Module Overview

Target Language: Spanish Grade Level: 2

Proficiency Level: Junior Novice Low-Junior Novice Mid

Summary: 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.

Enduring Understanding: There is more water than land on Earth and water can be found in different places and forms.

Essential Questions: Where can we find water? What happens to water?

Standards Targeted

5C - World Language Standards

Communication

- Students understand spoken and written language on very familiar topics in the target language that promote the learning of basic linguistic structures. (1.2A)
- Students engage in brief exchanges about personal interests. (1.3A)

Connections

 Students access new information and reinforce existing knowledge of other content areas through the target language (3.1A)

5E - STEM Standards

2.ECS Earth's Changing Surface

Students who demonstrate understanding can:

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.

Technology

- A.1 Use and understand how technology enhances learning
- 3. C.1 Use and understand how technology increases productivity
- 4. A.1 Identify and understand how technology is used for communication
- 4. B.1 Identify and understand how technology is used to express ideas

Math Common Core

Measurement and Data

- 1. MD. 4 Organize, represent, and interpret data with up to three categories.
- K. MD. 2 Describe and Compare measurable attributes.

K.	MD. 3 Classify Objects and count the number
	of objects in each category.

PK.	MD. 4 Compare categories using words such
	as more or same.

Knowledge: Students will know	Skills: Students can
Vocabulary	 Identify and name bodies of water. Name the 3 states of water (solid, liquid and gas states) Express that there is more water than land on Earth

Module Duration and Lessons: Five 30 minute lessons

Lesson 1 - Where in the World is Water? ¿En la Tierra, dónde se puede encontrar el agua?

Lesson 2 - Where Does Water Go? ¿A dónde va el agua?

Lesson 3 - Is Water Always Water? ¿El agua es siempre agua?

Lesson 4 - How Does Water Change? ¿Por qué cambia el agua?

Lesson 5 - Assessment Task

Performance Assessment:

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.

Materials/Resources

- World map or globe, preferably in blue and green
- Puppet/mascot
- o Plastic duck
- Map of Maryland (ocean, rivers are in blue and lands are in green color)
- Smart Board (optional)
- o Blue and green crayons

- Blue and green sticky notes
- o Computers with drawing program
- o Paper
- o Pencils
- o Slide show: "Little Duck is Hungry"
- Itsy Bitsy Spider songs
 - English: http://bit.ly/oSAGG4
 - Spanish: http://bit.ly/r7u0kg
- o Worksheet 1a

o Worksheet 2a, 2b, 2c, 2d

Worksheet 4a, 4b

o Worksheet 3a, 3b, 3c

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.)

Lesson 1 - Where in the World is Water?

¿En la Tierra, dónde se puede encontrar el agua?

Lesson 1 of 5	Lesson 1 of 5 Duration: 30 Minutes	
Objectives	I Can: Oral language: Name La Tierra, tierra, and Tell that there is more wat Literacy: Recognize the words agua STEM and Other Subject Areas: Identify water and land on Show more and less as relationships.	er than land on Earth. and tierra.
Performance Assessment	Students make a presentation about on the Earth; (2) there is more wat	ut their findings: (1) locate water and land er on Earth.
Vocabulary and Expressions	Recycled ¿Qué? ¿De qué color es? azul verde correcto sí no	New ¿Es? Esto es ¿Dónde está? Aquí está la tierra el globo terrestre el mapa la tierra el agua más menos
Materials/Resources Plastic balloon globes or maps Visuals of water (Worksheet 1a) 2 clear plastic glasses of water: one full, one not Blue and green crayons Blue and green sticky notes (enough to cover world map) Puppet		

Key Elements	Lesson One Procedures
Engagement • Object, event or question used to	Introduce water and land T: (Gesturing thirst) Tengo sed. Me gustaría un vaso de agua. (Sees half glass of water on the desk)¡Mira! Aquí hay un poco de agua.
engage students.Connections	T: (Teacher takes another glass half full of water and hands it to a child) Toma el agua. No derrames el agua. Dale el agua a[name of student].
facilitated between what students know and can do	(Teacher directs the children to pass the water around in this way, sometimes varying with <i>Dame el agua</i> , and finishing the activity with <i>Dame el agua</i> .)
una can ao	T: (Teacher takes another glass half full of water and hands it to a child)
	Toma el agua. No derrames el agua. Dale el agua a[name of student]. (Teacher directs the children to pass the water around in this way, sometimes varying with Dame el agua, and finishing the activity with Dame el agua.)
	T: ¿En qué otro lugar podemos encontrar agua? (Pointing at one of the picture from Worksheet 1a) Hay agua aquí? 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.) iAgua! iAgua!, ¿Dónde está el agua?
	Students identify water and land on the map T: (Looking at the map or globe): Este es un globo terrestre/un mapa. El golbo terrestre/el mapa nos muestra en donde está el agua y en donde está la tierra. T: (Pointing at water on the map) Mira. ¿De qué color es? S: Es azul. T: ¡Mira! Casi todo es azul. ¡Mira! Este no es azul. ¿De qué color es? S: Es verde. T: ¿Es agua? S: No, no es agua. T: Sí. Cierto. No es agua. Es tierra. T: (Looking at the map and asking puppet) ¿En dónde está el agua/la tierra? P: (Puppet pointing at the water/land) Aquí. ¡Aquí está! T: (Looking at the map and asking puppet) ¿Dónde está el agua/la tierra en el mapa? S: (Puppet pointing at the water/land) Aquí. ¡Aquí está! • Repeat sequence
Exploration • Objects and phenomena are explored. • Hands-on activities, with	Re-introduce colors green and blue T: (Holding a green/blue crayon and asking the puppet) P: Maríoneta, ¿De qué color es? P: Es azul/verde. T: (To students) Los niños vestidos de azul/verde, levántense. T: (Holding a green/blue crayon and asking students)¿De qué color es? S: Es azul/verde.

quidance.

T: Los niños vestidos de azul/verde, levántense.

- Have students hold up different blue/green objects
- Have volunteers find something blue/green in the classroom.

Make the color connection to water and land

T: (Referring to a map or globe) ¿De qué color es el agua en el mapa? S: Es azul.

T: Así es. Es azul. El agua es azul. ¡Cuánto azul hay en el mapa!

T: (Pointing to green land) What color is the land on the globe/map? ¿De qué color es la tierra en el mapa?

S: Green. Es verde.

T: Yes, green. The land is green. Sí, es verde. La tierra es verde.

• Invite a few individual students to point to water/land on the map.

T: (Pointing and saying) *This is water/land. It is blue/green. Esta es agua, es azul. Esta es tierra, es verde.*

S: Esta es agua, es azul. Esta es tierra, es verde.

Explanation

- Students explain their understanding of concepts and processes.
- New concepts and skills are introduced as conceptual clarity and cohesion are sought.

Introduce the concept of more and less.

T: (Pouring water into two clear plastic containers, one with more water and one with less, far apart from each other and pointing to the glass with more water.) ¿Cuál tiene más agua? Apunta al que tiene más agua.

T: (Switching containers back and forth and pointing to the glass with more water.) ¿Cuál tiene más agua? Apunta al que tiene más agua.

T: (Switching containers back and forth and pointing to the glass with less water.)

¿Cuál tiene menos agua? T: (Help students to become familiar with the concept and vocabulary by comparing varíous quantities of classroom materials.)

Students identify water and land on the map with sticky notes

T: (Now referring back to the globe/map) *Vamos a ver el globo/mapa*.

T: (Modeling by putting a sticky note on the map) Esta es azul. Es agua.

T: (Looking at the map and putting the blue sticky note on water) Es agua.

T: (Modeling by putting a sticky note on the map) Esta es verde. Es tierra.

T: (Looking at the map and putting the green sticky note on land) Es tierra.

- 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.
- T: (To student) Ponga las notas pegajosas azules/verdes en el mapa.
- T: ¿De que color es la nota?
- S: Es azul/verde.
- T: ¿Qué signífica este color?
- S: Es agua/tierra.
- Repeat this activity until the map is covered.

Elaboration

• Activities allow students to apply concepts in contexts, and build on or extend understanding and skill.

Discuss more and less as related to water and land

T: (Going to the map and asking students to predict) ¿Hay más notas de azul o de verde?

T: ¿Quién cree que hay más notas azules? ¿Quién cree que hay más verdes? Invite students to answer. Tally their answers on the board. (To be used for discussion with students later)

Transfer and count all the blue and green sticky notes to show that there is more water than land

T: (Take one blue sticky note and place it on the board - one column for blue/water and the other for green/land).

T: (Modeling while transferring the notes): Este es azul. Es agua.

T: (Invite students to continue to transfer the notes. Ask them to explain what color is it and what it represents. Put the color sticky under the appropriate column.)

T: Azul es para el agua y verde para la tierra.

S: Azul es para el agua y verde para la tierra.

Evaluation

• Students assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness.

Guide students to come to a conclusion that there is more water than land on the Earth

T: (Pointing at the board with sticky notes) ¿Hay más notas de azul o de verde?

S: (Probably) ¡Azul!

T: (Pointing to the tally to verify) *Yes, there are more blue sticky notes. Let's look at our map.* Sí, hay más de azul. Miramos al mapa.

T: (Pointing at the map) Esta es tierra. Y aquí aqua. ¿Cuál es más grande?

S: Water. Agua.

T: (Pointing the map) Esta es tierra. Y aquí agua. Hay más tierra que agua en la tierra.

Invite students to come to front to present their findings.

Teacher Reflection – Lesson one: ¿En la Tierra, dónde se puede encontrar el agua?	
What worked well?	
What did not work well?	
How will I do this differently?	
Other comments or notes	

Lesson 2 – Where Does Water Go? ¿A dónde va el agua?

Lesson 2 of 5	Duration: 30 Minutes
Objectives	 I Can: Oral language: Name the bodies of water: Arroyo, río, bahía, océano. Use the word pato in short expressions Literacy: Recognize the words arroyo, río, bahía, océano, alimento, pato. STEM and Other Subject Areas: Identify bodies of water
Performance Assessment	Students will demonstrate how water flows from Maryland streams to rivers, the bay, and to the ocean.
Vocabulary and Expressions	El arroyo El río la bahía El océano pato nadar alimento vivir tiene hambre tiene sed
Materials/Resources	Plastic globe or world map Map of Maryland with ocean, rivers, and bay in blue and land in green. Slide show – "Little Duck is Hungry" - "Patito Tiene Hambre" (Worksheet 2a) Toy duck or puppet Little Duck story (Worksheet 2b, group sets) Vocabulary flash cards (Worksheet 2c) Maryland Waterways map(Worksheet 2d)

Key Elements	Lesson Two Procedures
Engagement ● Object, event or question used to	Introduce map of Maryland T: (Reviewing water/land on globe or map.) ¿Es tierra? ¿Es agua? S: (Answer accordingly)

engage students.

Connections facilitated between what students know and can do

- T: (Asking the puppet) ¿Dónde está Maryland?
- P: (Puppet answers, pointing to the map of Maryland) Aquí.
- T: (Pointing at the map of Maryland) Este es el mapa de Maryland. Yo vivo aquí.
- T: (Putting teacher-made cut out drawings of houses and stick figures of people on the map) ¿Vives en Maryland?
- S: Sí
- T: (Holding globe/or pointing to the map) ¿Dónde vivimos?
- S: (Pointing): Aquí

Introduce flow of water from stream to ocean

T: (Pointing to increasingly smaller bodies of water on the map of Maryland) Esta es agua. Este es el océano / el río / el arroyo.

T: (Reintroduce more by asking) ¿Cuál tiene más agua? ¿El océano o la bahía? ¿El arroyo o el río?

T:¿De qué color es el agua / la tierra en el mapa?

S: Azul/ verde

T:¿De qué color es el océano / la bahía en el mapa?

S: Azul

T: (Pointing to the map) ¿Qué es esto, agua o tierra?

S: (Students answer accordingly)

Repeat this action/sequence a few times. Invite students to come to the
map to point to water, and respond: Sí, es agua. Es el océano / la bahía / el
río / el arroyo. If they seem ready, invite volunteers to play teacher, point
to the map and ask a question or make a statement.

Exploration

• Objects and phenomena are explored.

• Hands-on activities, with guidance.

Introduce the story, "Little Duck Is Hungry"

- T: (Puts a hand into a pocket or a magic box.)¿Qué es esto? (Pause, pulling out a toy duck or puppet) ¡Mira, es un pato! (Teacher acts very surprised.) ¿De dónde vino este pato?
- T: (Holding the duck and walking among students) ¿Es este tu pato? (Student name)? (Repeat with several students.)
- S: No / Sí
- T: (Still holding the duck) *Creo que es mi pato. No es muy grande. Así que lo llamaremos Patito.*
- T: (Talking to the duck) Patito, saluda a nuestros amigos.
- P: Hola amigos.
- T:. Amigos, saluden a Patito.
- S: Hola Patito.

Show students different possibilities where Little Duck might live

- T: Patito vive en Maryland. ¿En qué lugar de Maryland vive Patito? Vive en la tierra o vive en el agua?
- S: (Answering according to question)
- T: Así es, Patito vive tanto en el agua como en la tierra.

Explanation

- Students explain their understanding of concepts and processes.
- New concepts and skills are introduced as conceptual clarity and cohesion are sought.

Introduce the story to show students how water flows from stream to ocean

T: (Showing picture of stream) *Patito vive cerca del arroy. ¿Cómo va del arroyo al río?* (Pause) *Nadando* (Gesturing or using TPR to facilitate understanding) *Yo puedo nadar.* (Naming student) *¿....puedes nadar? Levanta la mano si sabes nadar.*

T: (Holding the duck on the map and demonstrating the trip) *Nada del arroyo al río, a la bahía y al océano.*

T: (Gesturing or using TPR to facilitate understanding) *Es un viaje largo y Patito tiene hambre.*

• 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.

Teacher asks guiding questions (using TPR gestures) while turning pages for a book walk. Students gesture or answer.

T: ¿En dónde vive Patito?

T: ¿Tiene hambre Patito?

T: ¿Qué quiere Patito?

T: ¿A dónde va Patito?

T: ¿Encontrará comida ahí?

• Read story out loud to students, including content-based questions such as those asked during the book walk.

Elaboration

• Activities allow students to apply concepts in contexts, and build on or extend understanding and skill.

Show how water flows from streams to the ocean

T: ¿Adónde va Patito? ¿Va del arroyo al río?

S: He goes from the stream to the river. Patito va del arroyo al río.

T: (Holding duck or puppet,) Where does Little Duck go? (Demonstrate using toy duck and map.) ¿A dónde va Patito?

T: (Pointing to a student) Can you show me? ¿Me puedes mostrar a dónde va Patito?

T: (Giving each student a packet of photos from the Little Duck story (**Worksheet 2b**), students show Little Duck's trip through the waterways.

Evaluation

• Students assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness.

Use the story pictures and show Maryland waterways on the map.

• Students will line up the pictures (**Worksheet 2b**) according to how the water flows to the Bay (**Worksheet 2d**).

Teacher Reflection – Lesson two: ¿A dónde va el agua?	
What worked well?	
What did not work well?	
How will I do this differently?	
Other comments or notes	

Suggestions/ ideas:

Explanation: Introduce a story to show students how water flows from stream to ocean

Teacher can put blue construction paper, representing bodies of water, on the floor, and ask students to show Little Duck's trip.

Lesson 3 - Is Water Always Water? ¿El agua es siempre agua?

Lesson 3 of 5	Duration: 30 Minutes
Objectives	 I can: Oral language: Name the phases of the water cycle Describe the weather in simple sentences. Use the word araña in short expressions. Literacy: Recognize the words that describe the water cycle and related vocabulary: soleado, lluvioso, nublado, nevoso. STEM and Other Subject Areas: Identify phases of the water cycle.
Performance Assessment	Students will describe the phases of the water cycle.
Vocabulary and Expressions	la araña el sol/ soleado la lluvia/lluvioso la nube/ nublado nevar/ nevoso el cielo el tiempo caliente frío ciclo del agua derretir estos ¿Qué tiempo hace hoy?
Materials/Resources	Worksheet 3a or Weather wheel Worksheet 3b Worksheet 3c Small plastic spiders Enlarged visual made from Worksheet 3c The Itsy Bitsy Spider song en español http://www.guiainfantil.com/servicios/musica/Canciones/la_arana.htm http://bit.ly/r7u0kg

Key Elements	Lesson Three Procedures
Engagement • Object, event or question used to engage students. • Connections facilitated between what students know	Weather changes T: (Pause, looking out the window) (Depending on the weather on that day and holding up the appropriate pictures) ¿Qué tiempo hace hoy? T: (Engaging students in question) ¿Qué tiempo hace hoy? S: Está nevoso / soleado / nublado / lluvioso / caliente / frío. T: (Using visuals of weather, ask and answer the same questions) ¿Qué tiempo hace hoy?
and can do	S: (Answer according to the visuals) T: (Showing the video about weather, narrate through the first set of pictures.) Mira! Está soleado / Iluvioso / nublado / nevoso. T: (Holding up the visuals, ask either/or questions.)¿Está soleado / Iluvioso ? ¿Nublado / nevoso? http://www.youtube.com/watch?v=KgHe_I1x9W4 (Visual only, no language)
Exploration • Objects and phenomena are explored. • Hands-on activities, with guidance.	Itsy Bitsy Spider song Before class, "hide" several small plastic spiders around the classroom in obvious places. T: (Using TPR gestures and visuals, reinforce sun, cloud and introduce new vocabulary spider) el sol, la nube, la araña T: (Pretending to "find" one of the spiders.) ¡Mira! Encontré una pequeña araña. Mira a tu alrededor. Ves otra araña. Quién puede encontrar otra araña? T: (Calling on a volunteer to find another spider, praise the child and hold up the two spiders.) ¿Tengo una o dos arañas? T: (Continue with additional volunteers and additional spiders. After several times of asking an either/or question) ¿Cuántas arañas tenemos ahora? (When all spiders have been found tell the class) I know a song about a spider—do you know this song? It's about a very small spider—an itsy-bitsy spider! Tengo una canción de una pequeña araña. ¿Sabes? (Draw a rough picture of a spider and a water spout on the board.) 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) "La pequeña araña" La pequeña araña subió, subió, subió vino la lluvia y se la llevó. Salió el sol y todo lo secó y la pequeña araña

subió, subió, subió. http://www.guiainfantil.com/servicios/musica/Canciones/la arana.htm T: (Sing the song again, instead using familiar gestures for each line. Invite the children to do the gestures with you while you sing, and repeat several times.) Teacher asks guiding questions (using TPR gestures). Students gesture or answer. T: ¿Salió el sol? T: ¿Subió la la pequeña araña? T: ¿Vino la lluvia? T: ¿Qué vino? T: ¿Qué salió? T: ¿Todo lo seco? T: ¿La pequeña araña subió? T: (Lead the students in singing the song again.) The URL of this video can be use as base for weather related activities using TPR http://www.youtube.com/watch?v=JYZTOdwE9eg&feature=related Explanation Reinforce the concept of evaporation Teacher asks follow-up questions (using TPR gestures). Students gesture or • Students explain answer. their understanding T: ES una canción sobre una pequeña araña. También es sobre el agua. (Hold of concepts and up visual for rain.) ¿ Es agua la lluvia? processes. T: (Hold up visual for snow) ¿ Es agua la nieve? (Pause for student response. New concepts and Maybe ask students to vote.) Sí, la nieve es agua también. skills are introduced T: (Hold up visual for clouds.) ¿Son de agua las nubes? (Pause.) Sí. Son de as conceptual clarity agua las nubes. and cohesion are T: (Holding up visual for sun.) Salió el sol y...(Pause to see if children can sought. complete the line) ¿Que hace el sol? T: Where does the rain go? (Pause.) ¿Qué pasa con la lluvia? ¿Sube al cielo?¿Todo les seco? ¿Por qué? (Pause) T: Porque salió el sol! T: ¿Salió el sol? S: Sí. Salió el sol. Elaboration Introduce the concept that water can look different. T: (Holding pictures of clouds and sun, depicting heat energy) Estas son los Activities allow nubes. ¿Hay agua en las nubes? students to apply S: Sí, hay agua en los nubes. concepts in T: (Pointing to picture of clouds) Hay mucha agua en las nubes. ¿Qué va a contexts, and build pasar? (Pause) on or extend T: El agua va caer de los nubes. Ahora se llama la lluvia. understanding and T:¿Qué cae de los nubes? (Pause) La lluvia viene de los nubes.

T: When the weather is very cold, what happens? ¿Qué pasa cuando hace

skill.

	 frío? ¿Llueve o nieva? (Pause) Nieva. Teacher repeats sequence as necessary for comprehension. Teacher uses enlarged picture of Worksheet 3a 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.
Evaluation • Students assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness.	The Water Cycle Students will use pictures to describe the water cycle. Worksheet 3a

Teacher Reflection – Lesson Three: ¿El agua es siempre agua?	
What worked well?	
What did not work well?	
How will I do this differently?	
Other comments or notes	

Lesson 4 - Why Does Water Change? ¿Por qué cambia el agua?

Lesson 4 of 5	Duration: 30 Minutes
Objectives	 I Can: Oral language: Name the 3 states of water. Literacy: Recognize the words: sólido, líquido, gas
	STEM and Other Subject Areas: Name the states of water Tell why water changes
Performance Assessment	Students will categorize the different states of water.
Vocabulary and Expressions	el sol/ soleado la lluvia/lluvioso la nube/ nublado nevar/ nevoso el cielo el tiempo caliente frío ciclo del agua derretir estos ¿Qué tiempo hace hoy? Se convierte en
Materials/Resources	Real examples of liquids other than water, such as paint, glue, juice, soda, baby oil, shampoo, and cooking oil. Real examples of solid, crayons, wooden blocks, books, etc. A large mirror and several small mirrors Visuals representing three states of water (Worksheet 4a) (Classroom set cut up and put in envelopes for each student) One enlarged set for teacher to use Chart (Worksheet 4b)

Key Elements	Lesson Four Procedures
Engagement • Object, event or question used to engage students. • Connections facilitated between what students know and can do	Review the Itsy Bitsy Spider song and phases of the water cycle T: (Leads students to sing the song with gestures) T:¿Cuándo salió el sol, todo lo secó? (Using TPR gestures) S: ¡Sí! T:¿ Y adónde va la lluvia cuando lo secó? (Using TPR gestures) S: Va al cielo /las nubes. T:¿Qué hace el agua cuando sube al cielo? (Using TPR gestures) S: Las nubes. T: Hace frío o hace calor cuando nieva? (Using TPR gestures) S: Hace frío. T: When sun comes out, what happens to the snow? ¿Cuándo sale el sol, qué pasa con la nieve? ¿Desaparece? S: Sí. Desaparce.
Exploration • Objects and phenomena are explored. • Hands-on activities, with guidance.	Introduce three states of water — liquid (rain or other), solid (ice/snow), gas T: (Showing visuals of the three states of water) ¿Es agua? (Pause) Sí. Es agua. (Continuing with pictures of different states of water) (Worksheet 4a) T: (Modeling TPR gestures for sólido, líquido, and gas, teach vocabulary for the states of the water.) T: (Pointing to a particular picture) ¿Qué es esto? ¿Es sólido? (pause) Es sólido. Cuando el agua congela lo convierten en un sólido, como hielo o nieve. T: (Pointing out other solids in the classroom and naming them, invites students to point out other solids in the classroom) Es sólido. T: (Going back to the pictures and having students point out water as a solid) ¿Qué es esto? ¿Cómo es? S: Es sólido. T: (Pouring water from one glass to another.) Es líquido ¿Cuáles son otros ejemplos de líquido? T: (Holding up other items, including paint, cooking oil, baby oil, shampoo, lotion, but also including some solids from the classroom) ¿Es sólido o líquido? To further illustrate water as a gas. T: (Blow in the air.) Hay agua en el aire, se puede verlo? S: No. T: (Blowing on own hand.) Ahora, lo haces. ¿Puedes sentirlo? S: (Blow on own hands) Sí. T: Sí. Puedes sentirlo sino no puedes verlo. T: (Demonstrating blowing on a mirror. After modeling, have students breathe on a mirror and see the water condense on the mirror.) ¿Ahora puedes verlo? S: Sí T: El gas se convirtió en un líquido en el espejo, pero no podías verlo antes. Hay agua en el aire. T: (Post signs representing the 3 states of water on a wall of the classroom,

	such as a snowman for <i>sólido</i> , rain for <i>líquido</i> , and one for <i>gas</i>).
	T: (Modeling the vocabulary and gestures, students repeat the gestures): Esta es la nieve. Es sólido. (Model making an imaginary snowball and throwing it.) Esta es la lluvia. Es líquido. (Imitate raindrops falling with the fingers, or drinking water out of a glass.) Este es el gas. No podemos verlo. (Model puffing air out of the mouth.)
	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.) ¿Qué es este? S: Es sólido /líquido/gas
Explanation	Students explain their understanding of the concept of the states of water
• Students explain their understanding of concepts and processes.	T: (Pointing to the snowman) ¿Por qué es sólido el agua? (Pausing) Tiene mucho frío. Es hielo. T: (Ask students chorally individually) ¿Por qué es sólido el agua? S: Tiene mucho frío. Es hielo.
 New concepts and skills are introduced as conceptual clarity and cohesion are sought. 	T: (Pointing to water coming from the faucet) ¿Esto es sólido, líquido o gas? ¿Podemos verlo? S: Sí S: Es líquido.
	T: ¿Es nieve? ¿Hielo? T: Sí. No es hielo y podemos verlo. Así es el agua. Es líquido.
Elaboration Activities allow students to apply concepts in contexts, and build on or extend understanding and	Students explain when water is solid, liquid or gas T: (Displaying enlarged pictures from Worksheet 4a) ¿Qué essólido o líquido? ¿Gas? ¿Podemos verlo? S: (With teacher direction, students answer accordingly.) T: (Asking questions such as) ¿Es agua? ¿Es hielo? ¿Tiene frío? ¿Tiene calor? S: (With teacher direction to prompt use of voacbulary, students answer accordingly.)
skill.	 Students use pictures cut from Worksheet 4a and organize them according to the temperature. Depict cold, temperate, and hot on the drawings of the thermometers. Post on wall or board. Students put pictures of states of water beneath the appropriate temperature.
	T: (Pointing to thermometer) ¿Hace frío o hace calor? 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) ¿Hace mucho frío? ¿Es sólido? ¿Es hielo? S: (Pointing) Yes. It is cold. This is ice/snow. Sí. Hace frío. Este es hielo.
Evaluation • Students assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness.	 Students identify examples of the three states of water Cut up the 12 pictures on Worksheet 4a Instruct students to glue the pictures in the 3 different groups as indicated (solid, liquid, gas) Worksheet 4b Students present findings to teacher and class.

Teacher Reflection- <i>Lesson Four: ¿Por qué cambia el agua?</i>	
What worked well?	
What did not work well?	
How will I do this differently?	
Other comments or notes	

Lesson 5 - Assessment Task

Lesson 5 of 5	Duration: 30 Minutes
Objectives	Students can demonstrate their understanding of the Water, Water, Everywhere Module including: • There is more water than land on earth. • Bodies of water in Maryland flow from the streams to the bay to the ocean. • Water has different states. • Water circulates from the land to the sky and back again.
Performance Assessment	Students will graphically demonstrate their understanding of water and describe their graphic using limited vocabulary and short phrases.
Vocabulary and Expressions	No new vocabulary or expressions
Materials/Resources	Globe and/or map of earth Map of Maryland Ice cube in zip lock bag – 1 bag/student labeled with student names 1 transparent glass or plastic container of water Picture of Itsy Bitsy Spider on the water spout

Key Elements	Lesson Five Procedures
Engagement Object, event or question used to engage students. Connections facilitated between what students know and can do	Conduct overview of previous lesson by engaging students in hands-on experiment. T: (Showing ice cube in zip lock bag): Este es hielo. ¿Es sólido o liquid? S: Es sólido T: Bueno. Es sólido? S: It's water/liquid or gas. T: Bueno. Ahora vamos a poner nuestros bolsos de hielo en el (Preferably a sunlit window sill or shelf) ¿Qué crees que va a pasar con el hielo? S: (Varied responses including single word) Agua/Tierra T: Sí. Se convertirá en el agua/Se va a cambiar a agua/líquido. T: (Taking tally on pre labeled chart or board: ice/water/gas.) ¿Cuántos piensan que el hielo se mantendrá igual? ¿Será líquido ¿ ¿ Será gas? (Students raise hands to indicate choice of answer. Teacher tallies numbers, counting out loud with the students.) T: Vamos a esperar y ver qué pasa con nuestros cubos de hielo.

 Objects and phenomena are explored. Hands-on activities, with guidance. 	Students demonstrate understanding bodies of water. T: (Pointing to the globe/map) Este es el globo/mapa. Nos muestra como se parece La Tierra. T: (Pointing to blue /green areas) What's this? ¿Qué es este? ¿Es agua o tierra? S: Agua/tierra T: (Continue questioning.) T: (Continuing, using gestures to reinforce meaning) Hay mucha agua en la tierra, pero a veces no se ve como el agua. Cuando hace mucho frío el agua se congela. ¿Qué es lo que se llama entonces? S: Hielo / Nieve T: Bueno. Si hace frío, el agua se convierte en hielo o nieve. T: Y ¿Si hace calor? ¿Si hace mucho calor? (Using gestures) ¿Lo seca? S: Sí. Lo seca. T: (Pointing to a clear container of water) Ahora, miren este vaso de agua. ¿Es sólido? ¿Líquido? ¿Gas? S: Es liquid. T: (Pointing to Maryland map) Bueno, vamos a ver el mapa de Maryland a ver donde está el agua. T: ¿Recuerdan donde va el agua en nuestro estado? (Start with stream and elicit oral responses.) S: Arrroyo, al río, a al bahía, al océano. T: Bueno (Teacher repeats water flow) ¿Quién puede mostrarnos en el mapa? S: (Student volunteers point out stream, river, bay and ocean on map and with teacher prompting) Va del arrroyo, al río, a al bahía, al océano. T: ¿Qué pasa con el agua en los arroyos pequeños cuando hace mucho frío? (With gestures) S: Hielo T: And what do you think happens when it gets hot? ¿Qué pasa con el agua en los arroyos pequeños cuando hace mucho calor? (With gestures) S: Líquido T: ¿Y con MUCHO MUCHO calor? S: Gas T: Bueno. El agua se convierte en gas.
 Explanation Students explain their understanding of concepts and processes. New concepts and skills are introduced as conceptual clarity and cohesion are sought. 	Students explain different states of water T: ¿E el agua siempre la misma? S: NO! T: What do we call the different forms of water?¿Cómo se llama las diferentes formas de agua? (Holds up pictures of different forms of water Worksheet 4a?) S: Sólido, Líquido, y Gas T: ¡Bueno clase!
Elaboration	Students demonstrate their understanding of the water cycle

 Activities allow 	
students to apply	
concepts in	
contexts, and build	
on or extend	
understanding and	
skill.	

- T: (Pointing to picture of spider on the water spout) ¿Recuerdan lo que es?
- S: (with prompting) Es una araña.
- T: Cuando la araña subío por la tromba de agua, ¿qué se la llevó?
- S: (With teacher prompting) La *lluvia*.
- T: Bueno. ¿El gas se la llevó?
- S: No. ! La lluvia se la llevó.
- T: And what is rain? Is it solid, liquid, or gas? Y ¿Qué es la lluvia? ¿Es sólido, líquido, o gas?
- S: Es líquido.
- T: Sí. Es líquido.

Evaluation

• Students assess their knowledge, skills and abilities. Activities permit evaluation of student development and lesson effectiveness.

Students will match images of states of water to thermometers depicting different temperatures.

T: Ahora, vamos a ver lo que pasó con nuestros cubos de hielo. Cuántos de ustedes piensan que todavía hay hielo? (Continue questioning about water).

T: *Vamos a ver nuestra cuenta*. (Teacher re-counts the numbers in the tally). Vamos a ver nuestros blosos de cubos de hielo.

Each student retrieves his own pre-labeled zip lock bag.

- T: ¿Qué pasó con los cubos de hielo? ¿Se derrite el hielo? ¿Se convierte al agua?
- S: Sí. Es agua.
- T: ¿Hay hielo en los bolsos?
- S: (Answer accordingly) Sí/No
- T: Vamos a ver la cuenta. ¿Cuántos de ustedes pensaron que se convierte al agua? ¿al gas? (Count with students. Continue with numbers of those who guessed gas).
- S: (Repeating numbers with teacher)
- T:¿Eran más de acuerdos o no?
- S: Más eran de acuerdos.
- T: Sí. Más eran de acuerdos. El hielo se conveirte al agua proque se calienta.

(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, ¿Qué pasó con el agua? ¿Se conviirtió en un sólido? No. Se convirtió en un gas. Podemos verlo? No, porque de es un gas.)

Teacher Reflection	
What worked well?	
What did not work well?	
How will I do this differently?	
Other comments or notes	