

The Journey of Water Drop

Lesson Summary:

In this lesson, students will participate in a series of activities to learn about the water cycle and how they interact with it every day.

References:

Lesson adapted with permission from:

1. Bullitt County's *Water Quality Curriculum*, "Hydrologic (Water) Cycle To See Is To Believe" & "Recycled Water It's Everybody's Water"
2. Kentucky Environmental Education Council's *Wonderful Commonwealth of Water*, "To See Is to Believe", "Where Does All the Water Go", & "A Journey Through the Water Cycle"
3. Louisville Water Company's *Adventures in Water*, "Old As A Dinosaur"

Teacher Resources:

Classroom Activities

- *One Big Cycle* – page 130
 - Time: Approximately 30 – 45 minutes
 - Materials:
 - ✓ Art Supplies
 - ✓ Large Sheets of Paper
- *A Journey through the Water Cycle* – page 131
 - Time: Approximately 40 minutes
 - Materials:
 - ✓ Posters from "Water Walk" activity
 - ✓ 10 Bowls of Water
 - ✓ A Small Sponge for Each Student
 - ✓ Continent Name Tags (optional)
- *Rain Maker* – page 132 – 133
 - Time: Approximately 30 minutes to set up and discuss (check back several times to observe)
 - Materials:
 - ✓ 3 Two-Liter Plastic Bottles
 - ✓ 1 Hair Dryer
 - ✓ 2 Feet of Heavy Cotton String
 - ✓ Tape
 - ✓ Scissors
 - ✓ 1 Sharp Knife (or you could pre cut two-liter bottles ahead of time)
 - ✓ 5 – 7 Cups of Water
 - ✓ Ice
 - ✓ Hammer
 - ✓ Plant Seed (Chinese Cabbage or Radish)
- *Recycled Water* – page 135
 - Time: Approximately 25 minutes
 - Materials:
 - ✓ 1 Glass of Water for Each Student

- *Water Cycle Adventure* – page 137 – 138
 - Time: Approximately 15 minutes

 Handouts

- *Recycled* – page 136

 Worksheets

- *Understanding the Water Cycle* – page 134

Supplemental Lesson Resources:

 Power Point Presentation

- “The Journey of Water Drop” – available at: www.mccrearywater.com/funzone/powerpoint11

 Video

- “The Journey of Water Drop” – available at: www.mccrearywater.com/funzone (approximately 4 minutes)

The Journey of Water Drop

Objectives:

Science:

SC-EP-1.1.3

Students will describe the properties of water as it occurs as a solid, liquid or gas.

Matter (water) can exist in different states--solid, liquid and gas. Properties of those states of matter can be used to describe and classify them.

DOK 2

SC-04-2.3.1

Students will:

- classify earth materials by the ways that they are used;
- explain how their properties make them useful for different purposes.

Earth materials provide many of the resources humans use. The varied materials have different physical properties that can be used to describe, separate, sort and classify them. Inferences about the unique properties of the earth materials yield ideas about their usefulness. For example, some are useful as building materials (e.g., stone, clay, marble), some as sources of fuel (e.g., petroleum, natural gas), or some for growing the plants we use as food.

SC-04-2.3.2

Students will describe and explain consequences of changes to the surface of the Earth, including some common fast changes (e.g., landslides, volcanic eruptions, earthquakes), and some common slow changes (e.g., erosion, weathering).

The surface of the Earth changes. Some changes are due to slow processes such as erosion or weathering. Some changes are due to rapid processes such as landslides, volcanic eruptions and earthquakes. Analyzing the changes to identify cause and effect relationships helps to define and understand the consequences.

DOK 3

DOK 2

SC-04-2.3.3

Students will make generalizations and/or predictions about weather changes from day to day and over seasons based on weather data.

Weather changes from day to day and over seasons. Weather can be described by observations and measurable quantities such as temperature, wind direction, wind speed and precipitation. Data can be displayed and used to make predictions.

DOK 3

SC-04-3.4.1

Students will:

- compare the different structures and functions of plants and animals that contribute to the growth, survival and reproduction of the organisms;
- make inferences about the relationship between structure and function in organisms.

Each plant or animal has structures that serve different functions in growth, survival and reproduction. For example, humans have distinct body structures for walking, holding, seeing and talking. Evidence about the relationship between structure and function should be used to make inferences and draw conclusions.

DOK 3

SC-05-4.6.2

Students will understand that the Sun is a major source of energy for changes on Earth's surface. The Sun loses energy by emitting light. A tiny fraction of that light reaches Earth, transferring energy from the Sun to Earth.

Arts and Humanities:

AH-04-4.4.1

Students will create artwork using the elements of art and principles of design.

Writing:

WR-04-1.2.2

In Personal Expressive/Literary Writing,

- Students will communicate main idea through use of literary elements appropriate to the genre.
- Students will develop characters (fictional/non-fictional) through thoughts, emotions, actions, descriptions or dialogue when appropriate.
- Students will develop plot/story line appropriate to the form.
- Students will develop an appropriate setting, mood, scene, image or feeling.
- Students will apply literary or poetic devices (e.g., simile, metaphor, personification) when appropriate.
- Students will incorporate reflection, insight and analysis when appropriate.

Social Studies:

SS-04-4.4.1

Students will explain and give examples of how people adapted to/modified the physical environment (e.g., natural resources, physical geography, natural disasters) to meet their needs during the history of Kentucky and explain its impact on the environment today.

DOK 3

Lesson Plan:

The sun is the driving force behind the water cycle. It takes energy to make the cycle work. The water cycle is made up of four parts: evaporation; condensation; precipitation; and transpiration.

Think of the water cycle like a big recycling program. The idea when you recycle is to use something over and over again. That's what we do with water. Water never stops moving, it just changes forms. The water cycle is the way the Earth uses and recycles water. Water moves from the Earth to the sky over and over again. The Hydrologic Cycle (or water cycle) is not a simple circular cycle.

Evaporation

The heat from the sun sends the water from the Earth's surface (lakes, rivers, oceans, streams, etc.) to the sky - the water evaporates. Now the water is a gas or a water vapor. Water can even evaporate off of us! When we sweat (perspire), our sweat glands release saline (water containing salt and other waste products). When the sweat dries (evaporates), the waste remains, which is why sometimes our skin looks and tastes salty after sweating. Finally, even when humans and animals eliminate waste (go to the bathroom), we give off moisture, some of which will likely evaporate. It should be noted that pollutants in the atmosphere can attach to water vapor, and can come down with precipitation. Acid Rain received a lot of attention in the 1990s, but there are many other instances of polluted precipitation. For example, mercury emissions from coal fired power plants in China can come down in the form of rain and snow on America's west coast & Rocky Mountains.

Condensation

Once in the atmosphere, water vapor can turn back into its liquid form via condensation. This is how clouds form. It is also easy to see right here on the ground with a cup of ice water on a hot day. The beads of water that form on the glass are not coming through the glass; it is water vapor from the surrounding air that has cooled and collected on its surface, turning back into liquid water. This also explains why it is tough to get wet clothes to dry on your porch on a rainy day. Even though they're out of the rain, the air has too much moisture in it to allow the clothes to dry. The same goes for very humid days in the summer. Damp clothes just don't dry well because there is already so much water in the air.

Precipitation

When enough condensation occurs in the atmosphere, the liquid water droplets become bigger and bigger. Clouds are formed as more and more water vapor cools and collectively turns into larger water droplets. Once large enough, gravity turns the condensation into precipitation: water falling to the earth in the form of liquid or solid (rain, snow, ice, sleet, hail, etc.) Depending on the weather conditions, the water falls back to Earth as rain, snow, sleet or even hail. The water that falls to Earth goes into oceans, lakes and streams. In fact, 75% of the precipitation will fall back into the oceans. The rest of the water will either evaporate back to the sky or soak into the ground. People, plants, and animals will use the water.

Transpiration

Plants play a big role in the water cycle as well. Plants absorb water from the ground. They soak the water into their roots and use the water throughout their systems. Transpiration occurs when their leaves "release" water vapor to the atmosphere. Animals and humans play a role in the water cycle also. We too consume liquid water and release it as a gas, particularly when we breathe. When the air is cold, our breath usually condenses right away, which is why we can "see" our breath in the winter.

Lesson Plan: (Continued)

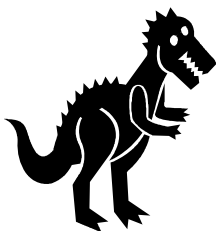
Try these ideas to get students thinking about each part of the water cycle!

Loads of Water:



Where is all the water that moves up from the Earth and back down from the clouds? Challenge your students to make a list of where water is found on the Earth. Make sure the list includes the three natural forms! Compile the ideas on the chalkboard/whiteboard and lead the class to these conclusions: there's a lot of water on Earth, all living things need water, and most of the water is in the oceans.

Dinosaur Water:



Give each student a cup of water. Ask them to take a drink. Then ask them "How old is the water?" After they brainstorm a few minutes ask if there's any way the water could possibly be as old as a dinosaur. Once they learn it's true, have the students write a story about the water in their cup. Where has it been over the years? What has it seen? The water you drink today could be the same water a dinosaur drank many years ago. There is about the same amount of water on Earth now as when dinosaurs roamed our planet. As the water makes its way back to the seas, it's also sculpting the way the Earth looks. When you really look at a river, it's never in a straight line. The force of water carves a curvy path for rivers and streams that are never a straight line.

Water Walk:



Take the class for a "water walk" to look for signs of the water cycle. This is best to do after it rains. You might give the students a checklist of things to look for. After the walk, discuss their observations.

Seeing Vapor:



Have students hold their hand in front of their mouth. Then breathe onto your hand at least five times. What do you feel on your hand? Moisture! You can also see this when you breathe onto a mirror. Watch as water droplets form on the mirror. The water vapor you breathed out is becoming a liquid.

The Sweating Soda:



Bring a cold soda can from the refrigerator. Watch as water drops form on the can. That's Condensation. Place some crushed ice in a dry glass. Cover the glass with a thin piece of cardboard and then wait a few minutes. You should see the outside of the glass become misty and tiny drops of water appear. What happened was the ice cooled the glass, the warm air in the glass was cooled, and the water vapor inside the glass changed to water drops. What would happen if you put the ice in a cold cup instead of a dry one?

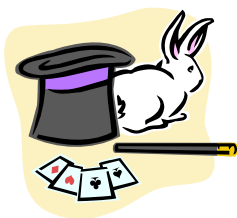
Lesson Plan: (Continued)

Plant Transpiration:



To illustrate transpiration take students outside to a grassy area. Give a few students clear plastic cups. Have the students place the cups over a patch of the grass. Hold the cups down tightly. Time how long it takes for moisture to form on the inside of the cup. Where's the water coming from in the glass? (From the plants, this is transpiration.)

Disappearing Act:



If you don't believe it, put just a few drops of water in a cup. Come back an hour later and they'll be gone. It is how dishes dry in the drying rack, how laundry dries on the clothes line, how a wet rain coat dries when you hang it up. Water in one of its purest forms is water vapor. Spill grape juice on your white shirt and you'll notice that the H₂O evaporates leaving the purple "stain" formed from the rest of the juice components. Spill a soda on the sidewalk and come back an hour later. It won't be "wet" anymore because the water has evaporated, but it will be sticky. All of the sugar and corn syrup in the soda can't evaporate with the water, and is left as the sticky residue on the sidewalk.

Classroom Activity: One Big Cycle

In this activity, students will learn how the different stages of the water cycle work. They'll also use creative thinking to demonstrate the water cycle and its properties. It will take you about 30 – 45 minutes to complete this activity. You'll need art supplies and large sheets of paper.

Here's what to do...

1. Review the three forms of water (liquid, solid and gas). Ask students to think about and discuss how they think water moves from one point to the next. Emphasize during this discussion the idea that water evaporating from a puddle or pond close to the school does not hang in the air around school. Instead it rises into the air and is blown around in the earth's atmosphere by wind. Explain that we reuse the water found on Earth over and over again, but that this water travels all around the earth. (A weather satellite picture from the Internet that shows cloud movement might help illustrate this concept better than verbal explanations. See: www.weather.com.)
2. Ask students what types of precipitation fall to Earth (rain, sleet, snow and hail) and list these on chart paper or the board. Discuss and list the form water takes once it falls back to Earth and becomes ground water and surface water (lakes, streams, ponds, puddles, glaciers, rivers, oceans, etc.).
3. Tell students that they will be creating a picture of the water cycle, but they must choose one water source (surface water) and a form of precipitation (e.g., rain and a pond or snow and a glacier) to show in their art work. Give students a variety of art materials to use (crayons, colored pencils, pastels, watercolors), but remind them that the picture must include evidence of **evaporation, condensation, precipitation** or **transpiration** taking place. (Post these words and review to make sure students understand their meaning before the students begin working on their pictures.)
4. Once students think their pictures have been completed, have them team up with a classmate and explain how the water cycle works in their illustration. (This will give students the opportunity to review the water cycle concept as they check to make sure they have included everything they need in their art work.)



5. Next, have students cut apart their pictures and store the pieces in envelopes. (It will help to remind students to cut the pictures into large, puzzle-shaped, pieces, instead of small slices. Demonstrate this step for younger students.) Also, ask each student to count the number of puzzle pieces their envelope contains, and write that number on the outside of the envelope, so the student using the puzzle can make sure all of the pieces are returned to the envelope. Students should also write their names on their envelope.

6. Once several students have completed their puzzles, have students work in pairs to exchange their envelopes and put together the puzzles created by other students. Remind each student to look for the way their classmates chose to show the water cycle once the puzzle has been reassembled. Discuss how they figured out which pieces go where.

Classroom Activity: A Journey through the Water Cycle

In this activity, students will learn about the journey that water makes as it travels through the water cycle. They will also learn that water is global and doesn't simply cycle through the exact same region but rather cycles throughout the whole world. It will take about 40 minutes to complete this activity. You'll need to complete the "water walk" mentioned in the lesson plan first. You'll need the posters created during the classes "water walk," 10 bowls of water, a small sponge for each student, and continent name tags (optional).

Here's what to do...

1. Take out cold, metal spoons and blow on them. Ask students to explain how this relates to what they drew in the previous activity "One Big Cycle" (**condensation**). Have students lick a finger then wave it in the air. When the saliva "disappears" ask students to relate this to what happens during the water cycle (**evaporation**). Using a hot plate as a heat source, boil water in a glass pan, if available. Place ice in a glass bowl. Hold the bowl over the boiling water so it "catches" the escaping water vapor that is evaporating from the boiling water. As the water condenses on the sides of the cold bowl, the students will see precipitation begin to fall in the form of droplets of water cascading back down to the pot. Ask students how this relates to the water cycle (**precipitation**).
2. Remind students of "Water Walk" when they made the posters showing where water can be found. Tell students that they will be using those posters in this lesson as they pretend to be clouds, traveling all around the world, collecting evaporating water. Use the overhead projector or board to show a list of the different scenes shown on the posters from "Water Walk". Give each student a card, or recycled paper, to write ten water sources they would like to visit as they gather their water. While students are deciding which locations to visit, begin placing the posters around the classroom. Beside each poster, place a bowl of water and a plastic spoon.
3. Once the posters, water, and spoons have been placed around the classroom, give each student a sponge cut in the shape of a cloud. Explain that as clouds, they must collect the "evaporating water" from each water source they visit around the room by adding one spoon of water to their sponge at each station.
4. Once the posters and bowls of water have been placed around the classroom, instruct students to begin visiting the water sources they have written on their cards. Remind students to take one spoon of water at each station and carefully pour it onto their sponge. Explain that they are simulating what happens as water condenses (changes from a gas to a liquid) and becomes clouds. Tell students that as the sponge becomes saturated with the condensed water, and starts dripping, each student should decide on which continent or water source they would like to "precipitate". (Students will squeeze water back into one of the bowls to make precipitation.)
5. Continue this water cycle simulation activity until all students make it through their ten pre-selected water stations. Reinforce the idea that it takes heat for evaporation to occur and cool air, high in the atmosphere, for condensation and precipitation to occur.
6. Ask students to pretend that, "You have just washed your hands before going to lunch. Thinking about what you have learned about the water cycle, what are at least three different ways you can think of to dry your hands?" Also, have them explain what happens to the water that was on their hands.

NOTE:

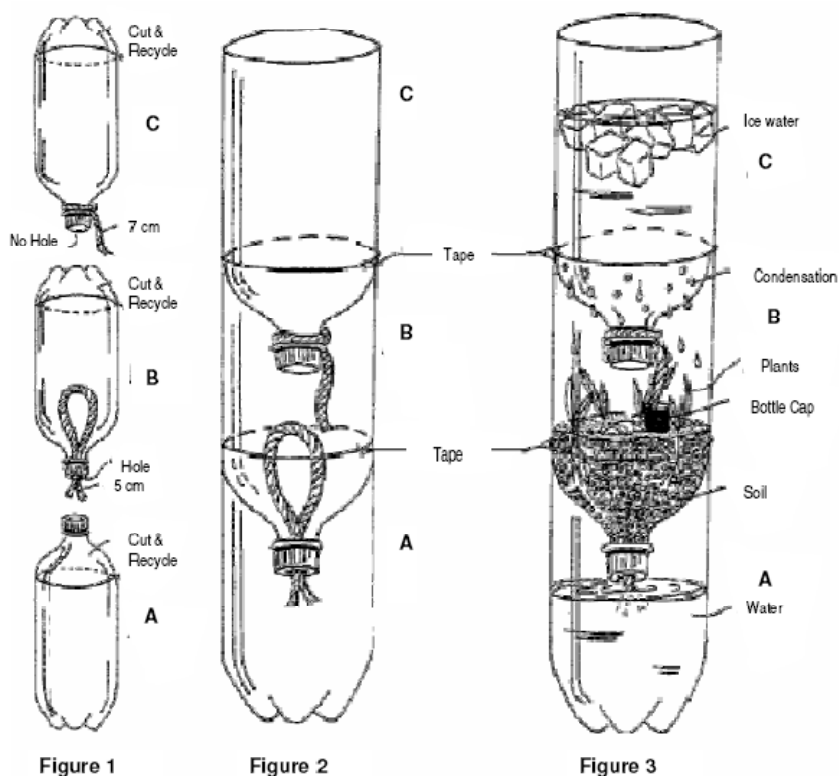
To make this lesson more geography based, the posters showing the water sources may be organized on different "continents" around the classroom. This will reinforce the idea that evaporated water collects and travels all around the world, rather than making a circular motion over one area, as most water cycle diagrams show.

Classroom Activity: Rain Maker

In this activity, students will learn about the different stages of the hydrologic cycle. They will also observe each stage taking place and understand how each stage is interdependent of the others. It will take approximately 30 minutes to set up and discuss this activity. You should check back a few times throughout the day to record observations and continue discussion. You'll need 3 two-liter plastic bottles, 1 hair dryer, 2 feet of heavy cotton string (wick), tape, scissors, 1 sharp knife, 5 – 7 cups of water, ice, 1 nail, hammer, plant seeds (Chinese cabbage or radish's work well), and copies of the *Worksheet: Understanding the Water Cycle*. The worksheet is included on the following page.

Here's what to do...

- Prior to beginning this lesson with students, collect and prepare the plastic 2-liter bottles. (See next page for specific directions on how to prepare the bottles.) If plans are to only do one classroom demonstration model, only three 2-liter bottles will be needed. If plans are to have each student make a personal model to take home, then multiply the basic materials listed above by the number of students.
- Use a hair dryer on the lowest heat setting to soften the glue on the soda bottle labels so that they may be removed. Mark the bottles A, B, and C to tell them apart. Cut each bottle as shown in **Figure 1**
- Poke a hole in the bottle cap on Bottle B. Insert a string/wick loop so that about 3 inches hang down from the cap. Place the cap with no hole on Bottle C. Tie the remaining 7 inches of string around the neck of Bottle C, so that it hangs down about 3 inches. (See **Figure 1** for illustration.)
- Assemble the bottles as in **Figure 2**: Bottle C fits into Bottle B, and Bottle B fits into Bottle A. Thoroughly wet both wicks. This will bring a constant source of water from a reservoir to the plant roots. Add about two cups (16 ounces) of water to Bottle A. This reservoir supplies water to the model's cycle. Fill Bottle B with enough pre-moistened soil to cover the top of the string loop. The string should not be pressed against the side of the bottle.
- Plant two or three seeds of a fast-growing plant, such as Chinese cabbage, carrot or radish inside the well of Bottle B. (Remove Bottle C from the other bottles when not performing a demonstration, so the air circulates, and the seeds can sprout and grow.) NOTE: You may opt to place small green plants in this soil instead of planting seeds, if you like.

**Hydrologic Cycle**

Classroom Activity: Rain Maker (Continued)

- Place a plastic bottle cap on top of the soil in center of Bottle B, so that the wick from Bottle C drops into it. The bottle cap represents a water body and will collect water when the model “rains”. NOTE: Taking digital pictures of this demonstration will allow students to observe the process over and over again.
 - Before demonstrating the hydrologic cycle the second time, or in the future, add a drop of food coloring inside the bottle cap. Place the bottle cap on the soil so it can catch the “precipitation”, once the ice is added to the top bottle. When the rain fills the cap, the food coloring will have tainted the water. Explain that this is how pollution can contaminate water bodies.
 - Use the classroom hydrologic cycle model to demonstrate the needs of plants. Insert bottle C, or place plastic wrap on top to create a terrarium, which is an example of a closed system, similar to the system we operate within on Earth.
- Pass out copies of the *Worksheet: Understanding the Water Cycle* and have students answer the questions.

Bonus!

Fill Bottle C with ice water. Tape the seams between bottles to seal them (**Figure 3**). Observe the bottle cap after a few hours. The model’s condensation should have filled the cap with water.



The Journey of Water Drop

Worksheet: Understanding the Water Cycle **Name:** _____

1. What are the four parts of the water cycle? _____, _____, _____, _____

2. Predict what you think will happen in this experiment? _____

3. Record your observations below:

<u>Time:</u>	<u>Observations (changes):</u>

4. What provides the energy that powers the water cycle? _____

5. Explain how the water cycle works (use at least 5 vocab words in your explanation)

What do you see?



Classroom Activity: Recycled Water

In this activity, students will learn that all life uses the same water because it is recycled. They will also learn that the earth does not create new water; it simply cycles the same water through the hydrologic cycle. It will take approximately 20 minutes to complete this activity. You'll need 1 glass of water for each student and copies of the *Handout: Recycled*.

1. Ask the question: Does the Earth provide new water? Explain the concept that the water we have on earth is all we have. This is why it's so important to protect our water. *For example:*
 - 💧 We can't go to space to get more water
 - 💧 All life uses the same water because it's recycled
 - 💧 The water from the faucet could have been drunk before by a U.S. President, Daniel Boone, Native Americans, or even Dinosaurs.
2. Pass out a cup of water to each student; don't drink yet!
3. Read the poem, "Recycled", to class or have the students read sections. The poem is located on the *Handout: Recycled* on the following page.
4. Now they can drink their water!
5. Discuss how water is recycled through the global water cycle.
6. Discuss how the students recycle their water at school and at home. Use the following questions to direct discussions:
 - 💧 Where did the water they just drank come from? (McCreary County is served by the McCreary County Water District (MCWD). The MCWD draws their water from the Big South Fork River and the Laurel Creek Reservoir. It is treated at Water Treatment Plants, and then piped to its customers all around the county.)
 - 💧 When it leaves your body, where will it go? How does it re-enter the water cycle?
 - 💧 How many times does the water re-enter the cycle?



Handout: Recycled

Recycled

By Verne N Rockcastle



The glass of water you're about to drink
Deserves a second thought, I think
For Avogadro*, oceans, and those you follow
Are all involved in every swallow.



The molecules of water in a single glass
In number, at least five times, outclass
The glasses of water in stream and sea,
Or wherever else that water can be.



The water in you is between and betwixt,
And having traversed is thoroughly mixed,
So someone quenching a future thirst
Could easily drink what you drank first!



The water you are about to taste
No doubt represents a bit of the waste
From prehistoric beasts and bird ---
A notion you may find absurd.



The fountain spraying in the park
Could well spout bits from Joan of Arc,
Or Adam, Eve, and all their kin;



You'd be surprised where your drink has been!
Just think! The water you cannot retain
Will someday hence return as rain,
Or be beheld as the purest dew.
Though long ago it passed through you!

*Amedeo Avogadro (1776-1856) was an Italian scientist



The Journey of Water Drop

Classroom Activity: Water Cycle Adventure

Cast:

Sun (who is also the narrator)	Ocean water drop 2	River water 1
Snowflake	Stream water 1	Water in drain pipe
Reservoir water 1	Tap water 1	Cloud
Ocean water drop 1	Water vapor 1	River water 2
Ice 1	Stream water 2	Sewage processing plant
Glacier ice 2	Tap water 2	
Reservoir water 2	Water vapor 2	

The Sun: Our story starts in the ocean. We are watching two drops of water.

Ocean water drop 1: It's getting hot here in the ocean - I don't think I can swim any more. I'm feeling light and airy! I think the Sun's doing it to me.

The Sun: I can't help it - I'm hot and full of energy. That's what I do, and I do it so well, don't I?

Ocean water drop 2: Yes, you do, but I think I'm getting dizzy and there isn't even a whirlpool here. I'm feeling so strange! I think I'll just float for a while - no more swimming for me.

Ocean water drop 1: Uh oh! You're not floating in the water anymore, you're floating in the air - you're not a drop of water either - you're water vapor now.

Water Vapor 1: What's water vapor?

Water Vapor 2: It's water, but it's a gas. You've evaporated and turned into a gas - and so have I. Let's fly up high!

Water Vapor 1: I feel like joining the others and forming a crowd.

Water Vapor 2: I think you mean a cloud, not a crowd. Okay, let's condense.

Water Vapor 1: What does that mean?

Water Vapor 2: Condensing means that we'll change back into a liquid (water, of course). Then we'll be part of a cloud.

Cloud: Okay, now we're a beautiful, fluffy cloud. Let's fly over the land and watch the goats. Take a look at those beautiful mountains! But now I'm feeling heavy and cold. I think I'm going to snow!

Snowflake 1: Hey, what's got six arms and there's nothing exactly like it in the whole world?

Snowflake 2: Me - I'm so special. You, too, of course. We're both snowflakes. Hey, where are you going now?

Snowflake 1: I can't stop falling - you're falling too. But where are we going?

Snowflake 2: Down.

Snowflake 1: Thanks - I knew that. It looks like we're taking a trip to the mountains. I hope you know how to ski.

Snowflake 2: Well, it looks like we're stuck on a glacier - I wonder why they're called rivers of Ice.

Glacier Ice 1: I'm getting crushed here. Now I'm ice - this is NOT my favorite part of the water cycle.

Glacier Ice 2: We're only moving at about one foot a year. This is going to be sooooo boring it's a long way to the bottom.

Glacier Ice 1: You'd better get used to it, we're stuck on this glacier for a while.

The Sun: A long, long, long time later, two very bored drops of water emerge from the bottom of the glacier. I haven't been much help to them lately.

Stream water 1: Wow, I've finally melted!

Classroom Activity: Water Cycle Adventure (Continued)

Stream water 2: Me too - I'm free at last. What a change, we were practically standing still, and now we're shooting the rapids.

Stream water 1: Watch out for that rock! And that waterfall!

Stream water 2: Ouch! I've had enough of this. Can we go home now?

Stream water 1: We don't have a home. At least we're out of the mountains. The water's getting deeper. What's going on here?

River water 1: You can slow down now - we're in a river. And we're getting warmer.

River water 2: I like this. Not too fast and not too slow.

River water 1: Let's go down this side stream - it looks clear and clean.

Reservoir water 1: Okay. We're in a reservoir now - we'll be flowing through huge pipes soon - I've been here before.

Reservoir water 2: Here they are. It's dark and spooky in these pipes. How do we get out of here?

Reservoir water 1: Just go with the flow.

Tapwater 1: There's a light at the end of the tap - we're in a sink. Eew - that kid is brushing her teeth!

Tapwater 2: I hope she doesn't drink us - it's really weird when that happens.

Tapwater 2: Whew, that was a close call. Looks like we're whirlpooling down the drain. Hold your nose!

Water in drain pipe: More dark pipes - but these pipes are really smelly. We must be in the sewer under the city. Boy do I need to take a bath.

Sewage processing plant: I heard that. I'm a sewage processing plant. You've come to the right place. I'm so amazing that I can even give bath water a bath! Now you're all filtered and clean just take that pipe to the sea.

Ocean water drop 1: We're finally back in the ocean. You know, I've done this trip a million times, and every time it's different.

Ocean water drop 2: I was well water in Washington once.

Ocean water drop 1: I was in a typhoon in Thailand twice.

Ocean water drop 2: I was rain in Rwanda.

Ocean water drop 1: I was snow in Siberia.

Ocean water drop 2: We've all been snow in Siberia. But I was in a puddle in Pakistan.

Ocean water drop 1: I was in a lake in Louisiana.

Ocean water drop 2: I was in a swamp in Switzerland.

Ocean water drop 1: There are no swamps in Switzerland. But a long, long time ago, I was sleet that fell on the snout of a T. rex.

Ocean water drop 2: Showoff. I rained on a plain in Spain, and I seeped through the soil and went into a cave, and was groundwater for 500 years.

Ocean water drop 1: Boooooorrrring.

Sun: Hi there! It's me again. Did you miss me? I know you did.

Ocean water drop 1: I feel so hot and dizzy!

Ocean water drop 2: Oh no, it's starting all over again!

Ocean water drop 1: I wonder where we'll go this time?