. At this point, the water cycle is completed.

**Bodies of Water:** Water can be found as ice in polar icecaps and glaciers. Fresh water can be found in streams, lakes, rivers, ponds, swamps, and marshes. Oceans and seas contain salt water. Oceans, seas, and bays cover much of the earth's surface and hold over 97% of Earth's water.

**Phases of Water:** Below 0°C (32°F) water molecules hold together and form a **solid** block we call **ice**. Heat melts ice and turns it back to **liquid** we call **water**. If more and more heat is added, the liquid will eventually turn to **gas**.

### **Note to teacher about the overall approach to introducing new vocabulary:**

In general we suggest that it is best to avoid the question "What's this?" even if the teacher immediately supplies the answer. For that matter, it is best never to ask a question for which the only possible student answer would be in English. Instead, the teacher creates a context for introducing the vocabulary item, an approach common to Natural Approach and TPRS. For example, "I'm thirsty, and I want some water. Oh look! Here is some water. (Drinking) Good water. I like to drink water." Teacher takes a glass half full of water and hands it to a child: "Here, take the water. Don't spill the water! Give the water to (name of another child)." And so on. This way the learners associate the new vocabulary with an experience. Then the teacher can go on to point to different examples and ask if they are water or not (some should be water, some not). Then it is an easy transition to the globe and the map: ("This is a globe/map. The globe/map gives us a picture of the water and the land on the Earth. Look: the blue on the globe/map is a picture of the water. Look, this isn't blue. Is it water? Right—it isn't water. This is land. We can stand on land. Can we stand on water?" And so on.)

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## Lesson 1 - Where in the World is Water?

Lesson 1 of 5		Duration: 30 Minutes
<i>Objectives</i>	<p><b>I Can:</b></p> <p>Oral language:</p> <ul style="list-style-type: none"> <li>• Name Earth, land, and water.</li> <li>• Tell that there is more water than land on Earth.</li> </ul> <p>Literacy:</p> <ul style="list-style-type: none"> <li>• Recognize the words <i>water</i> and <i>land</i>.</li> </ul> <p>STEM and Other Subject Areas:</p> <ul style="list-style-type: none"> <li>• Identify water and land on Earth.</li> <li>• Show more and less as related to water and land on Earth.</li> </ul>	
<i>Performance Assessment</i>	Students make a presentation about their findings: (1) locate water and land on the Earth; (2) there is more water on Earth.	
<i>Vocabulary and Expressions</i>	<b>Recycled</b>	<b>New</b>
	What?  What color is...? blue green right yes no	Is this? This is...  Where is...? Here is...  Earth globe map land water more less
<i>Materials / Resources</i>	<ul style="list-style-type: none"> <li>○ Plastic balloon globes or maps</li> <li>○ Visuals of water (<b>Worksheet 1a</b>)</li> <li>○ 2 clear plastic glasses of water: one full, one not</li> <li>○ Blue and green crayons</li> <li>○ Blue and green sticky notes (enough to cover world map)</li> <li>○ Puppet</li> </ul>	

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Key Elements	Lesson 1 Procedures
<p><i>Engagement</i></p> <ul style="list-style-type: none"> <li>• Object, event or question used to engage students.</li> <li>• Connections facilitated between what students know and can do</li> </ul>	<p><b>Introduce <i>water</i> and <i>land</i></b></p> <p>T: (Gesturing thirsty) <i>I'm thirsty, and I want some water.</i> (Sees half glass of water on the desk.) <i>Oh look! Here is some water.</i></p> <p>T: (Teacher takes another glass half full of water and hands it to a child.) <i>Here, take the water. Don't spill the water! Give the water to _____</i> [Name a student]. (Teacher directs the children to pass the water around in this way, sometimes varying with <i>Give me the water</i>, and finishing the activity with) _____ [Name of another student] <i>Give me the water.</i></p> <p>T: <i>Where else can we find water?</i> (Pointing at one of the pictures from <b>Worksheet 1a</b>) <i>Is there water here?</i></p> <p>T: (Have a volunteer point to the water. If there is water in the classroom, such as fish tank or a sink, inviting a volunteer to look for water in the classroom. While they look, lead the class in a chant.) <i>Water! Water! Where is water?</i></p> <p><b>Students identify <i>water</i> and <i>land</i> on the map.</b></p> <p>T: (Looking at the map or globe): <i>This is a globe/map. The globe/map gives us a picture of the water and the land on the Earth.</i></p> <p>T: (Pointing at water on the map) <i>Look, what color is this?</i></p> <p>S: <i>Blue.</i></p> <p>T: <i>There is a lot of blue, isn't there? The blue is the water on the map. Look, this isn't blue. What color is it?</i></p> <p>S: <i>Green.</i></p> <p>T: <i>Is it water? Right—it isn't water. This is land. We can stand on land. Can we stand on water?</i></p> <p>T: (Looking at the map and asking puppet) <i>Where is water/land on the map?</i></p> <p>P: (Puppet pointing at the water/land) <i>Here Here it is!</i></p> <p>T: (Looking at the map and asking puppet) <i>Where is water/land on the map?</i></p> <p>S: (Puppet pointing at the water/land) <i>Here Here it is!</i></p> <p>(Repeat sequence)</p>
<p><i>Exploration</i></p> <ul style="list-style-type: none"> <li>• Objects and phenomena are explored.</li> </ul>	<p><b>Re-introduce colors <i>green</i> and <i>blue</i></b></p> <p>T: (Holding a blue crayon and asking) <i>Puppet, what color is this?</i></p> <p>P: <i>It's blue!</i></p>

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Key Elements	Lesson 1 Procedures
<ul style="list-style-type: none"> <li>● Hands-on activities, with guidance.</li> </ul>	<p>T: <i>Stand up if you are wearing blue.</i></p> <p>T: (Holding a green crayon and asking students) <i>What color is this?</i></p> <p>S: <i>It's green!</i></p> <p>T: <i>Stand up if you are wearing green.</i></p> <ul style="list-style-type: none"> <li>● Have students hold up different blue/green objects</li> <li>● Have volunteers find something blue/green in the classroom.</li> </ul> <p><b>Make the color connection to <i>water</i> and <i>land</i></b></p> <p>T: (Referring to a map) <i>What color is the water on the globe/map?</i></p> <p>S: <i>Blue.</i></p> <p>T: <i>Right, blue. It's blue. Water is blue. There is a lot of blue on the globe/map.</i></p> <p>T: (Pointing to green land) <i>What color is the land on the globe/map?</i></p> <p>S: <i>Green.</i></p> <p>T: <i>Yes, green. The land is green.</i></p> <p><b>Invite a few individual students to point to water/land on the map.</b></p> <p>T: (Modeling) <i>This is water/land. It is blue/green.</i></p> <p>S: (Pointing and saying) <i>This is water/land. It is blue/green.</i></p>
<p><i>Explanation</i></p> <ul style="list-style-type: none"> <li>● Students explain their understanding of concepts and processes.</li> <li>● New concepts and skills are introduced as conceptual clarity and cohesion are sought.</li> </ul>	<p><b>Introduce the concept of <i>more</i> and <i>less</i></b></p> <p>T: (Pouring water into two clear plastic containers, one with more water and one with less, far apart from each other) <i>Which one has more water? Point to the glass with more water.</i></p> <p>T: (Switching containers back and forth) <i>Which one has more water?</i> (Pointing to the glass with more water.)</p> <p>T: (Switching containers back and forth) <i>Which one has less water?</i> (Pointing to the glass with less water.)</p> <p>T: (Help students to become familiar with the concept and vocabulary by comparing various quantities of classroom materials.)</p> <p><b>Students identify water and land on the map with sticky notes.</b></p> <p>T: (Modeling by putting a sticky note on the map) <i>This is blue. It's water.</i></p> <p>T: (Looking at the map and putting the blue sticky note on water) <i>This is water.</i></p>

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Key Elements	Lesson 1 Procedures
	<p>T: (Modeling by putting a sticky note on the map) <i>This is green. It's land.</i></p> <p>T: (Looking at the map and putting the green sticky note on land) <i>This is land.</i></p> <ul style="list-style-type: none"> <li>Ask volunteer students to place additional blue/green sticky notes on water/land on the map. While the student puts the sticky note on the map, he/she also identifies its color and explains what it represents.</li> <li>Repeat this activity until the map is covered.</li> </ul>
<p><i>Elaboration</i></p> <ul style="list-style-type: none"> <li>Activities allow students to apply concepts in contexts, and build on or extend understanding and skill.</li> </ul>	<p><b>Discuss <i>more</i> and <i>less</i> as related to water and land</b></p> <p>T: (Going to the map and asking students to predict) <i>Which is more, blue or green?</i></p> <p>T: <i>Who thinks there is more blue/green? Raise your hand.</i></p> <p>Invite students to answer. Tally their answers on the board. (To be used for discussion with students later)</p> <p><b>Transfer and count all the blue and green sticky notes to show that there is more water than land</b></p> <p>T: (Taking one blue sticky note and placing it on in the board: one column for blue/water and the other for green/land).</p> <p>T: (Modeling while transferring the notes): <i>This is blue. This is water.</i></p> <p>T: (Invite students to continue to transfer the notes. Ask them to explain the color and what it represents. Put the colored sticky note under the appropriate column).</p> <p>T: <i>Blue for water and green for land.</i></p> <p>S: <i>Blue for water and green for land.</i></p>
<p><i>Evaluation</i></p> <ul style="list-style-type: none"> <li>Students assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness.</li> </ul>	<p><b>Guide students to come to a conclusion that there is more water than land on the Earth</b></p> <p>T: (Pointing at the board with sticky notes): <i>Are there more blue or green sticky notes?</i></p> <p>S: (Probably) <i>Blue!</i></p> <p>T: (Pointing to the tally to verify) <i>Yes, there are more blue sticky notes. Let's look at our map.</i></p> <p>T: (Pointing at the map) <i>This is water. This is land. Which is more?</i></p> <p>S: <i>Water.</i></p> <p>T: (Pointing the map) <i>This is water, this is land. There is more water on earth.</i></p> <ul style="list-style-type: none"> <li>Invite students to come to front to present their findings.</li> </ul>

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Teacher Reflections on Lesson 1 – <i>Where in the World is Water?</i>	
What worked well?	
What did not work well?	
What would I do differently?	
Other comments or notes	



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## Lesson 2 – Where Does Water Go?

Lesson 2 of 5		Duration: 30 Minutes
<i>Objectives</i>	<p><b>I Can:</b></p> <p>Oral language:</p> <ul style="list-style-type: none"> <li>• Name the bodies of water: stream, river, bay, ocean</li> <li>• Use the word duck in short expressions</li> </ul> <p>Literacy:</p> <ul style="list-style-type: none"> <li>• Recognize the words <i>stream, river, bay, ocean, food, and duck</i>.</li> </ul> <p>STEM and Other Subject Areas:</p> <ul style="list-style-type: none"> <li>• Identify bodies of water</li> </ul>	
<i>Performance Assessment</i>	Students will demonstrate how water flows from Maryland streams to rivers, the bay, and the ocean.	
<i>Vocabulary and Expressions</i>	<p><i>Stream, river, bay, ocean</i></p> <p><i>Duck, swim, food</i></p> <p><i>live/lives, hungry, thirsty, trash</i></p>	
<i>Materials/Resources</i>	<ul style="list-style-type: none"> <li>○ Plastic globe or world map</li> <li>○ Map of Maryland with ocean, rivers, and bay in blue and land in green.</li> <li>○ Slide show – “Little Duck Is Hungry” (<b>Worksheet 2a</b>)</li> <li>○ Toy duck or puppet</li> <li>○ Little Duck story (<b>Worksheet 2b</b>, group sets)</li> <li>○ Vocabulary flash cards (<b>Worksheet 2c</b>)</li> <li>○ Maryland Waterways map(<b>Worksheet 2d</b>)</li> </ul>	

Key Elements	Lesson 2 Procedures
<p><i>Engagement</i></p> <ul style="list-style-type: none"> <li>• <i>Object, event or question used to engage students.</i></li> <li>• <i>Connections facilitated between what students know</i></li> </ul>	<p><b>Introduce map of Maryland</b></p> <p>T: (Reviewing water/land on globe or map.) <i>Is this land? Is this water?</i></p> <p>S: (Answer accordingly)</p> <p>T: (Asking the puppet) <i>Where is Maryland?</i></p> <p>P: (Puppet answers, pointing to the map of Maryland) <i>Here</i></p> <p>T: (Pointing at the map of Maryland) <i>This is the map of Maryland. I live here.</i></p> <p>T: (Putting teacher-made cut out drawings of houses and stick figures of people on the map) <i>Do you live in Maryland?</i></p>

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Key Elements	Lesson 2 Procedures
<p><i>and can do</i></p>	<p>S: <i>Yes.</i></p> <p>T: (Holding globe/or pointing to the map) <i>Where do we live?</i></p> <p>S: (Pointing) <i>Here</i></p> <p><b>Introduce flow of water from stream to ocean</b></p> <p>T: (Pointing to increasingly smaller bodies of water on the map of Maryland) <i>This is water/the ocean/ the bay/ the river/ a stream.</i></p> <p>Reintroduce <i>more</i> by asking <i>Which has more water, the ocean or the bay? The stream or the river?</i></p> <p>T: <i>What color is the water/land on the map?</i></p> <p>S: <i>Blue/Green</i></p> <p>T: <i>What color is ocean (bay/ river/stream) on the map?</i></p> <p>S: <i>Blue</i></p> <p>T: (Pointing to the map) <i>Is this water or land?</i></p> <p>S: (Students answer accordingly)</p> <ul style="list-style-type: none"> <li>• Repeat this action/sequence a few times. Invite students to come to the map to point to water, and respond, <i>Yes, that’s water. That’s the ocean/bay/river/stream.</i> If they seem ready, invite volunteers to play teacher, point to the map and ask a question or make a statement.</li> </ul>
<p><i>Exploration</i></p> <ul style="list-style-type: none"> <li>• <i>Objects and phenomena are explored.</i></li> <li>• <i>Hands-on activities, with guidance.</i></li> </ul>	<p><b>Introduce the story, “Little Duck Is Hungry”</b></p> <p>T: (Puts a hand into a pocket or a magic box.) <i>What is this?</i> (Pause) (Pulls out a toy duck or puppet) <i>Oh, look! It’s a duck.</i> (Teacher acts very surprised.) <i>Where did this duck come from?</i></p> <p>T: (Holding the duck and walking among students) <i>Is this your duck, [Student name]?</i> (Repeat with several students.)</p> <p>S <i>No</i> (most likely) <i>or yes.</i></p> <p>T: (Still holding the duck) <i>I guess this is my duck. He isn’t very big, so let’s call him “Little Duck.”</i></p> <p>T: (Talking to the duck) <i>Little Duck, say Hello to your friends here.</i></p> <p>P: <i>Hello, friends.</i></p> <p>T: <i>Now, friends, say Hello to Little Duck.</i></p> <p>S: <i>Hello, Little Duck.</i></p> <p><b>Show students different possibilities where Little Duck might live.</b></p> <p>T: <i>Little Duck lives in Maryland. Where does Little Duck live in Maryland? Does he live on the land? Does he live on the water?</i></p> <p>S: (Answering according to question)</p>

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Key Elements	Lesson 2 Procedures
	T: <i>Yes, Little Duck lives on both land and water.</i>
<p>Explanation</p> <ul style="list-style-type: none"> <li>• <i>Students explain their understanding of concepts and processes.</i></li> <li>• <i>New concepts and skills are introduced as conceptual clarity and cohesion are sought.</i></li> </ul>	<p><b>Introduce the story to show students how water flows from stream to ocean</b></p> <p>T: (Showing picture of stream) <i>Little Duck lives next to a little stream. How does he get from the stream to the river? (Pause) He swims. (Gesturing or using TPR to facilitate understanding) I can swim. _____ [Name a student] can you swim? Raise your hand if you can swim.</i></p> <p>T: (Holding the duck on the map and demonstrating the trip) <i>He swims from the stream to the river, to the bay, and to the ocean.</i></p> <p>T: (Gesturing or using TPR to facilitate understanding) <i>It's a long trip and Little Duck is hungry.</i></p> <p style="padding-left: 40px;">Teacher will show the story "Little Duck Is Hungry," in which a little duck goes from his home in a Maryland stream to the Chesapeake Bay and on to the Atlantic Ocean. The story is translated into the target language and read aloud.</p> <p>Teacher asks guiding questions (using TPR gestures) while turning pages for a book walk. Students gesture or answer.</p> <p style="padding-left: 40px;"><i>Where does Little Duck live?</i></p> <p style="padding-left: 40px;"><i>Little Duck is hungry.</i></p> <p style="padding-left: 40px;"><i>What does Little Duck want?</i></p> <p style="padding-left: 40px;"><i>Where does he go? Is this the river or the stream?</i></p> <p style="padding-left: 40px;"><i>Does he find food there?</i></p> <p style="padding-left: 40px;"><i>What is in the river? Is there food or trash in the river/bay?</i></p> <p>Read story out loud to students, including content-based questions such as those asked during the book walk.</p>
<p>Elaboration</p> <ul style="list-style-type: none"> <li>• <i>Activities allow students to apply concepts in contexts, and build on or extend understanding and skill.</i></li> </ul>	<p><b>Show how water flows from streams to the ocean.</b></p> <p>T: <i>Where does Little Duck go? Does he go from the stream to the river?</i></p> <p>S: <i>He goes from the stream to the river.</i></p> <p>T: (Holding duck or puppet,) <i>Where does Little Duck go? (Demonstrate using toy duck and map.)</i></p> <p>T: (Pointing to a student) <i>Can you show me?</i></p> <p>T: (Giving each student a packet of photos from the Little Duck story <b>(Worksheet 2b)</b>, students show Little Duck's trip through the waterways.</p>

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Key Elements	Lesson 2 Procedures
<p><i>Evaluation</i></p> <ul style="list-style-type: none"> <li>• <i>Students assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness.</i></li> </ul>	<p><b>Use the story pictures and show Maryland waterways on the map.</b></p> <ul style="list-style-type: none"> <li>• Students will line up the pictures (<b>Worksheet 2b</b>) according to how the water flows to the Bay (<b>Worksheet 2d</b>).</li> </ul>

Teacher Reflections on Lesson 2 – <i>Where Does Water Go?</i>	
What worked well?	
What did not work well?	
What would I do differently?	
Other comments or notes	

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## Lesson 3 - Is Water Always Water?

Lesson 3 of 5		Duration: 30 Minutes
<i>Objectives</i>	<p><b>I can:</b></p> <p>Oral language:</p> <ul style="list-style-type: none"> <li>• Name the phases of the water cycle</li> <li>• Describe the weather in simple sentences.</li> <li>• Use the word <i>spider</i> in short expressions.</li> </ul> <p>Literacy:</p> <ul style="list-style-type: none"> <li>• Recognize the words that describe the water cycle and related vocabulary: <i>sunny, rainy, cloudy, and snowy</i></li> </ul> <p>STEM and Other Subject Areas:</p> <ul style="list-style-type: none"> <li>• Identify phases of the water cycle.</li> </ul>	
<i>Performance Assessment</i>	Students will describe the phases of the water cycle.	
<i>Vocabulary and Expressions</i>	spider sun/sunny rain/rainy cloud/cloudy snow/snowy sky weather hot cold water cycle melt these What is the weather like today?	
<i>Materials/Resources</i>	<ul style="list-style-type: none"> <li>○ <b>Worksheet 3a (or Weather wheel )</b></li> <li>○ <b>Worksheet 3b</b></li> <li>○ <b>Worksheet 3c</b></li> <li>○ <b>Small plastic spiders</b></li> <li>○ <b>Enlarged visual made from Worksheet 3c</b></li> <li>○ <i>The Itsy Bitsy Spider</i> song</li> <li>○ English: <a href="http://bit.ly/oSAGG4">http://bit.ly/oSAGG4</a></li> <li>○ <a href="http://www.youtube.com/watch?v=JYZTOdwE9eg&amp;feature=related">http://www.youtube.com/watch?v=JYZTOdwE9eg&amp;feature=related</a></li> </ul>	

## WATER, WATER EVERYWHERE

Key Elements	Lesson 3 Procedures
<p><b>Engagement</b></p> <ul style="list-style-type: none"> <li>● Object, event or question used to engage students.</li> <li>● Connections facilitated between what students know and can do</li> </ul>	<p><b>Introduce weather changes</b></p> <p>T: <i>What's the weather like today?</i> (Pause, looking out the window) <i>It's snowy/sunny/cloudy/rainy or cold/hot</i> (Depending on the weather on that day and holding up the appropriate pictures.)</p> <p>T: (Engaging students in question) <i>What's the weather like today?</i></p> <p>S: <i>It's snowy/sunny/cloudy/rainy or cold/hot.</i></p> <p>T: (Using visuals of weather, Ask and answer the same questions.) <i>What's the weather like today?</i></p> <p>S: (Answer according to the visuals)</p> <p>T: (Showing the video about weather, narrate through the first set of pictures.) <i>Oh, look, it's sunny/rainy/cloudy/snowy.</i></p> <p>T: (Holding up the visuals, ask either/or questions.) <i>Is it cloudy or sunny? Is it sunny or rainy?</i></p> <p>The URL of this video can be used as a base for weather-related activities using TPR. <a href="http://www.youtube.com/watch?v=KgHe_l1x9W4">http://www.youtube.com/watch?v=KgHe_l1x9W4</a></p>
<p><b>Exploration</b></p> <ul style="list-style-type: none"> <li>● Objects and phenomena are explored.</li> <li>● Hands-on activities, with guidance.</li> </ul>	<p><b>Sing the Itsy Bitsy Spider song</b></p> <p>Before class, “hide” several small plastic spiders around the classroom in obvious places.</p> <p>T: (Using TPR gestures and visuals, reinforce <b>sun, cloud</b> and introduce new vocabulary <b>spider</b>)</p> <p>T: (Pretending to “find” one of the spiders.) <i>Oh look! I found a little spider. Look around—can you see another spider? Who can find another spider?</i></p> <p>T: (Calling on a volunteer to find another spider, praise the child and hold up the two spiders.) <i>Do I have one spider or two spiders?</i></p> <p>T: (Continue with additional volunteers and additional spiders. After several times of asking an either/or question) <i>How many spiders do we have now?</i> When all spiders have been found (or enough to continue), tell the class, <i>I know a song about a spider—do you know this song? It's about a very small spider— An itsy bitsy spider!</i></p> <p><b>Draw a rough picture of a water spout on the board.</b></p> <p>T: (Using one of the spiders, the picture of the water spout, and pictures of the rain and the sun, sing the song and dramatize the action with the visuals): <i>Itsy Bitsy Spider</i></p> <p>T: Sing the song again, instead using familiar gestures for each line. Invite the</p>

## WATER, WATER EVERYWHERE

Key Elements	Lesson 3 Procedures
	<p>children to do the gestures with you while you sing, and repeat several times.  <i>The itty bitsy spider went up the water spout,  Down came the rain and washed the spider out;  Out came the sun and dried up all the rain,  And the itty bitsy spider went up the spout again.</i></p> <p>Teacher asks guiding questions (using TPR gestures). Students gesture or answer.</p> <p>T: <i>Does the spider go up? Who goes up?</i>  T: <i>What comes down?</i>  T: <i>What comes out?</i>  T: <i>Does the sun dry up the rain?</i>  T: <i>Does the spider go up again?</i>  T: <i>Does the spider go up or down?</i></p> <p>T: (Lead students in singing the song again and showing students the Itsy Bitsy Spider video if available )  <a href="http://www.youtube.com/watch?v=JYZTOdwE9eg&amp;feature=related">http://www.youtube.com/watch?v=JYZTOdwE9eg&amp;feature=related</a></p>
<p><b>Explanation</b></p> <ul style="list-style-type: none"> <li>Students explain their understanding of concepts and processes.</li> <li>New concepts and skills are introduced as conceptual clarity and cohesion are sought.</li> </ul>	<p><b>Reinforce the concept of evaporation</b></p> <p>Teacher asks follow-up questions (using TPR gestures). Students gesture or answer.</p> <p>T: <i>This is a song about a spider, but it is also a song about water. (Hold up visual for rain.) Is the rain water? Yes, the rain is water!</i></p> <p>T: (Hold up visual for snow) <i>Is the snow water? (Pause for student response. Maybe ask students to vote.) Yes, the snow is water, too.</i></p> <p>T: (Hold up visual for clouds.) <i>Are the clouds water? (Pause.) Yes, the clouds are water, too.</i></p> <p>T: (Holding up visual for sun.) <i>Out came the sun and... (Pause to see if children can complete the line). What does the sun do?</i></p> <p>T: <i>Where does the rain go? (Pause.) It goes up to the sky.</i></p> <p>T: <i>Does the sun come out?</i></p>
<p><b>Elaboration</b></p> <ul style="list-style-type: none"> <li>Activities allow students to apply concepts in contexts, and build on or extend understanding</li> </ul>	<p><b>Introduce the concept that water can look different</b></p> <p>T: (Holding pictures of clouds and sun, depicting heat energy) <i>These are clouds. Is there water in the clouds?</i></p> <p>S: <i>Yes, there is water in the clouds.</i></p> <p>T: (Pointing to picture of clouds) <i>There is a lot of water in the clouds. What is going to happen? (Pause) The water is going to fall. Now we call it rain.</i></p> <p>T: <i>What comes down from the clouds? (Pause) The rain comes down from the</i></p>

## WATER, WATER EVERYWHERE

Key Elements	Lesson 3 Procedures
and skill.	<p><i>clouds.</i></p> <p>T: <i>When the weather is very cold, what happens? Does the water come down as rain or snow? (Pause) It comes down as snow.</i></p> <ul style="list-style-type: none"> <li>• Teacher repeats sequence as necessary for comprehension.</li> <li>• Teacher uses enlarged picture of <b>Worksheet 3a</b> to repeat the stages of the water cycle, using the same sentences as those present on the worksheet, with some variations. After modeling, have several volunteers point to the part of the picture that fits the statement.</li> </ul>
<p><i>Evaluation</i></p> <ul style="list-style-type: none"> <li>• Students assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness.</li> </ul>	<p><b>Students will identify the order of the phases of the water cycle</b></p> <p>Students will use picture to describe the water cycle. <b>Worksheet 3a</b></p>



## WATER, WATER EVERYWHERE

Teacher Reflections on Lesson 3 – <i>Is Water Always Water?</i>	
What worked well?	
What did not work well?	
What would I do differently?	
Other comments or notes	

# WATER, WATER EVERYWHERE

## Lesson 4 - Why Does Water Change?

Lesson 4 of 5		Duration: 30 Minutes
<i>Objectives</i>	<b>I Can:</b> Oral language: <ul style="list-style-type: none"><li>• Name the 3 states of water.</li></ul> Literacy: <ul style="list-style-type: none"><li>• Recognize the words: <i>solid, liquid, and gas</i></li></ul> STEM and Other Subject Areas: <ul style="list-style-type: none"><li>• Name the states of water</li><li>• Tell why water changes</li></ul>	
<i>Performance Assessment</i>	Students will categorize the different states of water.	
<i>Vocabulary and Expressions</i>	solid gas liquid ice air change into	
<i>Materials/Resources</i>	<ul style="list-style-type: none"><li>○ Real examples of liquids other than water: such as paint, glue, juice, soda, baby oil, shampoo, and cooking oil.</li><li>○ Real examples of solid, crayons, wooden blocks, books, etc.</li><li>○ One large mirror and several small mirrors</li><li>○ Visuals representing three states of water (<b>Worksheet 4a</b>)<ul style="list-style-type: none"><li>○ (Each student has one set, prepared ahead of time in envelopes)</li><li>○ One enlarged set for teacher to use</li></ul></li><li>○ Chart (<b>Worksheet 4b</b>)</li></ul>	

## WATER, WATER EVERYWHERE

Key Elements	Lesson 4 Procedures
<p><i>Engagement</i></p> <ul style="list-style-type: none"> <li>• Object, event or question used to engage students.</li> <li>• Connections facilitated between what students know and can do</li> </ul>	<p><b>Review the Itsy bitsy Spider song and phases of the water cycle</b></p> <p>T: (Leads students to sing the song with gestures)</p> <p>T: <i>When the sun comes out, where does rain go? Does it dry up?</i> (Using TPR gestures)</p> <p>S: <i>Yes!</i></p> <p>T: <i>And where does it go when it dries up? Up to the sky?</i> (Using TPR gestures)</p> <p>S: <i>It goes up to the sky.</i></p> <p>T: <i>What does the rain/water make in the sky?</i> (Using TPR gestures)</p> <p>S: <i>Clouds</i></p> <p>T: <i>Is it hot or cold when it snows?</i> (Using TPR gestures)</p> <p>S: <i>It's cold.</i></p> <p>T: <i>When sun comes out, what happens to the snow? Does it go away?</i></p> <p>S: <i>Yes! It goes away!</i></p>
<p><i>Exploration</i></p> <ul style="list-style-type: none"> <li>• Objects and phenomena are explored.</li> <li>• Hands-on activities, with guidance.</li> </ul>	<p><b>Introduce three states of water –liquid (rain or other), solid (ice/snow), gas</b></p> <p>T: (Showing visuals of the three states of water) <i>Is this water?</i> (Pause) <i>Yes. This is water.</i> (Continuing with pictures of different states of water)</p> <p>T: (Modeling TPR gestures for <b>solid</b>, <b>liquid</b>, and <b>gas</b>, teach vocabulary for the states of the water.)</p> <p>T: (Pointing to a particular picture) <i>What is this?</i> (pause) <i>Is it solid? It is solid. When water freezes it is a solid, like ice or snow.</i></p> <p>T: (Pointing out other solids in the classroom and naming them, invites students to point out other solids in the classroom) <i>This is a solid.</i></p> <p>T: (Going back to the pictures and having students point out water as a solid)</p> <p>T/S: <i>Ice/snow.</i></p> <p>T: (Pouring water from one glass to another.) <i>This is a liquid. What are some other liquids?</i></p> <p>T: (Holding up other items, including paint, cooking oil, baby oil, shampoo, lotion, but also including some solids from the classroom) <i>Is this a liquid or a solid?</i></p> <p><b>To further illustrate water as a gas.</b></p> <p>T: <i>There is water in the air, can you see it?</i> (Blow in the air.)</p> <p>S: <i>No.</i></p> <p>T: (Blow into your hand.) <i>Can you feel it?</i></p> <p>S: (Students follow the example of blowing into their hands.) <i>Yes.</i></p> <p>T: (Bring out and demonstrate with a mirror. After modeling, have students breathe on a mirror and see the water condense on the mirror.) <i>Now, can</i></p>

## WATER, WATER EVERYWHERE

Key Elements	Lesson 4 Procedures
	<p><i>you see it?</i></p> <p>S: Yes.</p> <p>T: <i>The gas became a liquid on the mirror, but you couldn't see it before. There is water in the air.</i></p> <p>T: (Post signs representing the 3 states of water on a wall of the classroom, such as a snowman for <b>solid</b>, rain for <b>liquid</b>, and one for <b>gas</b>).</p> <p>T: (Modeling the vocabulary and gestures, students repeat the gestures): <i>This is snow, it is solid</i> (Model making an imaginary snowball and throwing it.). <i>This is rain, it is liquid.</i> (Imitate raindrops falling with the fingers, or drinking water out of a glass.) <i>This is a gas. We can't see a gas.</i> (Model puffing air out of the mouth.)</p> <p>T: (Leading students to walk to posted symbols of the 3 states of water, demonstrating their understanding by using the appropriate gesture, adding the words as they become more confident.) <i>What's this?</i></p> <p>S: <i>It's solid/liquid/gas.</i></p>
<p><i>Explanation</i></p> <ul style="list-style-type: none"> <li>Students explain their understanding of concepts and processes.</li> <li>New concepts and skills are introduced as conceptual clarity and cohesion are sought.</li> </ul>	<p><b>Students explain their understanding of the concept of the states of water</b></p> <p>T: (Pointing to the snowman) <i>Why is the water solid?</i> (Pause) <i>It's very cold. It's frozen.</i></p> <p>T: (Ask students chorally individually) <i>Why is the water solid?</i></p> <p>S: <i>It's very cold. It's frozen.</i></p> <p>T: (Pointing to water coming from the faucet) <i>Is this water solid, liquid, or gas?</i></p> <p>S: <i>It's a liquid.</i></p> <p>T: That's right. It's not frozen, and we can see it.</p>
<p><i>Elaboration</i></p> <ul style="list-style-type: none"> <li>Activities allow students to apply concepts in contexts, and build on or extend understanding and skill.</li> </ul>	<p><b>Students explain when water is solid, liquid or gas</b></p> <p>T: (Displaying enlarged pictures from <b>Worksheet 4a</b>) <i>Is this a solid or a liquid? Can we see it?</i></p> <p>S: (With teacher direction, students answer accordingly.)</p> <p>T: <i>Is it water?</i></p> <p>S: (With teacher direction, students answer accordingly.)</p> <p>T: <i>Is it very cold, frozen?</i></p> <p>S: <i>It's very cold!</i></p> <p>T: (Continue using picture prompts to elicit vocabulary.)</p>

## WATER, WATER EVERYWHERE

Key Elements	Lesson 4 Procedures
	<p>Students use pictures cut from <b>Worksheet 4a</b> and organize them according to the temperature.</p> <ul style="list-style-type: none"> <li>• Depict cold, temperate, and hot on the drawings of the thermometers. Post on wall or board.</li> <li>• Students put pictures of states of water beneath the appropriate temperature.</li> </ul> <p>T: (Pointing to a thermometer) <i>Is it very cold or hot?</i>            S: (Answer accordingly.)            T: (Continue with other two thermometers)            T: (Showing students how to match the pictures with the thermometer)            S: (Take a cut out picture and place under appropriate thermometer.)            T: (Pointing to worksheet) <i>Is it very cold? Is this a solid? Is this ice?</i>            S: (Pointing) <i>Yes. It is cold. This is ice/snow.</i></p>
<p><b>Evaluation</b></p> <ul style="list-style-type: none"> <li>• Students assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness.</li> </ul>	<p><b>Students identify examples of the three states of water</b></p> <ul style="list-style-type: none"> <li>• Cut up the 12 pictures on <b>Worksheet 4a</b></li> <li>• Instruct students to glue the pictures in the 3 different groups as indicated (solid, liquid, gas) on <b>Worksheet 4b</b></li> <li>• Students present findings to teacher and class.</li> </ul>

## WATER, WATER EVERYWHERE

Teacher Reflections on Lesson 4 – <i>Why Does Water Change?</i>	
What worked well?	
What did not work well?	
What would I do differently?	
Other comments or notes	

## WATER, WATER EVERYWHERE

### Lesson 5 - Assessment Task

Lesson 5 of 5		Duration: 30 Minutes
<i>Objectives</i>	<p>Students can demonstrate their understanding of the Water, Water, Everywhere Module including:</p> <ul style="list-style-type: none"> <li>• There is more water than land on earth.</li> <li>• Bodies of water in Maryland flow from the streams to the bay to the ocean.</li> <li>• Water has different states.</li> <li>• Water circulates from the land to the sky and back again.</li> </ul>	
<i>Vocabulary and Expressions</i>	No new vocabulary or expressions	
<i>Performance Assessment</i>	Students will graphically demonstrate their understanding of water and describe their graphic using limited vocabulary and short phrases.	
<i>Materials/Resources</i>	<ul style="list-style-type: none"> <li>○ Globe and/or map of earth</li> <li>○ Map of Maryland</li> <li>○ Ice cube in zip lock bag – 1 bag per student, labeled with student names</li> <li>○ 1 transparent glass or plastic container of water</li> <li>○ Picture of Itsy Bitsy Spider on the water spout</li> </ul>	

Key Elements	Lesson 5 Procedures
<p><i>Engagement</i></p> <ul style="list-style-type: none"> <li>• Object, event or question used to engage students.</li> <li>• Connections facilitated between what students know and can do</li> </ul>	<p><b>Conduct overview of previous lesson by engaging students in hands-on experiment</b></p> <p>T: (Showing ice cube in zip lock bag): <i>This is ice. Is it a solid or a liquid?</i>            S: <i>It's a solid.</i></p> <p>T: <i>Good. It's solid.</i></p> <p>T: <i>And, if it isn't solid?</i>            S: <i>It's water/liquid or gas.</i></p> <p>T: <i>Right! Now let's put our bags of ice on the...</i>  <i>(Preferably a sunlit window sill or shelf). What do you think is going to happen to the ice?</i></p>

## WATER, WATER EVERYWHERE

Key Elements	Lesson 5 Procedures
	<p>S: .... (Varied responses) <i>It will be ice/gas /liquid.</i></p> <p>T: (Taking tally on pre-labeled chart or board: <b>ice/water/ gas.</b>) <i>How many think the ice will stay the same? Will it be liquid/gas?</i> (Students raise hands to indicate choice of answer. Teacher tallies numbers, counting out loud with the students.)</p> <p>T: <i>We'll wait and see what happens to our ice cubes.</i></p>
<p><i>Exploration</i></p> <ul style="list-style-type: none"> <li>● Objects and phenomena are explored.</li> <li>● Hands-on activities, with guidance.</li> </ul>	<p><b>Students demonstrate understanding bodies of water</b></p> <p>T: (Pointing to globe or map) <i>This is a globe/map. It shows us what the earth looks like.</i></p> <p>T: (Pointing to blue /green areas) <i>What's this?</i></p> <p>S: <i>Water/Land</i></p> <p>T: (Continue questioning.)</p> <p>T: (Continuing) <i>There's a lot of water on the earth, but sometimes it doesn't look like water! When it's very cold the water freezes. What do we call it then?</i></p> <p>S: <i>Ice / snow</i></p> <p>T: <i>Right, If it's cold, water turns to ice or snow.</i></p> <p>T: <i>And if it's hot? VERY hot?</i></p> <p>S: <i>Steam!</i></p> <p>T: <i>Good. Water turns to steam when it gets very hot. Another word for steam is gas.</i></p> <p>T: <i>What do we call water when it is in this glass? Is it solid, liquid, or gas?</i></p> <p>T: (Pointing to Maryland map) <i>Where do we live? Do we live in Maryland?</i></p> <p>S: <i>Yes, We live in Maryland.</i></p> <p>T: <i>Let's see if we remember where the water goes.</i> (Start with stream and elicit oral responses.)</p> <p>S: <i>Stream to river to bay to ocean.</i></p> <p>T: <i>Good. That the way the water flows! Can you show me on the map?</i></p> <p>S: (Student volunteers point out stream, river, bay and ocean on map) <i>It goes from the stream, to the river, to the bay and to the ocean.</i></p> <p>T: <i>What happens to the little streams and rivers when it gets VERY VERY cold and freezes? (With gestures)</i></p> <p>S: <i>Ice.</i></p> <p>T: <i>And what do you think happens when it gets hot? (With gestures)</i></p> <p>S: <i>gas.</i></p>



## WATER, WATER EVERYWHERE

Key Elements	Lesson 5 Procedures
	T: <i>Good. The water turns into a gas.</i>
<p><i>Explanation</i></p> <ul style="list-style-type: none"> <li>Students explain their understanding of concepts and processes.</li> <li>New concepts and skills are introduced as conceptual clarity and cohesion are sought.</li> </ul>	<p><b>Students explain different states of water</b></p> <p>T: <i>So is water always the same?</i>  S: <i>NO!</i>  T: <i>What do we call the different forms of water?</i> (Holds up pictures of different forms of water, <b>Worksheet 4a</b>)  S: <i>Solid, Liquid, Gas</i>  T: <i>Good job!</i></p>
<p><i>Elaboration</i></p> <ul style="list-style-type: none"> <li>Activities allow students to apply concepts in contexts, and build on or extend understanding and skill.</li> </ul>	<p><b>Students demonstrate their understanding of the water cycle</b></p> <p>T: (Pointing to picture of spider on the water spout) <i>What's this?</i>  S: <i>It's a spider.</i>  T: <i>When the spider climbed up the water spout, what washed him out?</i>  S: <i>Rain!</i>  T: <i>Good! Did steam wash him out?</i>  S: <i>No. The rain came down and washed him out!</i>  T: <i>And what is rain? Is it solid, liquid, or gas?</i>  S: <i>It's liquid.</i>  T: <i>Great!</i></p>

## WATER, WATER EVERYWHERE

Key Elements	Lesson 5 Procedures
<p><i>Evaluation</i></p> <ul style="list-style-type: none"> <li>Students assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness.</li> </ul>	<p><b>Students will discover what happened to their ice cubes</b></p> <p>T: <i>Now friends, let's see what happened to our ice cubes! How many think the ice is still ice?</i> (Continue questioning with water).</p> <p>T: <i>Let's look at our tally.</i> (Teacher re-counts the numbers in the tally). <i>Now let's get our ice cubes.</i></p> <p>Each student retrieves his own pre-labeled zip lock bag.</p> <p>T: <i>What happened to the ice? Did it melt?</i></p> <p>S: <i>Yes, it melted.</i></p> <p>T: <i>Is there still ice in the bag?</i></p> <p>S: <i>Yes/no</i></p> <p>S: (Answer accordingly)</p> <p>T: <i>Let's look at our tally again. How many thought the ice would melt and become liquid/water?</i> (Count with students). (Continue with numbers of those who guessed steam/gas).</p> <p>S: (Repeating numbers with teacher)</p> <p>T: <i>And so were more students right or wrong?</i></p> <p>S: <i>More were right!</i></p> <p>T: <i>More were right. The ice turned to water because it got warm.</i></p> <p>(Possible additional activity. Pour the water from the bag into a flat, shallow dish and leave it until the next day, or until later in the class. The water should evaporate. Ask, <i>What happened to the water? Did it turn into a solid? No, it turned into a gas. Can we see it? No, because it is a gas.</i>)</p>

## WATER, WATER EVERYWHERE

Teacher Reflections on Lesson 5 – <i>Assessment Task</i>	
What worked well?	
What did not work well?	
What would I do differently?	
Other comments or notes	