ITQ ARTS AND SCIENCE INTEGRATION
GRADE 5
THEATRE AND EARTH SCIENCE

Help! I have the vapors, the water vapors!
Earth Science: Water Planet, Investigation 3 and 5
Lesson #3

CONTENT STANDARDS

Theatre Grade 5

2.2 Demonstrate the use of blocking (stage areas, levels, and actor's position, such as full front, quarter, profile, and full back) in dramatizations.

2.3 Collaborate as an actor, director, scriptwriter or technical artist in creating formal or informal theatrical performances.

5.1 Use theatrical skills to dramatize events and concepts from other curriculum areas, such as reenacting the signing of the Declaration of Independence in history-social science.

Earth Science Grade 5

ES3b Students know when liquid water evaporates, it turns into water vapor in the air and can reappear as a liquid when cooled or as a solid if cooled below the freezing point of water.

ES3c Students know water vapor in the air moves from one place to another and can form fog or clouds, which are tiny droplets of water or ice, and can fall to Earth as rain, hail, sleet, or snow.

ESSENTIAL QUESTIONS *(Questions students might ask about the topic)*

- What do actors and directors do?
- What is water vapor and how does it change and move?
- What are the stages in the water cycle?
- How do actors and directors use a script?
- How do I know stage right from stage left?
- How do I write stage directions in a script?
- What happens to liquid water as the temperature changes?
- How does water move from place to place on Earth and in the atmosphere?

OBJECTIVES & STUDENT OUTCOMES *(Students will be able to…..)*

- create character and convey setting through gesture, posture and vocal expression.
- use voice to create mood.
- articulate how water can change from liquid to a vapor and back again.
- write, identify and execute stage direction cues in a script.

ASSESSMENT (*Various strategies to evaluate effectiveness of instruction and student learning)*

- **Feedback for Teacher**
  - Scene Observation
  - Video of Classwork
  - Audio Tape
  - Readers Theatre Script with Student Stage Directions Marked
- **Feedback for Student**
  - Student/Teacher responses
  - Video of Classwork
  - Audio Tape

WORDS TO KNOW

Theatre Grade 5

- **Actor:** A person, male or female, who performs a role in a play or an entertainment.
- **Actor's Position:** The orientation of the actor to the audience. (e.g., full back, full front, right profile)
- **Audience:** People who watch, listen and respond to live theatre.
- **Blocking:** The planning and working out of the movements of actors on stage.
- **Center Stage:** The center of the acting area.
- **Character:** The personality of part an actor recreates.
- **Characterization:** Portrayal of a personality through thought, action, dialogue, costuming, etc.
- **Director:** The person who oversees the entire process of staging a production.
- **Downstage:** The stage area toward the audience.
- **Improvisation:** A spontaneous style of theatre in which scenes are made up on the spot.
- **Reader's Theatre:** A performance where actors read a script rather than working from memory.
- **Rehearsal:** Practice sessions where actors and technicians prepare for public performance.
- **Run-Through:** A rehearsal moving from start to finish without stopping for corrections.
- **Stage Left:** The left side of the stage from the perspective of the actor facing the audience.
- **Stage Right:** The right side of the stage from the perspective of the actor facing the audience.

Earth Science Grade 5

- **Cloud:** Tiny droplets of water, usually high in the air.
- **Cold Front:** The contact zone where a cold air mass overtakes a mass of warm, moist air.
- **Condensation:** The process by which water vapor changes into liquid water, usually on a surface.
- **Evaporate:** To change from liquid to gas.
- **Evaporation:** The process by which a liquid becomes a gas.
- **Fog:** Water droplets that condense from the air close to the ground.
- **Frost:** Frozen condensation.
- **Hurricane:** A severe tropical storm or moving wind system that rotates around an eye or center of low atmospheric pressure.
- **Ice:** The solid form of water.
- **Snow:** Precipitation in the form of ice crystals grouped together as snowflakes.
- **Thunderstorm:** Severe weather that results from cold air flowing under a warm, humid air mass over the land.
- **Tornado:** A rapidly rotating column of air that extends from a thunderstorm to the ground. Wind speeds can reach more than 400 kilometers per hour (250 mph) in a tornado.
- **Variable**:
- **Warm Front:** The contact zone where a warm air mass overtakes a cold air mass.
- **Water Cycle:** The global water-recycling system. Water evaporates from Earth's surface, goes into the atmosphere and condenses. It returns to Earth's surface as precipitation in a new location.
- **Water Vapor:** Water in its gas form.
- **Wind:** Air in motion.

MATERIALS

- "Readers' Theater Script: Water Cycle Adventure" (included)
- "Stage Directions Template" (included)
- Science notebooks (1 per student)

RESOURCES

- VAPA Core Learnings: http://www.sandi.net/2045107201145156 53/site/default.asp
- VAPA Grade 3 and 5 Theatre Lessons: http://tinyurl.com/theatrelessons
- *FOSS Kit California Edition Grade 5,* "Water Planet," Investigations 3 and 5
- Online improvisation lesson videos: http://www.ehow.com/video_4949233_improv-yes-lets.html
- The benefits of improv in addressing multiple intelligences web article. http://www.improvwarrior.com/benefits.html
- *Theatre Games for the Classroom*, Viola Spolin (available on Google Books at http://tinyurl.com/spolinbook)
- *Unscripted Learning, Using Improv Activites Across the K – 8 Curriculum,* Carrie Lobman and

Matthew Lundquist
- *Structuring Drama Work, A Handbook of Available Forms in Theatre and Drama,* Jonothan Neelands and Tony Goode
- *An Usborne Introduction Acting and Theatre,* C. Evans and L. Smith
- Aaron Shepard's Readers Theatre Website: http://www.aaronshep.com/
- www.EnchantedLearning.com
- www.RosalindFlynn.com
- Video Camera

PREPARATION

- Refer to Theatre – Grade 3, Lesson 4 if necessary. (http://tinyurl.com/theatrelessons)
- Lead **actor's** warm up from Day One.

WARM UP *(Engage students, access prior learning, review, hook or activity to focus the student for learning)*

(5 minutes)

- Project "Stage Directions Template" for students to see. Explain to students that stage directions are from the point of view of the **actor** facing the **audience**.
- Establish the classroom, work area, **rehearsal** space as your stage.
- Say:
- If you have ever been to a theatre you may have noticed the stage is flat and the audience sits in seats that are raked or in a slant, however stages were not always like that. During a period of theatre history it was cheaper to have
- Divide the class into groups as the previous lesson.
- Tell students they will be playing a game to help them remember the nine **stage directions**.
- The game begins with one group of students standing **center stage.**
- **Director**/Teacher calls out stage directions, and the group quickly moves to that designated area of the stage only if the leader prefaces the directive with "Simon Says".
- If a student moves **Stage Right** (SR) when they're supposed to be **Stage Left** (SL), they must return to the **audience**. Discourage **audience** members from helping the **actors** on stage [e.g. pointing to a direction or giving any cues.]
- If a player moves to an area of the stage without hearing "Simon Says" they also must return to the **audience**.
- Play the game until there are one or two **actors** left on stage. Switch casts.
- Note: This game allows the teacher to monitor **audience** behavior to reinforce that **audience** is just as important as performance.

MODELING *(Presentation of new material, demonstration of the process, direct instruction)*

(20 minutes)

- Remind students that last lesson they were introduced to working with a script and starting the rehearsal process with a read-through. Today they are going to take the next step in the rehearsal process.
- Introduce the term **blocking**.
- Tell students that they are going to take the script from the previous lesson and "put it on its feet" with stage movement.
- Remind students that blocking is used to tell the story while making sure the audience can see and hear the actors. Actors need to face the audience and speak in an appropriately loud voice.
- Have scene 1 cast come to the stage and sit in a semi-circle up stage and stretches from stage left to stage right.
- Project "**Readers' Theatre** Script: **Water Cycle** Adventure" for students to see.
- Distribute scripts to the **actors.**

- Tell students that they are going to learn how to write **blocking** in their script.
- Have scene 1 cast begin to read the play. As a new character speaks have them stand (↑) then cross from their position to **center stage**. You may wish to make a small "x" with masking tape on the floor so that the students know where to stand. In TV and film this is called "hitting your mark."
- On the projected script write ↑XDC when a character speaks and is now the center of focus. XDC means "cross down center." When the character is done with their part they cross back to their original position and sit (↓). Depending on where that is you will write on the projected script XSR↓ (cross **stage right** and sit) or XSL↓ (cross **stage left** and sit).
- Have students copy these directions into their scripts.
  - Work only through the first page of the script.

GUIDED PRACTICE *(Application of knowledge, problem solving, corrective feedback)*
(20 minutes)

- Assign each cast for scenes 1, 2 and 3 a place to rehearse.
- Have them start in the same positions as demonstrated in the modeling.
- Put a small "x" on the ground where the **actors** must "hit their mark."
- As each new character speaks they cross to **center stage**. Students write the cross (↑XDC) in their script next to the corresponding line. After their scene is over the **actor** crosses back to their original position and write the cross in their script.
- Have students write in the stage directions for the full play.

DEBRIEF & REFLECT *(Identify problems encountered, ask and answer questions, discuss solutions and learning that took place. Did students meet outcomes?)*
(5 minutes)

- Gather class back together and explore what they learned about stage directions.
- *Ask:*
  - *What is difficult about stage directions?*
  - *What problems did you have in completing this task?*
  - *How did you solve those problems?*
  - *Now that we have had a **read through** and **blocked** the play, what do you think our next steps would be?*
  - *How would we go about accomplishing those next steps?*

Readers' Theater Script: Water Cycle Adventure

This 10-minute readers' theater play traces water in its never-ending cycle. Students read the script as they perform the play. Neither props nor scenery is necessary. There are 19 characters, but in a small class, students can easily play more than one part. The students could even write their own water cycle adventure.

Cast:		
Sun (3 students) Ocean water drop 1 Ocean water drop 2 Ocean water drop 3 Ocean water drop 4 Water vapor 1 Water vapor 2 Cloud	 Snowflake 1 Snowflake 2 Glacier ice 1 Glacier ice 2 Stream water 1 Stream water 2	River water 1 River water 2 Reservoir water 1 Reservoir water 2 Tap water 1 Tap water 2 Water in drain pipe (2 students) Sewage processing plant (2 students)

Scene 1

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 soooooo 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.

Scene 2

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!

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.

Scene 3

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 3: I was in a typhoon in Thailand twice.

Ocean water drop 4: 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 3: I was in a lake in Louisiana.

Ocean water drop 4: 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 3: Boooorrrrrring.

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 4: I wonder where we'll go this time?

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*The script has been modified to suit a larger class size.

Stage Directions Template

Back Wall of the Performance Space/Stage

Upstage Right (UR)	Upstage Center (UC)	Upstage Left (UL)
Stage Right (SR)	Center Stage (C)	Stage Left (SL)
Downstage Right (DR)	Downstage Center (C)	Downstage Left (DL)

The Audience