

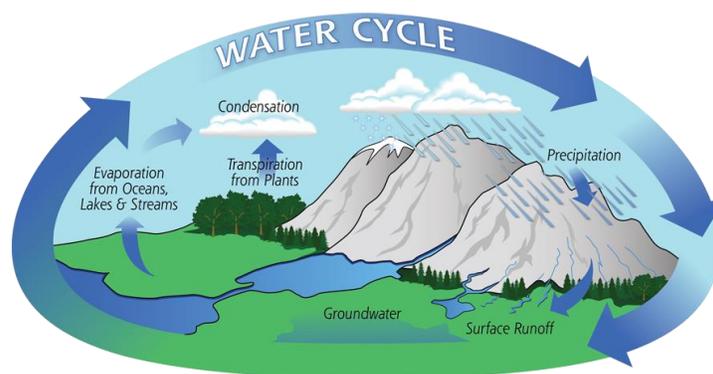
Source of image: <https://buggyandbuddy.com/childrens-books-about-the-water-cycle/>

Diving into The Life of Water

A Two-Week Thematic Unit/Integrated Learning Segment for Third Grade

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ECED 4450 Spring 2018



Source of image: <https://pmm.nasa.gov/education/water-cycle>

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Introduction and Rationale (a)

This integrated learning segment is...

A 2-week unit plan that will focus on water and the cycle of water on Earth. Children will explore water and learn the cycle of how it is formed. By the end of the unit, children will be able to explain the cycle of water on earth both orally and also by illustrating. The first activity will engage children by raising curiosity about water in the environment.

This unit is **inquiry-based** because I have built in room for children to discover information for themselves about how water behaves and is created, and what are the different states it can be found in. For example, I do not tell them the complete journey water may take, I give children the chance to explore for themselves by conducting a variety of learning experiences. Another way I have built in inquiry is by allowing the students to explore given materials throughout the unit without much teacher instruction involved. I have followed the 5Es framework in my unit design in order to make space for inquiry and to ensure that my plans include opportunities for deep learning in science activities. I give my students the opportunity to become **engaged** through by creating interest with the first few activities that may raise curiosity and questions for the rest of the unit. Students will get the opportunity to **explore** various learning experience that allow them to investigate and solve problems. Students will be given many different opportunities throughout the unit to **explain** their thinking in a variety of forms: whole-group discussions, small-group discussions, reflective writing. Students will be given the opportunity to **elaborate** on investigations and tasks through

discussion and writing tasks. And lastly, student will be given the opportunity to **evaluate** their learning by reviewing and reflecting upon experiences in the classroom.

Standard/s Addressed, Goals, and Objectives for the Unit (b)

Standards addressed. The primary focal standard is for third grade from the TN-Academic Standards. The science standard falls within the Earth and Space section, which is involves children being able to “know the different forms of water and how they are connected to weather” by the end of third grade. *3.ESS2: Earth’s Systems 1) Explain the cycle of water on Earth.* Other standards addressed in this unit include:

3.LS4: Biological Change: Unity and Diversity 3) Explain how changes to an environment's biodiversity influence human resources

3.MD.A.2 Measure the mass of objects and liquid volume using standard units of grams (g), kilograms (kg), milliliters (ml), and liters (l). Estimate the mass of objects and liquid volume using benchmarks.

3.MD.B.3 Draw a scaled pictograph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled graphs.

3.W.TTP.3 Write narratives to develop real or imagined experiences or events using an effective technique, such as descriptive details and clear event sequences. a. Establish a situation by using a narrator, including characters, and organizing an event sequence that unfolds naturally. b. Use dialogue and/or descriptions of actions, thoughts, and feelings to develop experiences and events, or to show the response of characters to situations. c. Use temporal words and

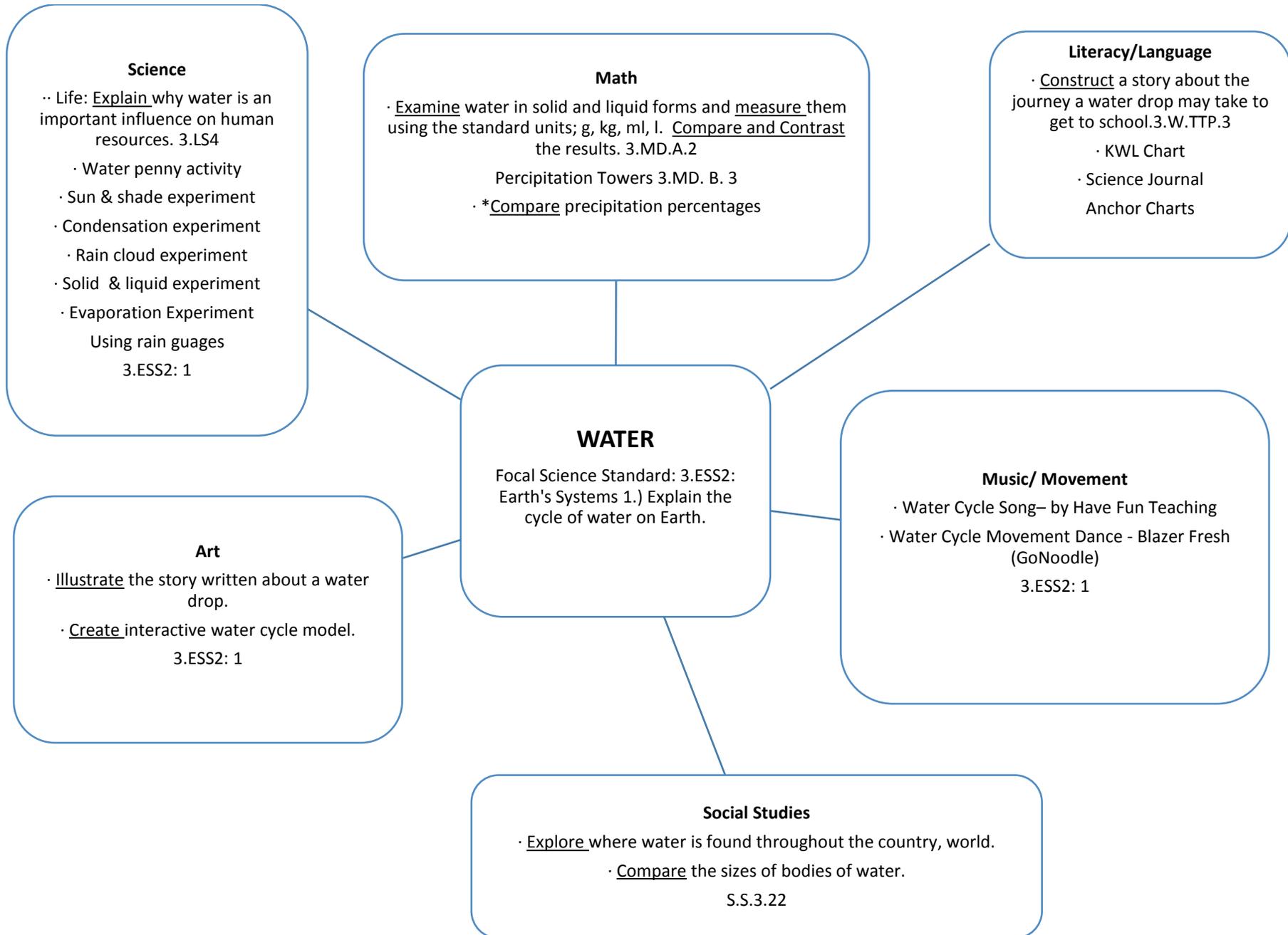
phrases to signal event order. d. Provide a sense of closure. e. Apply language standards addressed in the Foundational Literacy standards.

S.S. 3.22 Identify major physical features on a map (G, TN):

- Rivers – Colorado, Cumberland, Mississippi, Missouri, Ohio, Rio Grande, St. Lawrence, Tennessee
- Mountains – Alaska Range, Appalachian, Cascade, Rockies
- Bodies of Water – Arctic, Atlantic, Great Lakes, Great Salt Lake, Gulf of Mexico, Hudson Bay, Niagara Falls, Pacific
- Deserts – Death Valley, Great Basin
- Landforms – Grand Canyon, Caribbean Islands

Goals. The goals of this unit are for children to learn key vocabulary (e.g., water, evaporation, condensation, precipitation, gauges, hail, sleet, snow, rain) and to be able to explain the cycle of water on earth by the end of the unit.

A Curriculum Web (c)



Title and Description of Learning Experiences (d)

Overview

Below I describe the learning experiences over the 10 days of the unit. I open with an opportunity for students to engage in the big idea by an experiment that will set up the rest of the learning experiences throughout this water unit. Throughout the unit, I provide a variety of learning experiences across all content areas that are related to the main idea of the unit.

Students will engage and explore in various learning experiences that will support the overall ending goal of the unit, "*explaining the cycle of water on Earth*".

Calendar

Week 1 of 2

Schedule	Monday	Tuesday	Wednesday	Thursday	Friday
Arrival/Bell Work 7:45 am - 8:00 am	Question to answer: “Where can you find water on the Earth? What types of water is there?”		Question to answer: “What are the parts of the water cycle?”	Question to answer: “What is evaporation?”	
Welcome/Morning Meeting 8:00 am- 8:30 am		KWL Chart on Water Cycle			
ELA 8:30 am- 10:00 am	<i>A Drop of Water</i> by Walter Wick	<i>-A Drop Around the World</i> by Barbara McKinney	<i>The Snowflake: A Water Cycle Story</i> by Neil Waldman		
Writing 10:00 am- 11: 00am		-Write a story about the journey of a water drop			
Specials 11:15 am- 11:45 am					
Lunch 12:00 pm- 12:35 pm					
Whole Group Math/ Math Stations 12:45 pm- 1:45 pm					
Social Studies/Science 1:45 pm- 2:30 pm	Where is water on the Earth? Types of water.		Discussion of parts of the Water Cycle	Evaporation Exploration- Sun & Shade Experiment	Evaporation continued
Recess/ Free Time/ Departure 2:30 pm- 3:00 pm					

* Complete lesson plan

Calendar

Week 2 of 2

Schedule	Monday	Tuesday	Wednesday	Thursday	Friday
Arrival/Bell Work 7:45 am - 8:00 am	Question to answer: “What is condensation?”		Question to answer: “What is precipitation? How can it be measured?”		Journal: Illustrate the water cycle and label it
Welcome/Morning Meeting 8:00 am- 8:30 am	Water Cycle song & dance				Water Cycle song & dance
ELA 8:30 am- 10:00 am	Creation of interactive Water Cycle model		<i>Water Dance</i> by Thomas Locker		
Writing 10:00 am- 11: 00am			Write a Haiku poem	Foldable of the types of precipitation	
Specials 11:15 am- 11:45 am					
Lunch 12:00 pm- 12:35 pm					
Whole Group Math/ Math Stations 12:45 pm- 1:45 pm				Precipitation Towers or Measurements of rain (using rain gauges if applicable)	
Social Studies/Science 1:45 pm- 2:30 pm	Explore Condensation- Chamber investigation	Condensation investigation continued	-Explore Precipitation- Create cloud in a jar -Record findings of model in science journal	Precipitation continued- types of precipitation (hail, sleet, snow, rain)	-Examine interactive water cycle model, record in science journals -Act out water cycle
Recess/ Free Time/ Departure 2:30 pm- 3:00 pm					Complete KWL chart

* Complete lesson plan

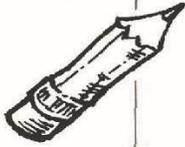
Titles and Descriptions

Week 1:

Day 1: Students will explore where water is found on earth and the different types of water there is. Students will begin the day by answering the bell work question “Where can you find water on the Earth? What types of water is there?” in their bell work journal. The students will read the story *A Drop of Water* by Walter Wick in their English language arts block. Later in the day during their science/social studies block, the students will discuss the different types of water that are found on Earth. They will gain an understanding that water is distributed across earth in salt, fresh and glacier form. The students will complete the water penny activity to demonstrate how much each water type takes up on Earth. (worksheet is from *The Water Cycle and the Polar Regions: Hands-On Science and Literacy - Water, Ice, and Snow*. (n.d.). Retrieved April 18, 2018, from <http://beyondpenguins.ehe.osu.edu/issue/water-ice-and-snow/the-water-cycle-and-the-polar-regions-hands-on-science-and-literacy>)

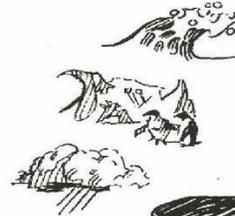
HOME ACTIVITY

Where is All the Water?



Today I learned that:

- 97% of Earth's water is found in the ocean
- 2% of Earth's water is found in glaciers
- 1% of Earth's water is freshwater



For Review:

Demonstrate these facts by doing the penny activity from class with your family members. (You will need 100 pennies.)



Fun Focus:

The following home activity will demonstrate the amounts of water we find on Earth.



Materials:

- 2-liter pop bottle
- measuring cup
- water
- 2 clear plastic cups

Procedure:

- 1 Fill a pop bottle with 2000 ml. (2-liters) of water. This represents all the water found on Earth.
- 2 Pour 40 ml (about 1/4 cup) from the 2-liter bottle into a cup and place it in the freezer. This represents the water on Earth contained in glaciers.
- 3 Pour 20 ml (about 2 tablespoons) from the 2-liter bottle into a cup to represent the fresh water on Earth.
- 4 The remaining water in the bottle represents the water in the oceans. Water in the ocean consists of 3.5% salt. To represent saltwater, add 68 ml (about 1/3 cup) to the remaining water in the 2-liter bottle.



Day 2: The students will begin their morning meeting by filling out a KWL chart about the water cycle. Students will write what they know about the water cycle and what they want to learn about the water cycle. The teacher will use the student's responses to guide his/her instruction throughout the unit. In the English language arts block, the students will read the book *A Drop Around the World* by Barbara McKinney. After this book has been read and discussed, the students will complete a writing activity. The students will create a story about the journey a water drop may take to get to a certain place on Earth. The students will decide where their water drop will go and how it may get there.

Day 3: The students will begin the day by answering the bell work question "What are the parts of the water cycle?" in their bell work journal. The students will read the book *The snowflake: A Water Cycle*

Story by Neil Waldman followed by a discussion of the text they read. Later in the day during the social studies/science block, the students will help the teacher complete an anchor chart on the water cycle. The anchor chart will include descriptions for each part of the water cycle.

Day 4: The students will explore evaporation. The students will begin the day by answering the bell work question “What is evaporation?” Later in the day during the social studies/science block, the students will go outside and conduct the sun & shade experiment. Students will go outside on the pavement to a sunny and shaded area. The students will pour a spot of water in each area of the pavement. Once they have poured their spot, they will draw a circle around it will chalk to mark the perimeter of the water spot. The students will this spot frequently documenting changes that has occurred throughout the time period in their science journal.

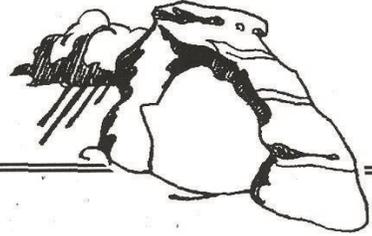
Day 5: The students will continue their exploration of evaporation. The students may visit the spots made on the pavement the previous day to see if any changes have occurred. There will be a whole group discussion about what they observed during this experiment.

Week Two:

Review of Previous Week: Review what we observed and learned about where water is on earth, the types of water, and evaporation.

Day 6: The students will begin the day by answering the bell work question “What is condensation?” During the morning meeting, the students will be introduced to a water cycle song and interactive dance to help remember the cycle in an easier way as they move along in the unit. During the English language arts block, the students will create and interactive water cycle model that can be displayed on the classroom windows for the rest of the week/unit. The students will do this with a plastic sandwich or quart sized baggie. The students will illustrate the water cycle on the baggie and also labeling each part drawn. The baggie will be slightly filled with water and hung up in a sunny window. The students will record their observations and changes seen throughout the rest of the unit in their science journal. Later in the day during the social studies/science block, the students will conduct the chamber investigation to explore condensation closer. (worksheet is from *The Water Cycle and the Polar Regions: Hands-On Science and Literacy - Water, Ice, and Snow*. (n.d.). Retrieved April 18, 2018, from <http://beyondpenguins.ehe.osu.edu/issue/water-ice-and-snow/the-water-cycle-and-the->

Condensation Chambers



Discussion Question:

Why does water collect on the bathroom mirror when someone takes a hot shower?



Neat Facts:

- **Condensation** of water vapor occurs when a mirror appears to fog up when someone takes a shower.
- **Condensation** also occurs when chilled car windows fog up on the inside.

Create your own condensation chamber by following the steps below.



Materials:

- 2 clear plastic cups
- tape
- 1 graduated cylinder
- water

Assembly Steps:

- Step 1: Write your name or group number on the cup.
- Step 2: Measure 20 ml (2 tbsp.) of water and add it to one cup.
- Step 3: Place the second cup upside down over the first cup as illustrated.
- Step 4: Use tape to connect the two cups.



Condensation Data Collection

Draw the chamber just after closing with tape:

Draw the chamber after 24 hours:

Draw the chamber after it has been sitting in a sunny location for 1-3 hours:



Findings

Explain what you think happened by answering the following questions. Include the following words in your discussion: temperature, evaporation, and condensation.

Is heat a factor in making the condensation chamber work? How?

How does the sun affect the chamber?

What do you think happens to the chamber at night?

If the temperature is warmer or colder on one side of the chamber than the other, what happens?

Day 7: The condensation exploration will be continued. Students will record any new findings in their science journal from the chambers investigation from the previous day. There will be a whole group discussion about the changes and findings found in this learning experiment.

Day 8: The students will begin the day by answering the bell work question “What is precipitation? How can it be measured?” During the English language arts block, students will read the book *Water Dance* by Thomas Locker. Following the reading and discussion of the book, the students will create their own Haiku poem during the writing block. Later in the day during the social studies/science block, the students will create a rain cloud in a jar. Students will demonstrate precipitation occurring using the materials food coloring, shaving cream, water and a clear cup. The students will record their experiment in their science journal. The experiment will be followed by a whole group discussion on what was observed through the activity.

Day 9: The precipitation exploration will be continued. The students will create a foldable that will explain the various types of precipitation that occurs (rain, sleet, snow, hail). During the math block, the students will either use rain gauges to measure the amount of rain fallen or they will make precipitation towers using connecting cubes (depends on the weather). If rain gauges are used, the students will collect and graph the measurements of rain that has been collected from various time lengths. If making precipitation towers, students will be given various precipitation data from different locations to graph on a number line. The students will complete a worksheet found on [nasa.com](https://pmm.nasa.gov/education/water-cycle) the complete the activity. Later in the day during the social studies/science block, students will use their foldable to discuss the different types of precipitation that may occur and why they occur. The teacher may create an anchor chart with the help of the students. (worksheet is from (n.d.). Retrieved April 18, 2018, from <https://pmm.nasa.gov/education/water-cycle>)

Name: _____ Date: _____ Period: _____

Precipitation Towers (Basic): Student Capture Sheet

Engage:

1. What do you know about precipitation? Do all places on Earth get the same amount and type? Why or why not?

Explore:

I am graphing the location: _____

2. Which towers (months) are the tallest (have the most precipitation)?
3. Which towers (months) are the shortest (have the least precipitation)?

4. What does the overall pattern look like? Are the towers all about the same height? Or is there a time of year that is clearly very rainy or very dry compared to the rest of the year?

Compare two different locations. My second location is _____

5. Do the towers for the two locations look the same or different? _____

6. Describe how they are the same or different. _____

7. Which location gets more rain for the whole year? ____

Explain:

8. As you look around the room at different towers and discuss all of the locations as a class, write down three observations.

Day 10: The students will begin by illustrating the water cycle in their journal for their daily bell work. The students will sing the water cycle song and dance to the interactive dance during the morning meeting. Later in the day during the social studies/science block, the students will thoroughly examine the interactive water cycle model that was made earlier in the week. The students will document their findings in their science journal. There will be whole group discussion on the changes discovered. During the block, the students will also act out the water cycle in groups using body movements/and/or props. To close the unit, the students will complete the KWL chart that was started at the beginning of the unit. The students will write about what they have learned throughout this unit investigation. The teacher may use the KWL chart as a form of assessment for this unit plan.

**if it is fairly rainy during this unit, have students compare precipitation percentages daily from newspaper.*

Two Complete Lesson Plans (e)

Complete Lesson Plan #1:

WATER UNIT LESSON PLAN DAY #2

Lesson Title: The Journey of a Water Drop

Grade/Level: 3rd

Date/Learning Experience #:

Curriculum Standards	Essential Question
<p><i>State Curriculum Standards – Underline your language/ vocabulary words</i></p> <p>3.W.TTP.3 Write narratives to develop real or imagined experiences or events using an effective technique, such as descriptive details and clear event sequences.</p> <p>a. Establish a situation by using a narrator, including characters, and organizing an event sequence that unfolds naturally.</p> <p>b. Use dialogue and/or descriptions of actions, thoughts, and feelings to develop experiences and events, or to show the response of characters to situations.</p> <p>c. Use temporal words and phrases to signal event order.</p> <p>d. Provide a sense of closure.</p> <p>e. Apply language standards addressed in the Foundational Literacy standards.</p>	<p><i>What question(s) or big idea(s) drive your instruction?</i></p> <p>How does water travel?</p>
<p>Lesson Objective(s) – Student Learning Outcome(s) for this learning experience</p>	
<p><i>Objectives use active verbs, are measurable (if applicable), and link to standards. Consider using Bloom’s Taxonomy or Webb’s Depth of Knowledge.</i></p> <p>TLW create a narrative story to describe the journey of a water drop based on the book <i>A Drop Around the World</i> by Barbra Mckinney</p>	
<p>Knowing Your Learners</p>	
<p><i>Describe pre-requisite skills students already know that will help them meet the lesson objective(s). What is your evidence that students need this/ these skills(s)? This may include pre-assessment data; student personal, cultural or community assets you have gathered and observations you have made concerning your students.</i></p> <p>Prior to this lesson, learners should know what water is and the idea that it travels throughout the environment.</p> <p>This has been assessed through prior discussion with the students.</p>	
<p>Assessment/Evaluation</p>	
<p><i>How will students demonstrate understanding of lesson objective(s)?</i></p>	<p>Assessment Modifications</p>

<p>Informal: <i>How will you monitor student progress towards lesson objectives as you are teaching? (formative assessment)</i></p> <p>During the whole group instruction, the teacher will stop frequently to make sure the students are gaining comprehension of the lesson. To do this, the teacher will assess student progress by thumbs up/sideways/down. This assessment will let the teacher know whether he/she needs to spend more time on a topic or if the class is understanding and is ready to move on. This assessment will determine instruction throughout the lesson.</p> <p>Thumbs up: Students understand information and feel ready to move on.</p> <p>Thumbs sideways: Students feel ok about the information presented. Still have questions.</p> <p>Thumbs down: Students do not understand the information. Do not feel ready to move on. Further instruction and explanation needed.</p> <p>Formal: <i>What evidence (formative and/ or summative) will you collect and how will you document student learning/ mastery of lesson objective(s)? A summative assessment is not needed for every lesson, however, it is required for every lesson submitted for CAEP data collection point (e.g., 3000 courses – ECED 3210, READ 3100, SPED 3300, PEXS xxxxx; 4000 courses – ECED 4680, CUI 4241, SPED 4710, PEXS xxxxx, ECED 4780, CUI 4391, SPED 4850, PEXS xxxxx).</i></p> <p>The teacher will collect the learners work samples following the lesson. The teacher will evaluate the work samples to determine the knowledge the learners may have about the topic of water.</p> <p>Academic Feedback: <i>How will you give academic feedback? How will your academic feedback promote student understanding of the learning objective(s) or state standard(s)?</i></p> <p>During the activity, the teacher will ask further questions to deepen student thinking.</p>	<p><i>What modifications will you make on assessments/ evaluations for students with diverse and/ or special needs (i.e. students with IEP or 504, struggling learners, advanced learners) and will these modifications be within/ for small groups or individuals?</i></p> <p>The teacher will modify assessments by providing more time during whole group instruction for struggling learners to ask and answer possible questions. Struggling learners may be provided more one-on-one help from the teacher or teacher assistant. The teacher will also modify assessments by abiding by the children’s IEPs.</p>
<p>Assessment Theory/Rationale: <i>I am administering/ giving/ collecting _____ because my students need _____. This is appropriate because _____. Provide citation (APA, 6th edition) for learning theory and/ or research.</i></p> <p>I am assessing students through the use of thumbs up/sideways/down throughout the instruction. This is appropriate because students are developing self-evaluation skills through the use of this assessment. I am also collecting work samples from the students because I need to assess the knowledge my students have on the topic to drive further instruction. This is appropriate because it helps my students develop needed critical thinking skills.</p> <p>Jalongo, M.R., & Isenberg, J. P (2012). <i>Exploring your role in early childhood education</i> (4thed.). Upper Saddle River, NJ: Pearson</p>	
<p>Academic Language Demands</p>	
<p>Function and Product of the Lesson <i>The function is the verb, usually a Bloom’s verb (e.g., analyze, interpret, recount), that guides the language objective of the lesson. This includes a product that students will either write, say, present, or do that involves Academic Language (e.g. essay, present, recount).</i></p> <p>Narrative Story</p>	

Academic Vocabulary *What specialized terms and phrases do students need to understand and use to complete the function?*

Terms:

Sequence

Descriptive details

Content Vocabulary *What are the key vocabulary words, symbols, or sounds in this lesson?*

Terms:

Water

Sequence

Events

Descriptive Details

Syntax and/or Discourse (not Early Childhood)

Syntax *What are the specific ways or conventions for organizing symbols (e.g., linear, horizontal, words (grammar), phrases, or graphics that students need to know to be able to do what you are asking?*

Discourse *What are the specific ways in which members of a discipline (e.g., scientist, historian, etc.) talk, write, and communicate knowledge that students need to know to be able to do what you are asking (e.g., essays, presentations, performance, journal, debate, historical account, signal)?*

Language Supports *What general instruction will you provide to help students in the whole class (e.g., word walls, learning partners, guided notes) learn the discourse/syntax? What focused instruction (e.g., Venn diagrams, graphic organizers, outlines, student examples, sentence stems) will you provide to help students learn the discourse/syntax (can be completed in small groups)? What individual instruction that targets the needs of an individual student(s) will you provide to help that student(s) learn the discourse/syntax? What opportunities will you provide for students to practice language/vocabulary and develop fluency? What tools (e.g., EQ or vocabulary board, Venn diagram, anchor chart, vocabulary cards, graphic organizer, peer support, sentence stems, pictures, table, chart, thinking map, modeling, sort, song, body movements, games) will you use to help students meet the language demands?*

General Supports – *Strategies used to support the whole class and may be used to support more than one demand (e.g., Venn diagram, learning partners, word wall, anchor chart, vocabulary cards, graphic organizer, sentence stems, pictures, table, chart, thinking map, modeling, sort, song, body movements, games). These strategies can cross disciplines and be used in a variety of lessons.*

General supports used for this lesson include vocabulary cards.

Targeted Supports – *Strategies that focus toward a specific language demand (e.g., Venn diagrams, graphic organizers, outlines, examples, sentence stems). These may be addressed during small groups. These can be general supports that are modified for specific students or groups of students.*

Targeted supports for this lesson include examples.

Individual Supports – *Supports used to target the specific needs of an individual student (e.g., ELL, student with autism, struggling reader or writer, student with significant language delays). These students may or may not have been formally identified and may or may not have an IEP or 504 plan.*

I will meet the needs of individual students by following the child's individualized IEP and by pairing them with another student who may be more mastery in this lesson or giving them one-on-one assistance with the teacher assistant.

Language Theory/Rationale: *I am _____ because my students need _____. This is appropriate because _____. Provide citation (APA, 6th edition) for learning theory and/or research.*

I am providing different strategies for children to learn by because my students learn differently. I am providing opportunities for students to work together which in turn will support language development, even in ELL students. This is appropriate because all children learn differently and need a variety of supports.

Van de Walle, J. A., Lovin, L. H., Karp, K. S., & Bay-Williams, J. M. (2014). *Teaching student-centered mathematics: Developmentally appropriate instruction for grades pre-k-2* (2nd ed.). Boston, MA: Pearson.

Instruction – When designing your instruction, consider when you will implement formal and informal assessments/evaluations, when you will provide feedback, and when you will teach academic language. Therefore, this section should include aspects written above.

Lesson Part	Description of Activities and Instruction (Teacher Does)	Description of Activities and Instruction (Students Do)	Meeting Individual & Group Needs /Learning Styles <i>Plans instruction to meet the needs of individual students. Adaptations are tied to learning objectives. Specific individual or group learning includes requirements in IEP or 504 plans.</i>
<p>Set/Motivator: <i>Restate and address your Essential Question. How do you engage student interest in the content of the lesson? How does this relate to previous learning? Use knowledge of students' academic, social, and cultural characteristics.</i></p>	<ul style="list-style-type: none"> • The teacher will begin the lesson by review the story previously read <i>A Drop Around the World</i> by Barbara McKinney. • The teacher will proceed in stating the goals and objectives for the lesson. 	<ul style="list-style-type: none"> • The students will sit around the teacher, listening to the book being read. 	<ul style="list-style-type: none"> • Depending on individual IEP and 504 plan requirements, the teacher may allow students more time to transition.
<p>Instructional Procedures/Learning Tasks: <i>Provide specific step-by-step details of lesson content aligned with objectives, utilizing a variety of teaching strategies.</i></p>	<ol style="list-style-type: none"> 1. The teacher will begin by introducing the activity to the students. “We are going to writing about the journey our own water drops make take to get to a certain place.” 2. The teacher will ask the students, “When writing a narrative story, what should we include in our story 	<ol style="list-style-type: none"> 1. The students will listen to the teacher introduce the activity. 2. The students will answer the questions asked by the teacher. 	<ul style="list-style-type: none"> • The teacher will follow all IEP and 504 plan requirements to fit the needs of all students. • The students may be given extra time to respond to questions asked by the teacher.

	<p>to make it more detailed?”</p> <ol style="list-style-type: none"> 3. The teacher will explain to students that they will need loose leaf notebook paper and a pencil for this activity. 4. The teacher will then tell the students “I want you to create a story about a rain drop and its journey to a place on earth. You will decide where your rain drop can go, it can be anywhere. Please use descriptive words to describe thoughts and feelings your rain drop may have, along with key details in the story.” 5. Before they begin the activity, the teacher will assess students’ comprehension of the instruction by thumbs up/sideways/down. 6. The teacher will then release the students to write. 	<ol style="list-style-type: none"> 3. The students will listen to the teacher explain what materials they will need. 4. The students will listen as the teacher gives them instructions for the activity. 5. The students will answer how they feel about their understanding of the new material so far. 6. The students will work independently. 7. Students may share the story they created. 	<ul style="list-style-type: none"> • One-on-one assistance or “buddies” may be available to students who may need extra support.
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	<p>7. Depending on the time available after the activity, students may share a brief summary of their story to their classmates.</p>		
<p>Questions and/or activities for higher order thinking: <i>These are open-ended and cannot be answered by yes or no. These can be asked at various points throughout the lesson and guide rather than direct student thinking.</i></p>	<ul style="list-style-type: none"> • “What key details will include in your story?” • “Based on what you know, how would you explain the water cycle?” • “What is the turning point of your story?” 		<ul style="list-style-type: none"> • The students will be allowed extra time to think through questions asked by the teacher.
<p>Closure: <i>Makes clear connections to real-world situations and requires students to reflect on and apply their learning through verbal or written expression.</i></p>	<ul style="list-style-type: none"> • “Turn to a table partner and share one thing you have learned when doing this activity.” • The teacher will have the students restate the learning objectives that were covered in the lesson today (with guidance and support). 	<ul style="list-style-type: none"> • The students will turn to a partner and discuss with each other one thing they learned today. 	<ul style="list-style-type: none"> • The students will be allowed extra time to think through questions asked by the teacher.
<p>Material/Resources/Technology: <i>What do you need for this lesson? Identify the specific materials, resources and instructional technologies that you will use. How will you model these technologies to engage students and add value to and improve their learning?</i></p> <p><u>Printed Materials:</u> N/A</p> <p><u>Technology:</u> N/A</p> <p><u>Other Materials:</u> <i>A Drop Around the World</i> by Barbara McKinney, lose leaf paper, pencils</p> <p>Co-Teaching Strategies Used: <i>(highlight and explain all that apply): One Teach, One Observe; One Teach, One Assist; Station Teaching; Parallel Teaching; Supplemental Teaching; Alternative (Differentiated); Team Teaching</i></p>			

The co-teaching strategy that will be used in this lesson will be one teach, one assist. The head teacher will do the main instruction, while the assistant teacher may assist struggling learners in completing the task.

Instruction Theory/Rationale: I am _____ because my students need _____. This is appropriate because _____. Provide citation (APA, 6th edition) for learning theory and/or research.

I am providing a lesson rich in critical thinking and problem-solving. This is appropriate because students can develop these skills through writing,

Morrow, L. M. (2012). *Literacy development in the early years: Helping children read and write* (8th ed.). Boston: Pearson.

Meeting Individual & Group Needs Theory/Rationale: I am _____ because my students need _____. This is appropriate because _____. Provide citation (APA, 6th edition) for learning theory and/or research.

I am providing many different opportunities for children to learn because my students need different approaches to learning. This is appropriate because I am adapting my instruction to fit the needs of all my learners.

Jalongo, M.R., & Isenberg, J. P (2012). *Exploring your role in early childhood education* (4thed.). Upper Saddle River, NJ: Pearson

Management/Safety Issues

Management Issues: Explanation of processes and/or procedures, transitions from one activity to another, strategies for gaining attention, motivating students to engage in the lesson and focus on learning (e.g. work boards, posted procedures, modeling, positive feedback, redirection).

Management issues to consider for this lesson are keeping the students focus on learning through the use of positive feedback and redirection by the teacher.

Safety Issues: Are there any safety issues that need to be considered when teaching this lesson (e.g., outdoor activities, lab experiments, equipment use)? Expectations are explicitly outlined and are included as part of the instructional process.

Safety issues to consider for this lesson are modeling the correct way to complete the activity.

References

Van de Walle, J. A., Lovin, L. H., Karp, K. S., & Bay-Williams, J. M. (2014). *Teaching student-centered mathematics: Developmentally appropriate instruction for grades pre-k-2* (2nd ed.). Boston, MA: Pearson.

Jalongo, M.R., & Isenberg, J. P (2012). *Exploring your role in early childhood education* (4thed.). Upper Saddle River, NJ: Pearson.

Morrow, L. M. (2012). *Literacy development in the early years: Helping children read and write* (8th ed.). Boston: Pearson.

Complete Lesson Plan #2:

WATER UNIT LESSON PLAN DAY #8

Lesson Title: Precipitation in a Jar

Grade/Level: 3rd

Date/Learning Experience #:

Curriculum Standards		Essential Question
<p><i>State Curriculum Standards – Underline your language/vocabulary words</i></p> <p>3.ESS2: Earth’s Systems 1) Explain the cycle of water on Earth.</p>		<p><i>What question(s) or big idea(s) drive your instruction?</i></p> <p>How does rain occur?</p>
Lesson Objective(s) – Student Learning Outcome(s) for this learning experience		
<p><i>Objectives use active verbs, are measurable (if applicable), and link to standards. Consider using Bloom’s Taxonomy or Webb’s Depth of Knowledge.</i></p> <p>TLW explore how precipitation occurs in a rain cloud through an experiment.</p>		
Knowing Your Learners		
<p><i>Describe pre-requisite skills students already know that will help them meet the lesson objective(s). What is your evidence that students need this/ these skills(s)? This may include pre-assessment data; student personal, cultural or community assets you have gathered and observations you have made concerning your students.</i></p> <p>Prior to this lesson, learners should know the basic concepts of the water cycle. This has been assessed through prior discussion and learning experiences with the students.</p>		
Assessment/Evaluation		
<p><i>How will students demonstrate understanding of lesson objective(s)?</i></p> <p>Informal: <i>How will you monitor student progress towards lesson objectives as you are teaching? (formative assessment)</i></p> <p>During the whole group instruction, the teacher will stop frequently to make sure the students are gaining comprehension of the lesson. To do this, the teacher will assess student progress by thumbs up/sideways/down. This assessment will let the teacher know whether he/she needs to spend more time on a topic or if the class is understanding and is ready to move on. This assessment will determine instruction throughout the lesson.</p> <p>Thumbs up: Students understand information and feel ready to move on.</p> <p>Thumbs sideways: Students feel ok about the information presented. Still have questions.</p> <p>Thumbs down: Students do not understand the information. Do not feel ready to move on. Further instruction and explanation needed.</p> <p>Formal: <i>What evidence (formative and/ or summative) will you collect and how will you document student learning/ mastery of lesson objective(s)? A summative assessment is not needed for every lesson, however, it is required for every lesson submitted for CAEP data collection point (e.g., 3000 courses – ECED 3210, READ 3100, SPED 3300, PEXS xxxxx; 4000 courses – ECED 4680, CUI 4241, SPED 4710, PEXS xxxxx, ECED 4780, CUI 4391, SPED 4850, PEXS xxxxx).</i></p>		<p>Assessment Modifications <i>What modifications will you make on assessments/ evaluations for students with diverse and/ or special needs (i.e. students with IEP or 504, struggling learners, advanced learners) and will these modifications be within/ for small groups or individuals?</i></p> <p>The teacher will modify assessments by providing more time during whole group instruction for struggling learners to ask and answer possible questions. Struggling learners may be provided more one-on-one help from the teacher or teacher assistant. The teacher will also modify assessments by abiding by the children’s IEPs.</p>

The teacher will ask students to write a reflective piece on their conducted experiment at the end of the lesson. The teacher will evaluate the reflective pieces to determine the knowledge the learners may have gained through the experiment.

Academic Feedback: *How will you give academic feedback? How will your academic feedback promote student understanding of the learning objective(s) or state standard(s)?*

During the activity, the teacher will ask further questions to deepen student thinking.

Assessment Theory/Rationale: *I am administering/giving/collecting _____ because my students need _____. This is appropriate because _____. Provide citation (APA, 6th edition) for learning theory and/or research.*

I am assessing students through the use of thumbs up/sideways/down throughout the instruction. This is appropriate because students are developing self-evaluation skills through the use of this assessment. I am also collecting reflective pieces from the students because I need to assess the knowledge my students have on the topic to drive further instruction. This is appropriate because it helps my students develop needed critical thinking skills.

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Academic Language Demands

Function and Product of the Lesson *The function is the verb, usually a Bloom's verb (e.g., analyze, interpret, recount), that guides the language objective of the lesson. This includes a product that students will either write, say, present, or do that involves Academic Language (e.g. essay, present, recount).*

Conduct

Academic Vocabulary *What specialized terms and phrases do students need to understand and use to complete the function?*

Terms:

Experiment

Conduct

Content Vocabulary *What are the key vocabulary words, symbols, or sounds in this lesson?*

Terms:

Precipitation

Syntax and/or Discourse (not Early Childhood)

Syntax *What are the specific ways or conventions for organizing symbols (e.g., linear, horizontal, words (grammar), phrases, or graphics that students need to know to be able to do what you are asking?*

Discourse *What are the specific ways in which members of a discipline (e.g., scientist, historian, etc.) talk, write, and communicate knowledge that students need to know to be able to do what you are asking (e.g., essays, presentations, performance, journal, debate, historical account, signal)?*

Language Supports *What general instruction will you provide to help students in the whole class (e.g., word walls, learning partners, guided notes) learn the discourse/syntax? What focused instruction (e.g., Venn diagrams, graphic organizers, outlines, student examples, sentence stems) will you provide to help students learn the discourse/syntax (can be completed in small groups)? What individual instruction that targets the needs of an individual student(s) will you provide to help that student(s) learn the discourse/syntax? What opportunities will you provide for students to practice language/vocabulary and develop fluency? What tools (e.g., EQ or vocabulary board, Venn diagram, anchor chart, vocabulary cards, graphic organizer, peer support, sentence stems, pictures, table, chart, thinking map, modeling, sort, song, body movements, games) will you use to help students meet the language demands?*

General Supports – Strategies used to support the whole class and may be used to support more than one demand (e.g., Venn diagram, learning partners, word wall, anchor chart, vocabulary cards, graphic organizer, sentence stems, pictures, table, chart, thinking map, modeling, sort, song, body movements, games). These strategies can cross disciplines and be used in a variety of lessons.

General supports used for this lesson include modeling and learning partners.

Targeted Supports – Strategies that focus toward a specific language demand (e.g., Venn diagrams, graphic organizers, outlines, examples, sentence stems). These may be addressed during small groups. These can be general supports that are modified for specific students or groups of students.

Targeted supports for this lesson include groups of learning partners.

Individual Supports – Supports used to target the specific needs of an individual student (e.g., ELL, student with autism, struggling reader or writer, student with significant language delays). These students may or may not have been formally identified and may or may not have an IEP or 504 plan.

I will meet the needs of individual students by following the child’s individualized IEP and by pairing them with another student who may be more mastery in this lesson or giving them one-on-one assistance with the teacher assistant.

Language Theory/Rationale: I am _____ because my students need _____. This is appropriate because _____. Provide citation (APA, 6th edition) for learning theory and/or research.

I am providing different strategies for children to learn by because my students learn differently. I am providing opportunities for students to work together which in turn will support language development, even in ELL students. This is appropriate because all children learn differently and need a variety of supports.

Van de Walle, J. A., Lovin, L. H., Karp, K. S., & Bay-Williams, J. M. (2014). *Teaching student-centered mathematics: Developmentally appropriate instruction for grades pre-k-2* (2nd ed.). Boston, MA: Pearson.

Instruction – When designing your instruction, consider when you will implement formal and informal assessments/evaluations, when you will provide feedback, and when you will teach academic language. Therefore, this section should include aspects written above.

Lesson Part	Description of Activities and Instruction (Teacher Does)	Description of Activities and Instruction (Students Do)	Meeting Individual & Group Needs /Learning Styles <i>Plans instruction to meet the needs of individual students. Adaptations are tied to learning objectives. Specific individual or group learning includes requirements in IEP or 504 plans.</i>
<p>Set/Motivator: <i>Restate and address your Essential Question. How do you engage student interest in the content of the lesson? How does this relate to previous learning? Use knowledge of students’ academic, social, and cultural characteristics.</i></p>	<ul style="list-style-type: none"> • The teacher will begin the lesson by asking the students “How does a cloud produce rain?” • The teacher will proceed in stating the goals and objectives for the lesson. 	<ul style="list-style-type: none"> • The students will answer questions the teacher asks. 	<ul style="list-style-type: none"> • Depending on individual IEP and 504 plan requirements, the teacher may allow students more time to transition.

<p>Instructional Procedures/Learning Tasks: <i>Provide specific step-by-step details of lesson content aligned with objectives, utilizing a variety of teaching strategies.</i></p>	<ol style="list-style-type: none"> 8. The teacher will begin by presenting the materials that will be used for the activity. (1 clear cup, shaving cream, food coloring) 9. The teacher will ask the students, “How may we use these materials to demonstrate a cloud raining?” 10. The teacher will explain to students that the shaving cream represents a cloud, the food coloring represents the rain droplets, and the clear cup represents the air/atmosphere. 11. Before they begin the activity, the teacher will assess students’ comprehension of the material representations by thumbs up/sideways/down. 12. The teacher will then release the students to create their rain cloud. 	<ol style="list-style-type: none"> 8. The students will listen to the teacher present the materials used for the activity. 9. The students will answer the questions asked by the teacher. 10. The students will listen to the teacher explain what materials represent. 11. The students will answer how they feel about their understanding of the new material so far. 12. The students will work independently. 13. Students will write a reflective piece 	<ul style="list-style-type: none"> • The teacher will follow all IEP and 504 plan requirements to fit the needs of all students. • The students may be given extra time to respond to questions asked by the teacher. • One-on-one assistance or “buddies” may be available to students who may need extra support.
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	13. After the activity has concluded, the teacher will have the students write a reflective piece in their science journals that include illustrations of their experiment.	in their journals.	
Questions and/or activities for higher order thinking: <i>These are open-ended and cannot be answered by yes or no. These can be asked at various points throughout the lesson and guide rather than direct student thinking.</i>	<ul style="list-style-type: none"> • “Can you predict what may happen when you add the food coloring to your cloud?” • “What happened when you added the drops of food coloring to your cloud?” • “Why did the change in the cloud occur?” 		<ul style="list-style-type: none"> • The students will be allowed extra time to think through questions asked by the teacher.
Closure: <i>Makes clear connections to real-world situations and requires students to reflect on and apply their learning through verbal or written expression.</i>	<ul style="list-style-type: none"> • “Turn to a table partner and share one thing you have learned when doing this activity.” • The teacher will have the students restate the learning objectives that were covered in the lesson today (with guidance and support). 	<ul style="list-style-type: none"> • The students will turn to a partner and discuss with each other one thing they learned today. 	<ul style="list-style-type: none"> • The students will be allowed extra time to think through questions asked by the teacher.
<p>Material/Resources/Technology: <i>What do you need for this lesson? Identify the specific materials, resources and instructional technologies that you will use. How will you model these technologies to engage students and add value to and improve their learning?</i></p> <p>Printed Materials: N/A</p> <p>Technology: N/A</p> <p>Other Materials: Clear cups, shaving cream, water, food coloring, pencil, science journals</p>			

Co-Teaching Strategies Used: (highlight and explain all that apply): One Teach, One Observe; **One Teach, One Assist**; Station Teaching; Parallel Teaching; Supplemental Teaching; Alternative (Differentiated); Team Teaching

The co-teaching strategy that will be used in this lesson will be one teach, one assist. The lead teacher will do the main instruction, while the assistant teacher may assist struggling learners in completing the task.

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Management issues to consider for this lesson are keeping the students focus on learning through the use of positive feedback and redirection by the teacher.

Safety Issues: Are there any safety issues that need to be considered when teaching this lesson (e.g., outdoor activities, lab experiments, equipment use)? Expectations are explicitly outlined and are included as part of the instructional process.

Safety issues to consider for this lesson are modeling the correct way to use materials.

References

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Morrow, L. M. (2012). *Literacy development in the early years: Helping children read and write* (8th ed.). Boston: Pearson.

Unit Evaluation Plan (f)

Formative

There will be a variety of different formative assessments throughout this integrated unit.

Formative assessments include thumbs up-down-side ways, reflections in journals, question of the day in journals, exit slips, think-pair-share, and photo documentation of learning experiences. These assessments will help drive instruction for the whole unit.

Summative

The summative assessments for this unit will be conducted upon completion of the integrated unit. These assessments include a unit test and also completion of the KWL chart started at the beginning of the unit.

A Letter to Parents (g)

Dear Parents,

Over the next two weeks, we will be exploring water and earth and space science. During this unit, your child will be exploring the water cycle, focusing on each part of the cycle. When developing this unit, I strive to create experiences for your student to explore that are both hands-on and student directed. Your student will dive deep into the world of water, by exploring throughout all content areas.

As always, I would ask for your participation and involvement as we dive into this unit. Over the next two weeks, take the opportunity to discuss with your child what you know about water and how it is a vital resource for all species across the world. If it happens to rain during this unit, discuss with your child the journey a water droplet may take to the point of precipitation. Your child will be more engaged in the learning taking place in the classroom if there is some learning with you at home.

If you have any ideas or resources you think would be a great asset to this unit, please let me know. I would love to incorporate your thoughts and interests into this unit. As always, if you have any questions or concerns please contact me, I would be happy to hear from you. You can reach me by phone at 423-000-1111 or by email at ms.channing@education.net. I am also available during my planning period daily from 11:15 am- 11:45 am and also after pick up beginning at 3:30 pm.

Thank you so much for your participation in this unit.

Your Child's Teacher

-Ms. Channing

List of References (h)

Teachers

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Families

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Children

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<https://www.natgeokids.com/uk/discover/science/nature/water-cycle/#!/register>

List of Resources Used in the Unit (i)

Materials and supplies

- 100 pennies per group
- 2-liter bottles
- Measuring cups
- Clear plastic cups
- Chalk
- Graduated cylinders
- Tape
- Access to water
- Shaving cream
- Food coloring
- Construction paper
- Markers
- Snap cubes
- Rain gauges
- Sandwich or quart sized baggies

Print and non-print

- *A Drop of Water* by Walter Wick
- *A Drop Around the World* by Barbra McKinney
- *The Snowflake: A Water Cycle Story* by Neil Waldman
- *Water Dance* by Thomas Locker

Technology resources

- GoNoodle- Water Cycle Movement Dance by Blazer Fresh
- YouTube- Water Cycle Song by Have Fun Teaching

Other

- Bell work Journal
- Science Journal
- Anchor Chart paper