

NYC Department of Education

GRADE 3

Supplemental Guiding Document: Curriculum Gaps

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OVERVIEW

This supplemental document is designed to provide guidance for New York City grade three teachers and science specialists as the New York City Department of Education moves from the New York City K-5 Science Scope and Sequence 2015-2016 (*based on the New York State Elementary/Intermediate Core Curriculum*) to the New York City Pre-K-8 Science Scope and Sequence 2018 (*based on the New York State P-12 Science Learning Standards*) and the implementation of the Amplify Science Curriculum in the 2018-2019 school year.

This supplemental document bridges the gap between what third grade students learn within the new Amplify Science curriculum and the Performance Expectations in the NYC PK-8 Science Scope and Sequence 2018. These lessons are designed to address the Performance Expectation: *3-ESS2-3 Plan and conduct an investigation to determine the connections between weather and water processes in Earth systems*. This is the only Performance Expectation that is not addressed in the Amplify Science curriculum for third grade.

Third grade teachers and science specialists teaching Amplify Science are encourage to implement these supplementary lessons between Amplify Science unit 3 and 4 (after Amplify Unit 3 is complete).

This supplemental document is broken down into two lessons. By the end of these two lessons students will be able to:

- identify and describe multiple bodies of water found on the Earth’s surface, including (but not limited to): oceans, lakes, rivers, ponds
- identify weather patterns that are related to the stages of the water cycle.

The recommended time frame is three days. Each lesson is approximately 45 minutes.

The Amplify Science curriculum in addition to this addendum will address and support instruction aligned with the Performance Expectations for third grade.

Performance Expectation

3-ESS2-3. Plan and conduct an investigation to determine the connections between weather and water processes in Earth systems.

[**Clarification Statement:** Emphasis should be on the processes that connect the water cycle and weather patterns.]

Key

Practices: Developing and Using Models; Obtaining, Evaluating, and Communicating Information

Disciplinary Core Ideas: ESS2.D: Weather and Climate

Crosscutting Concepts: Patterns; Cause and Effect

➤ **Recommended instruction between Amplify Science unit 3 and unit 4.**

Lesson Framework

Recommended time frame:
3 Days

(after Amplify Unit 3 is complete)

Lesson 1

Lesson Objective/Teaching Point: I can identify multiple types of bodies of water found on the Earth's surface.

Students will be able to identify multiple bodies of water found on the Earth's surface.

Amplify Modalities: Do, Talk, Write, Visualize

Vocabulary:

body of water, ocean, lake, river, pond, cartographer

Lesson 2
(2 days)

Lesson Objective/Teaching Point: I can identify and describe the stages of the water cycle.

Students will be able to identify weather patterns that are related to the stages of the water cycle.

Amplify Modalities: Read, Talk, Write, Do, Visualize

Vocabulary:

water, water cycle, water vapor, evaporation, evaporate, water storage (collection), condense, condensation, cloud, precipitation, rain, runoff, groundwater

Unit: 3 Lesson 1 of 2	Water on Earth	
<p>Unit-level 3-D Statement: Students will obtain, evaluate and communicate information <i>and</i> develop models to show that water exists in many different shapes and sizes on Earth, and flows from place to place through a process called the <i>water cycle</i> (patterns; cause and effect).</p> <p>Practices: Developing and Using Models; Obtaining, Evaluating, and Communicating Information</p> <p>Disciplinary Core Ideas: ESS2.D: Weather and Climate</p> <p>Crosscutting Concepts: Patterns; Cause and Effect</p>		
<p>Anchoring Phenomenon: Water can be found in different forms on earth.</p>		
<p>Investigation Question: What forms does water take on earth?</p>		
<p>Lesson Objective/Teaching Point: I can identify and describe multiple types of bodies of water found on the Earth’s surface.</p>	<p>Sequence: Amplify Modalities: Do, Talk, Write, Visualize</p>	
<p>Students will be able to identify and describe multiple bodies of water found on the Earth’s surface, including (but not limited to):</p> <ul style="list-style-type: none"> ● oceans ● lakes ● rivers ● ponds <p>Vocabulary:</p> <p>body of water ocean lake river pond cartographer</p>	<p>1. Engage: Students observe images of the Earth looking for patterns of blue and think about what they represent. They begin thinking about which bodies of water they can identify.</p> <p>2. TALK (Teach/Model): After students record initial noticings, display images of specific bodies of water: oceans, lakes, rivers, and ponds. Discuss what patterns they notice when observing each different body of water. Model how to identify and describe each body of water.</p> <p>3.DO (Group/Independent Work):</p>	

	<p>Students develop their own bird’s eye view maps of a made-up location of their choosing that must include at least the four major bodies of water, properly named and labeled.</p> <p>4. VISUALIZE (Wrap Up/Summary Discussion): Students showcase their maps on a gallery walk around the classroom, leaving peer feedback. Following the gallery walk, the whole class debriefs together with a focus on discussion questions.</p> <p>Formative Assessment:</p> <ul style="list-style-type: none"> • “On-the-Fly” observations throughout intro/wrap-up discussions and the map making activity. • Provide a rubric for the map (located at the end of document) • Review peer-to-peer feedback on sticky-notes.
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Standards Content:

Performance Expectations:
3-ESS2-3. Plan and conduct an investigation to determine the connections between weather and water processes in Earth systems.
 [Clarification Statement: Emphasis should be on the processes that connect the water cycle and weather patterns.]

SCIENCE AND ENGINEERING PRACTICES	DISCIPLINARY CORE IDEAS	CROSSCUTTING CONCEPTS
<p>Developing and Using Models Modeling in 3–5 builds on K–2 experiences and progresses to building</p>	<p>ESS2.D: Weather and Climate</p> <ul style="list-style-type: none"> • (NYSED) Earth’s processes continuously cycle 	<p>Patterns</p> <ul style="list-style-type: none"> • Patterns of change can be used to make predictions. <p>Cause and Effect</p>

<p>and revising simple models and using models to represent events and design solutions.</p> <ul style="list-style-type: none"> • Develop models to describe phenomena. <p>Obtaining, Evaluating, and Communicating Information</p> <p>Obtaining, evaluating, and communicating information in 3–5 builds on K–2 experiences and progresses to evaluating the merit and accuracy of ideas and methods.</p> <ul style="list-style-type: none"> • Obtain and combine information from books and other reliable media to explain phenomena. 	<p>water, contributing to weather and climate. (3-ESS2-3)</p>	<ul style="list-style-type: none"> • Cause and effect relationships are routinely identified, tested, and used to explain change. <p>Connections to Nature of Science</p> <p>Science is a Human Endeavor</p> <ul style="list-style-type: none"> • Science affects everyday life.
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Resources/Materials

- “Where do we find water on Earth?” slideshow
 - Images of the Earth (attached “Where do we find water on Earth” slideshow, Google Earth, globe, maps, etc.)
 - Lab Notebook/graph paper for designing maps]
 - Writing/art supplies
 - Vocabulary cards (word wall)
 - Vocabulary cards with definition and matching picture (word rings)
- Optional Resources (if available/accessible):*

- Google Earth <https://www.google.com/earth/>
- Globe
- Bodies of water word cards
- *The Water Bodies* Dr. Binocs video - <https://www.youtube.com/watch?v=bNWuQD7QHBc>

Introduce the Lesson/Motivate Students (5 Minutes)

(Project Slide 2) Students begin by observing an image of the Earth while thinking about what the different colored regions of Earth represent, specifically thinking about the blue regions. (For this part of the lesson, a slideshow with the images has been provided, however, feel free to use other resources: a globe, Google Earth, etc.)

(Project Slide 3) Students look for patterns or shapes in the Earth’s water, noting that different patterns or shapes represent “bodies of water” with similar properties that scientists have categorized and given names to. As they look for patterns, they should be thinking about other official names of bodies of water that they already know.

After a minute of independent thinking, students should turn and talk with their neighbors about what they notice. Once student discussion ends, they share-out as a whole group while teacher records student thinking (on white board, chart paper, or in slideshow). This opening activity can be used as an “on the fly” assessment to determine student prior knowledge/misconceptions.

Model/Teach (10 Minutes)

(slides 4 to 7) Following along with the “Where do we find bodies of water?” slideshow, the teacher displays images and discusses the properties of four main bodies of water: **oceans, lakes, ponds, and rivers**.

Tips for discussing information regarding bodies of water:

- *Show what each body of water looks like from a bird’s-eye-view perspective on a globe, a map, or using Google Maps in addition to the images on the slideshow.*
- *Tap into student’s prior knowledge by asking them to list real world examples of each body of water, including recognizing local bodies of water.*

Oceans: *The largest bodies of water on Earth. Although we do name the different regions of the ocean - Pacific, Atlantic, Indian, Arctic, and Southern/Antarctic/Australia - it is really just one large contiguous body of water that covers the majority of the Earth's surface known as the World Ocean. The ocean is entirely saltwater.*

Lakes and Ponds: *Lakes or ponds are fully surrounded by land. They are often fed by streams or rivers and their source can also be a spring from an aquifer (an underground source of water). Lakes, like rivers, can also supply drinking water to nearby towns and cities. Many lakes and ponds are freshwater bodies of water, but some of the largest lakes are saltwater, like the Great Salt Lake in Utah.*

Rivers: *A river is a flowing, moving stream of water. Usually a river feeds water into an ocean, lake, pond, or even another river. Rivers can vary in size and there is no hard definition or rule on how big a flow of water must be to be categorized as a river.*

Students discuss and share out what patterns they notice about the bodies of water. They are also encouraged to share out about other bodies of water they know that were not modeled. Record student responses on chart paper or whiteboard. (This part of the lesson works particularly well if the teacher has the ability to show images of extra student responses, such as by searching for them online and putting images up on a whiteboard using a projector).

(Slides 8-9) Teacher instructs the students that, as cartographers (map makers), they will be creating a bird's-eye-view map of a made up area of the world, focusing on the bodies of water found there.

Teacher models (using the graph paper on slide 9) how to create a bird's eye view map of an imaginary place. Reinforce the idea that even though their maps are coming from their imagination, they must be realistic and include, at least, the four bodies of water that were modeled. While modeling, review the properties of a bird's-eye-view map. [Note: Depending on students' prior knowledge of designing bird's-eye-view maps, you may have to teach more into the concept.]

Review map criteria listed on the rubric (Slide 10):

- Bird's-eye-view
- Must include: Oceans, Lakes, Ponds, Rivers
- Can include other bodies of water and landforms
- All bodies of water and landforms must be labeled with both proper names, i.e. *Hudson River*
- Map must be in true color (accurate color/Earth colors)

Group/Independent Work (20 Minutes)

Students work on designing their bird's-eye-view maps (on graph paper or in a student notebook). Remind students that they will be showcasing their maps in a "gallery walk" / "museum share" so their work needs to be "museum quality." You may also provide printed out copies of the slideshow as a resource for students at their workspaces.

(Slide 10) At the end of student work time, instruct students that they will engage in a "gallery walk" / "museum share." Just like at a museum, students need to make sure their maps are properly displayed with a title and the name of the map engineer and that workspaces are clean and organized.

Students then participate in the gallery walk, leaving feedback comments on sticky-notes on their peers' maps (You may need to teach into how to give proper feedback depending on how familiar your students are with the process).

At the end of the gallery walk students return to their own maps, read any feedback comments, and then come to the rug for a final debrief.

Assessment

Formative Assessment:

- "On-the-Fly" observations throughout intro/wrap-up discussions and the map making activity.
- Provide a rubric for the map (located at the end of document)
- Review peer-to-peer feedback on sticky-notes.

Wrap-Up/Summary Discussion (10 Minutes)

At the end of the gallery walk students then come to the rug for a final debrief.

Debrief Questions:

- *What patterns/themes did we notice about the maps in our gallery?*
- *What bodies of water (besides the main four) did students include in their maps?*

Investigation Preview Questions:

- Does the water in each body of water stay in that body of water? (For example: Does the water in a river, stay in a river?)
- If the water does move, then how does it move from one place to another?

Alternative Activities/Scaffolds:

For students who require additional support/ELL students consider:

- Students can view the *The Water Bodies* Dr. Binocs video - <https://www.youtube.com/watch?v=bNWuQD7QHBc>
- Students can use the “Plum Island Explorer: Land and Water” simulation: <https://pbslm-contrib.s3.amazonaws.com/WGBH/buac17/buac17-int-landwatergame/island-explorer-oct19-webglvideofix/index.html>
- Students can view the *Exploring Landforms and Bodies of Water For Kids* video- <https://curiosity.com/videos/exploring-landforms-and-bodies-of-water-for-kids-freeschool-free-school/>
- Landform and Bodies of Water memory game: <https://matchthememory.com/2flandforms>
- Display images of the different bodies of water
- Preview the bodies of water word cards (w/definitions and pictures)
- Provide students with “Accountable Talk” sentence frames for peer discussions
(I agree/disagree with you because ____ . I noticed that ____ .)

Additional Extension Options:

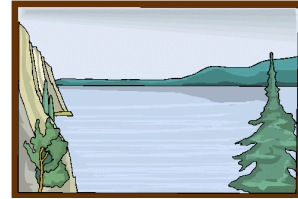
- Students can use Google Earth to do independent exploration research of water bodies around the world (optional focus on China and Nigeria which are case studies in the 3rd grade social studies standards)
- Create a 3-dimensional diorama for the bodies of water
- Students can use the “Earth’s Features” and “Earth Systems” simulations provided by Amplify within the Elementary Science Apps to extend their thinking.

“Bodies of Water Bird’s-Eye-View Map” Rubric

Map Features	4	3	2	1
Bodies of Water (and Landforms)	Student map includes other bodies of water and landforms beyond the four main bodies of water modeled during the lesson: oceans, lakes, ponds, rivers.	Student map includes the four bodies of water modeled during the lesson: oceans, lakes, ponds, rivers.	Student map does not include all four bodies of water modeled during the lesson: oceans, lakes, ponds, rivers.	Little to no evidence of water bodies included in the model. May contain errors/inaccurate information.
Map Making Characteristics	Map includes all characteristics from level three and can include these additional characteristics: <ul style="list-style-type: none"> ● Color-coding ● Key ● Directional compass ● Topographic Contour Lines 	Map contains the following characteristics: <ul style="list-style-type: none"> ● Bird’s-eye view ● Organized/readable ● Labeled ● True Color 	Map is missing one or more of the following characteristics: <ul style="list-style-type: none"> ● Bird’s-eye view ● Organized/readable ● Labeled ● True Color 	Map is missing most or all of the characteristics expected in the map. <ul style="list-style-type: none"> ● Bird’s-eye view ● Organized/readable ● Labeled ● True Color

Vocabulary Cards

body of water



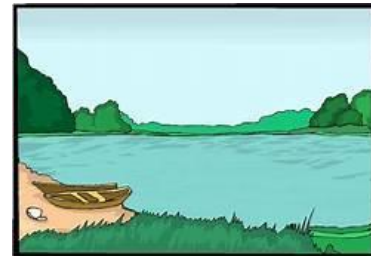
ocean



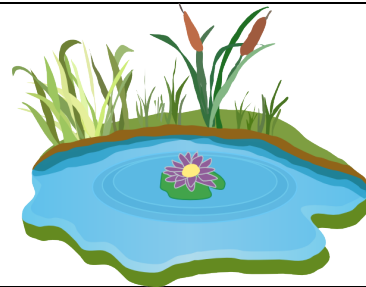
river



lake



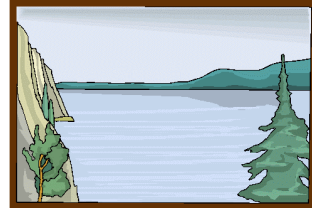
pond



cartographer



**masa de
agua**



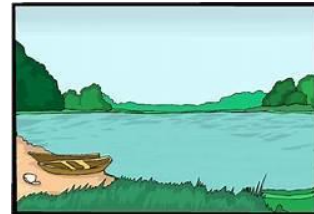
océano



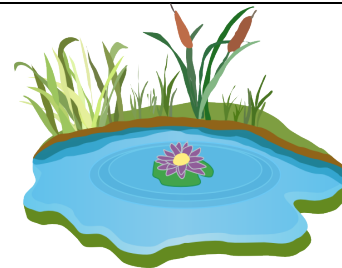
río



lago



estanque



cartógrafo



Unit: 3 Lesson 2 of 2	Water on Earth	
<p>Unit-level 3-D Statement: Students will obtain, evaluate and communicate information and develop models to show that water exists in many different shapes and sizes on Earth, and flows from place to place through a process called the water cycle. (patterns; cause and effect)</p> <p>Practices: Developing and Using Models; Obtaining, Evaluating, and Communicating Information</p> <p>Disciplinary Core Ideas: ESS2.D: Weather and Climate</p> <p>Crosscutting Concepts: Patterns; Cause and Effect</p>		
<p>Anchoring Phenomenon: Water collects and moves on Earth in different ways.</p>		
<p>Investigation Question: How does water move around the Earth?</p>		
<p>Lesson Objective/Teaching Point: I can identify and describe the stages of the water cycle.</p>	<p>Sequence: Amplify Modalities: Read, Talk, Write, Do, Visualize</p>	
<p>Students will be able to identify weather patterns that are related to the stages of the water cycle.</p> <p>Vocabulary:</p> <ul style="list-style-type: none"> water water cycle water vapor evaporation evaporate water storage (collection) condense condensation cloud precipitation rain runoff groundwater 	<p>Note: This lesson is intended to take 2 (or 3) class periods. Please see time notations below. The lesson slideshow is used throughout the entire lesson cycle.</p> <ol style="list-style-type: none"> 1. Engage: Using the lesson slideshow, show students Slide 2, which displays a cup with water and a picture of a puddle. Discuss student ideas. (Formative Assessment) 2. READ (Class Activity): Read “Weather: The Water Cycle” article. 3. VISUALIZE/TALK (Partner Activity): Each student makes a visual diagram/model of the water cycle. (Formative Assessment) 4. DO (Small Group Activity): All groups - water cycle investigation (Formative Assessment) 	

	<p>5. WRITE (Culminating Activity): Students write and explain the steps of the water cycle. (Summative Assessment)</p> <p>Summative Assessment:</p> <ul style="list-style-type: none"> Students write about the stages of the water cycle using output mode of choice.
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Standards Content:

Performance Expectations:
3-ESS2-3. Plan and conduct an investigation to determine the connections between weather and water processes in Earth systems.
 [Clarification Statement: Emphasis should be on the processes that connect the water cycle and weather patterns.]

SCIENCE AND ENGINEERING PRACTICES	DISCIPLINARY CORE IDEAS	CROSSCUTTING CONCEPTS
<p>Developing and Using Models Modeling in 3–5 builds on K–2 experiences and progresses to building and revising simple models and using models to represent events and design solutions.</p> <ul style="list-style-type: none"> Develop models to describe phenomena. <p>Obtaining, Evaluating, and Communicating Information Obtaining, evaluating, and communicating information in 3–5 builds on K–2 experiences and progresses to evaluating the merit and accuracy of ideas and methods.</p> <ul style="list-style-type: none"> Obtain and combine information from books and other 	<p>ESS2.D: Weather and Climate</p> <ul style="list-style-type: none"> (NYSED) Earth’s processes continuously cycle water, contributing to weather and climate. (3-ESS2-3) 	<p>Patterns</p> <ul style="list-style-type: none"> Patterns of change can be used to make predictions. <p>Cause and Effect</p> <ul style="list-style-type: none"> Cause and effect relationships are routinely identified, tested, and used to explain change. <p>-----</p> <p style="text-align: center;">-----</p> <p>Connections to Nature of Science</p> <p>Science is a Human Endeavor</p> <ul style="list-style-type: none"> Science affects everyday life.

reliable media to explain phenomena.

Resources/Materials

- Water Cycle Lesson slideshow
- ReadWorks Article: “Weather: The Water Cycle”
- Materials for water cycle model - cups, lids, plastic wrap
- Graphic organizer to use with and after article: Water Cycle Notebook Diagram and Explanation
- Water Cycle graphic organizer
- Directions for Water Cycle Foldable Mini Book
- Water Cycle Investigation sheet
- My Journey as A Water Drop writing template
- Devices or computers (laptops, tablets, iPads, etc.) to watch simulation
- Vocabulary cards

Introduce the Lesson/Motivate Students (5 Minutes)

Note: All of the components of these lessons are supported by a slideshow. Start the lesson by displaying Slide 1. This lesson follows a lesson about bodies of water found on Earth.

(Slide 2) Show student the visual of a puddle and cup of water. Ask students: where do you think the water came from? How old do you think the water is? Teacher charts responses. This opening activity can be used as an “on the fly” assessment to determine student prior knowledge/preconceptions.

Possible student responses may include but are not limited to:

- the water came from the sink
- the water is from a bottle
- the water is from rain

(Slide 3) *At the end of the discussion, clarify the following: The Earth's water is older than the Sun. The sun is 4.6 billion years old and predates all the other bodies in our solar system. Much of the water we swim in and drink here on Earth is even older.*

Model/Teach (10 Minutes)

(Slide 4) As a whole class, teacher reads the first and second paragraph of the article: “Weather: The Water Cycle.” Teacher highlights the sense making strategy of **visualizing** by thinking aloud. *Teacher explains that as the class is reading the article everyone is thinking about the words and using the skill of visualizing to hold onto, picture and make sense of the science they are reading about. Teacher explicitly models visualizing in the first part of the article.* After reading the two paragraphs, the teacher explains that the class will read the rest of the article in groups, while continuing to visualize.

Note: Group students according to needs. Students may continue to read in partnerships or in small groups.

Group Work/Independent Work (45 Minutes: recommended over 2 days)

Group Activity:

Day 1

After students have read the article, teacher conducts a class discussion about what students were able to picture and having students name the particular details they used to picture the science they read about. Teacher focuses the rest of the talk and prompts students to name the driving factor that causes the phase changes of water (solar energy).

Note: During the partner and independent activity, the teacher is collecting “on the fly” data about student comprehension and fluency with the topics being explored.

(Slide 5) After reading the article, partnered students verbally share their visualizations of the water cycle by referring to specific details from the article. Teacher asks students to locate bodies of water and stages of the water cycle.

(Slide 6) Teacher explains that students will quickly draft a drawing or summary that includes all of the steps/stages of the water cycle using appropriate vocabulary words. Partners then use their summaries and drawings to teach each other. Teacher hands out vocabulary cards at this time and prompts students to explore and explain their understanding of the water cycle while using the vocabulary cards.

Note: Students may sketch and write in science notebooks or use the attached Water Cycle Notebook Diagram and Explanation for this activity. Students may choose from a variety of output options which are inclusive of multiple entry points that can support diverse learning styles and needs: Water Cycle Notebook Diagram and Explanation, Water Cycle Foldable Mini Book (teacher template provided), Water Cycle graphic organizer, students can diagram and write as they see fit in their

science notebooks. (See attached resources.)

(Slide 7) Teacher explains the water cycle investigation. Students measure out specific amounts of water and place water in identical containers. One container will remain open, and the other will be covered with plastic wrap or a solid, transparent lid. Students will place both cups in the same (sunny or well lit) spot and leave for one to three days.

On day one of this lesson, students will make predictions (with reasoning such as prior experiences and/or information gathered from the article) about what will happen to the water in each cup over time. Students may use the attached lab sheet to record their predictions and results or can record directly in science notebooks.

Day 1 breakpoint

Day 2

(Slide 8) Teacher launches the lesson with a viewing of the water cycle videos embedded into the slideshow and vocabulary slides from the slideshow to remind students of all that they have learned about the water cycle.

Teacher explains that groups will revisit their investigation station to collect data and to compare their observations to their illustrations of the water cycle. Partner/small group discussion should center around which stages of the water cycle the students identify and should include an explanation about how they know each of those stages are accurate.

Note: Students can continue to observe their water cycles models over the next several days and add data to their observation charts to record further changes.

Independent Work/Culminating activity (Slide 9): After data collection, students demonstrate their understanding through a writing activity. Teacher explains that students will imagine that they are a raindrop and write about the raindrop's journey. Students are given a variety of output options and may choose how they write and show their learning. Output options include: comic strip format, illustrating first then writing or verbally sharing story, writing a friendly letter, and the use of prompts/sentence frames. (See attached resources)

(Slide 10) Teacher explains that writing must include answers to the following questions: Where did you come from? Where are you going? How will you get there? How long has your journey taken? How are you connected to the bodies of water that you learned about in the previous lesson?

Assessment

Formative Assessment

- Information gathered during introductory discussion
- During the reading of the article, listen in as students explain how they visualize the sections of the article
- After reading the article, notice how students explain or show their understanding of the different stages of the water cycle.

Summative Assessment

- Illustration of water cycle stages
- Discussion/explanation of understandings
- Culminating writing activity (using rubric attached to the mini unit overview)

Wrap-Up/Summary Discussion (15 Minutes) Pick one of the following options

- Have a whole-class discussion of their observations and their results.
- Story share “My Journey as a Water Drop” (can be partner, small group or whole class)

Alternative Activities/Scaffolds:**For students who require additional support/ELL students consider:**

- Play Dough Water Cycle model (see attached sheet for directions)
- Lego Water Cycle model (see attached sheet for directions)
- Students can use the water cycle simulation activity https://www3.epa.gov/safewater/kids/flash/flash_watercycle.html.
(Recommendation for teacher to prepare appropriate number of computers and/or iPads for students to access website.)
Students can use attached Simulation Station Sheet to guide their use of the simulation.
- Use the vocabulary cards to engage in a physical simulation of the water cycle as they move around and discuss what they are doing/how/why.

For students who require additional challenge consider:

- Students use their bird's eye view model from the prior lesson to develop an explanation about how their knowledge of the stages of the water cycle are connected to the bodies of water that are represented in the model. Students may turn their 2-D models into 3-D models that include representations of the stages of the water cycle.

Additional extension options:

- Create a theater tableau (see attached guidance) or dance about the journey of a water drop
- Water cycle song (see attached)
- Shaving cream cloud model of precipitation and Let it rain! graphic organizer (see attached)

Vocabulary Cards

water cycle



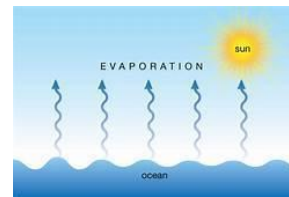
water



water vapor



evaporation



evaporate



condense



condensation



cloud



precipitation



rain



runoff



**water
storage
(collection)**



groundwater



Water Cycle Investigation Sheet

Name _____ Class _____ Date _____

Directions: Set up investigation (check each item as you complete):

_____ Use a graduated cylinder to measure _____ mL water into a cup.

_____ Measure the same amount of water into a second cup.

_____ When done, cover **one** cup with a transparent, fully sealed lid or a piece of plastic wrap.

_____ Place both containers in the same sunny location.

Make a prediction: From which sample do you think the water will evaporate first? Explain why you believe that this will happen.

I think that the water will evaporate first from the _____ cup because _____.

Observe your investigation and write a response.

Include: what happened to the water in the open cup? In the closed cup? Did the outcome match your prediction? Write a conclusion to explain.

Sentence Frames:

I discovered that the water _____ in the open cup. In the closed cup, the water _____.

My prediction was _____. The results _____.

I know that _____ because _____.

Name _____ Class _____ Date _____

Water Cycle Data Table

Observation Date and Time	Amount of Water in Cup with Cover (mL)	Amount of Water in Cup without Cover (mL)	Drawings of both cups

Conclusions

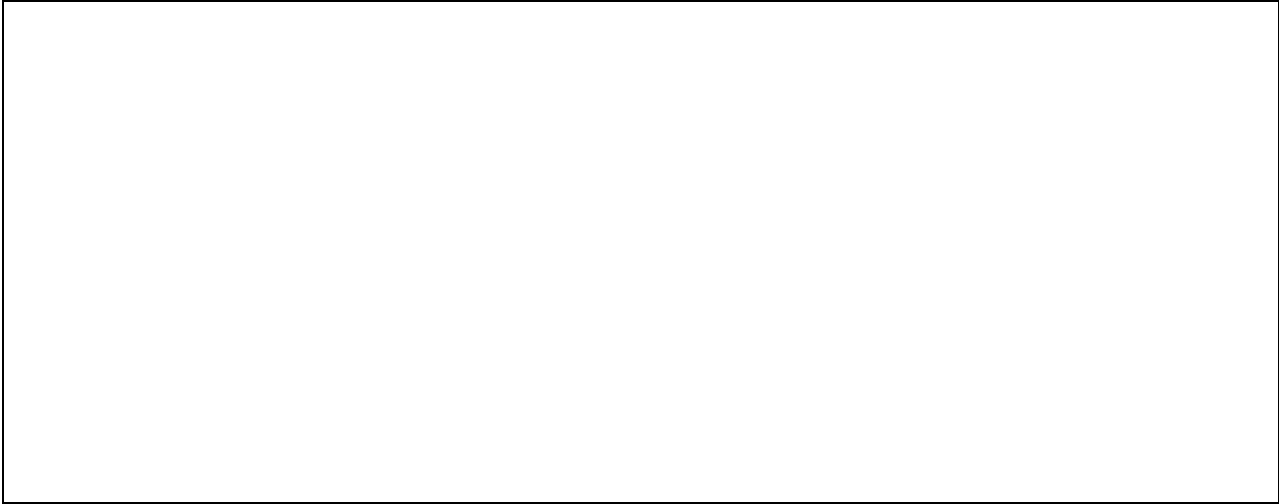
Based on the data and what I saw,

Water Cycle Science Vocabulary: evaporation, condensation, water cycle, collection/water storage

Name: _____ Class: _____ Date: _____

Directions: After reading “[Weather: The Water Cycle](#)”, use this sheet to draw and explain the steps of the water cycle.

Water Cycle Notebook Diagram and Explanation



“My Journey As A Water Drop” Writing Activity



Directions: Write about what you have learned about the water cycle. Imagine you are a raindrop. Think about and write or draw the journey you will take through the water cycle.

You may write a story, write a letter to a friend who is also a raindrop, or create a comic.

Include details that answer:

- Where did you come from?
- Where are you going?
- How will you get there?
- How long has your journey taken?
- How are you connected to the bodies of water that you learned about?

Grade 3 Water Bodies/Water Cycle Mini Unit Rubric

I can...	Expert (4)	Proficient (3)	Apprentice (2)	Novice (1)
Identify different bodies of water	Can identify all types of bodies of water and provide specific examples.	Can identify all types of bodies of water.	Can identify some bodies of water.	Can identify only one body of water.
Describe characteristics of bodies of water	Demonstrates clear understanding of all characteristic of each of the different bodies of water by providing specific details.	Demonstrates understanding of key characteristics of most of the different bodies of water by providing specific details.	Demonstrates some understanding of some characteristics of bodies of water by providing details.	Understanding is limited to one or two characteristics of only one or two bodies of water.
Identify the stages of the water cycle	Can identify all stages of the water cycle and provide specific examples.	Can identify all stages of the water cycle.	Can identify some stages of the water cycle.	Can identify only one phase of the water cycle.
Explains the connection between the water cycle and bodies of water	Offers a detailed, clear explanation with examples and includes new ideas.	Offers a detailed, clear explanation with examples.	Offers an explanation with some detail and/or examples.	Explanation includes few or no examples or details.
Use new scientific vocabulary	Regularly use new scientific vocabulary correctly within class discussion as well as writing.	Use new scientific vocabulary correctly most of the time within class discussion/writing.	Sometimes use new scientific vocabulary during discussion/writing.	May use new scientific vocabulary occasionally.

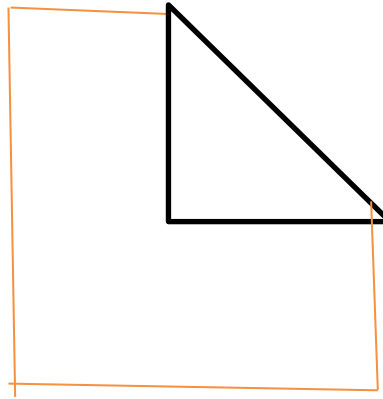
Instructions for Water Cycle Foldable Mini Book

1



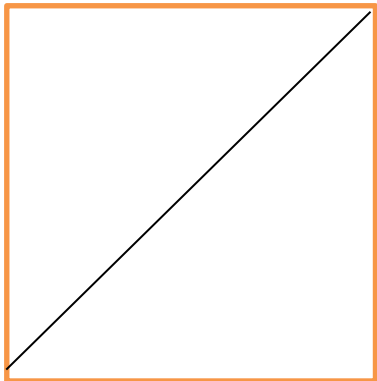
Begin with a square piece of paper.

2



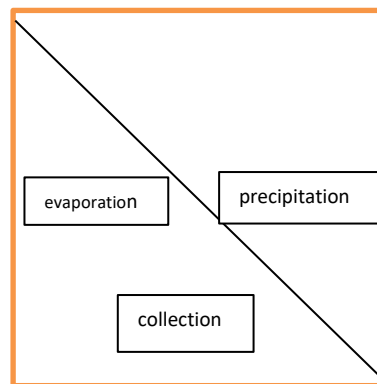
Fold the corners of the paper

3

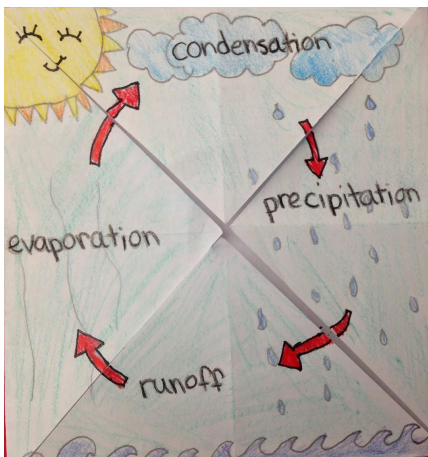


Fold the paper into a diamond.

4



Write the words on the triangles.
Write the definitions on the inside.

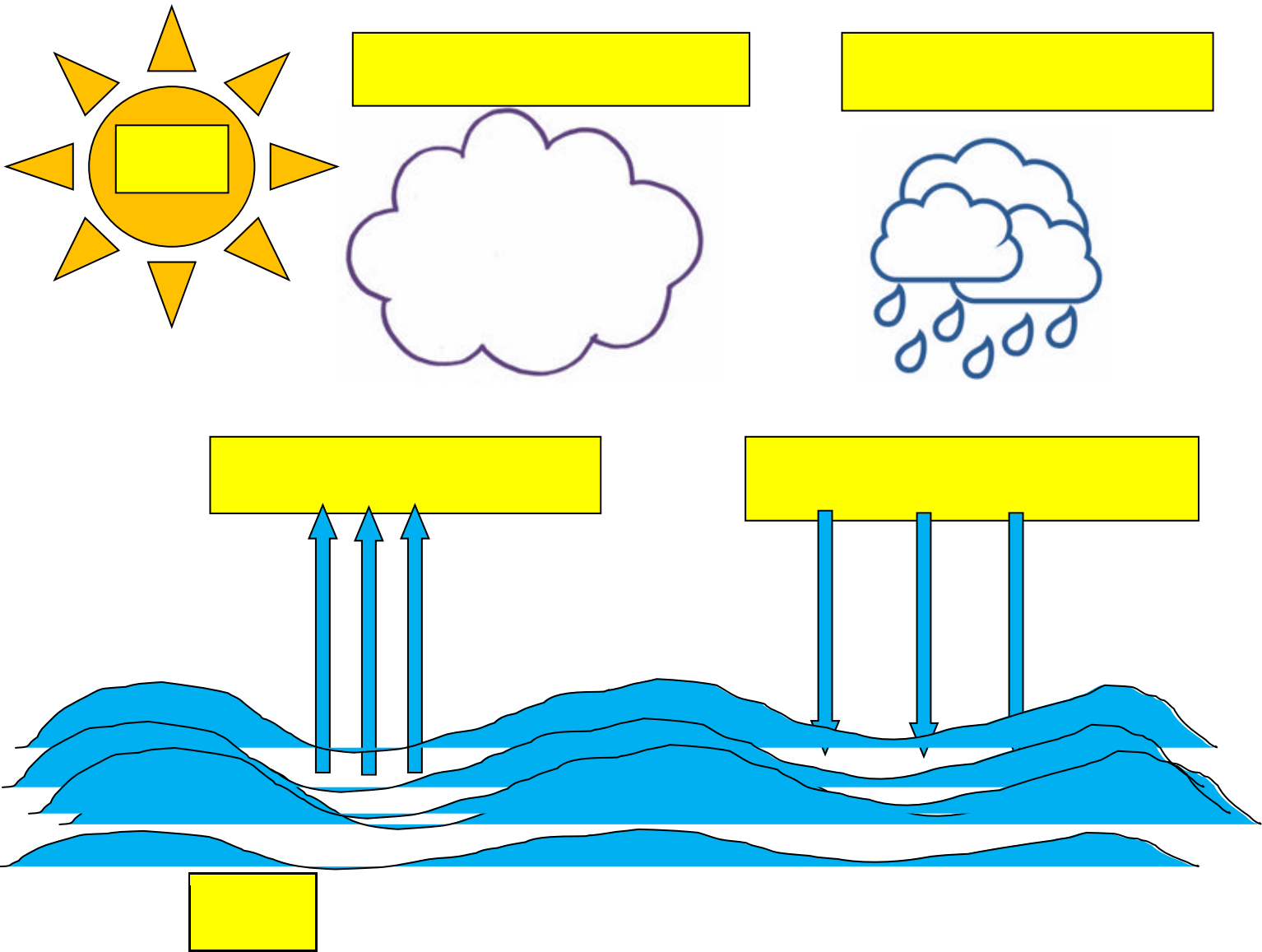


Name _____ Date _____

Water Cycle Graphic Organizer

Use the vocabulary box below to label the diagram. Add arrows to indicate the direction of the water cycle.

heat	condensation	evaporation
water storage (collection)	precipitation	water

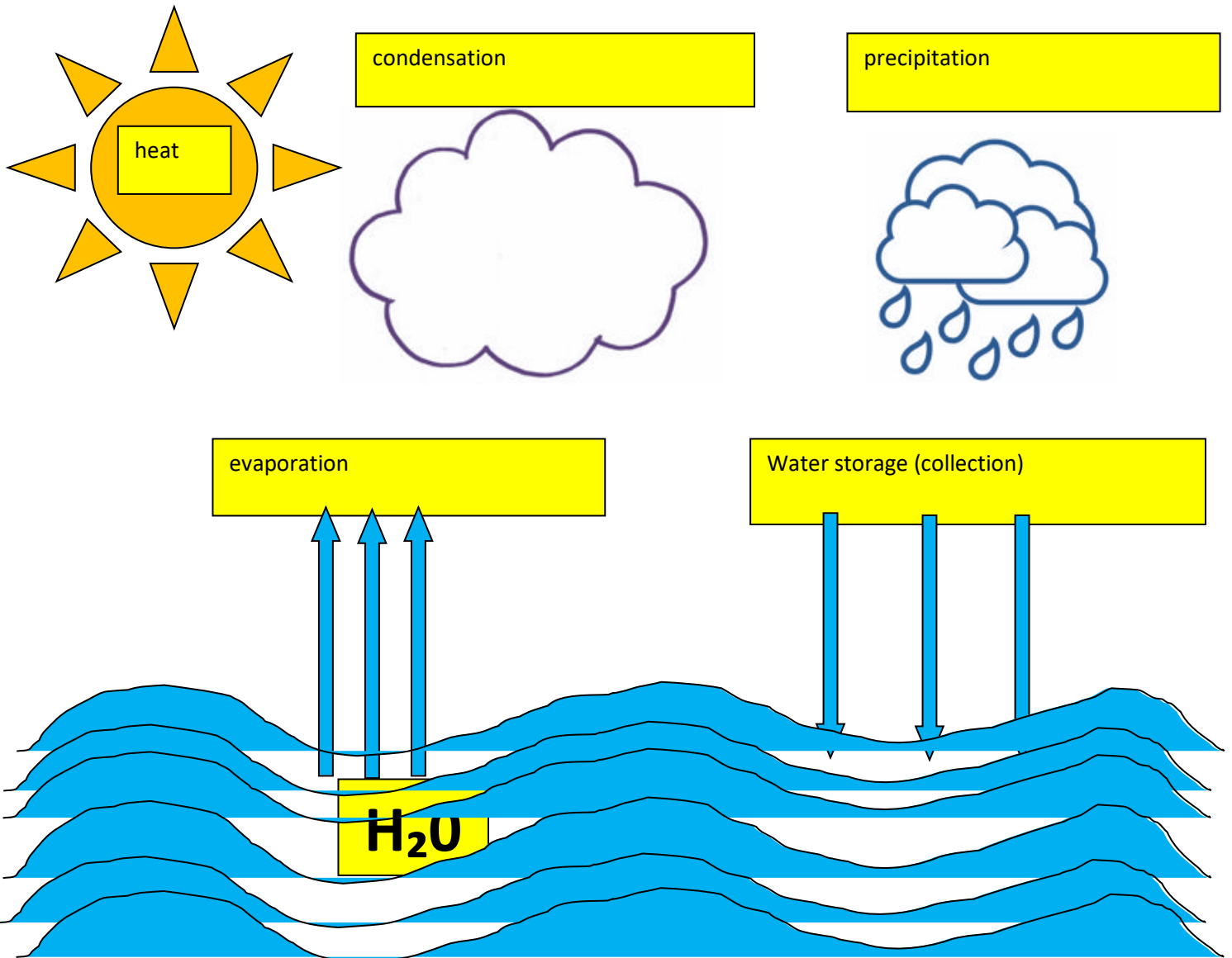


Name _____ Date _____

Water Cycle Graphic Organizer

Use the vocabulary box below to label the diagram. Add arrows to indicate the direction of the water cycle.

heat condensation evaporation collection precipitation water



Alternative Water Cycle Activities

Lego Water Cycle from www.KCedventures.com



Water Cycle Simulation (Sim) Station Student Sheet

1. Go to the Water Cycle Simulation:
https://www3.epa.gov/safewater/kids/flash/flash_watercycle.html
2. Explore the Sim by pressing the buttons on the left side of the screen.
3. In your science notebook, draw and write notes about what you learned.

2-Liter Soda Bottle Rainmaker Activity

Check out the Youtube link to find out how. The video is one minute 56 seconds long.

<https://www.youtube.com/watch?v=h1K76D00ljU>

Water Cycle Song

(Tune: The Farmer in the Dell)

*Our water is recycled
Our water is recycled
The water cycle is what it's called
Our water is recycled*

*The sun dries up the water
The sun dries up the water
Evaporation is what it's called
The sun dries up the water*

*The vapor forms a cloud
The vapor forms a cloud
Condensation is what it's called
The vapor forms a cloud*

*It starts to rain or snow
It starts to rain or snow
Precipitation is what it's called
It starts to rain or snow*

*Our water is recycled
Our water is recycled
The water cycle is what it's called
Our water is recycled*

Water Cycle Tableau Activity

- Facilitator divides students into 3 groups
- Facilitator says: "You will work with your group to come up with 4 tableaux to show the 4 stages of the water cycle. Make sure to show each stage and that everyone in your group participates. You will have 8 minutes to prepare".
- 1 minute later: Facilitator gives 3 props per group and instructs them to integrate the props into their tableaux (*instruction given to individual groups*)
- 1 minute later: Facilitator instructs groups to add at least one sound to the series of tableaux (*general announcement*)
- 1 minute later: Facilitator instructs each group to prepare a title for their tableau that they can present at the beginning or the end (*general announcement*)
- Facilitator calls an end to the tableau preparation and instructs students to return to their seats
- Facilitator says: "Each group will now perform their series of tableaux. Please respect and observe what they have prepared"
- Facilitator circulates and prompts each group to present what they have prepared

Water Cycle Shaving Cream Experiment

1. Gather the following materials: shaving cream, a small glass, a medium glass, a straw or eyedropper, blue food coloring and water
2. Place approximately 3 tablespoons of water in the small glass and add about 10 drops of blue food coloring.
3. Fill the medium glass with water. Add 1-3 inches of shaving cream to the top. The more shaving cream you use the longer the experiment will last.
4. Add the colored water to the shaving cream drop by drop using an eye dropper or by dipping the straw in the colored water, placing your finger over the end, holding it over the shaving cream, and lifting your finger enough to allow drops of colored water to drip onto the shaving cream.
5. Continue dropping the water onto the shaving cream until you observe it getting too heavy and "rain" starting to come out below. Depending on the amount of shaving cream used, this could take anywhere from 40-100 drops.



Directions: Use this sheet after observing the water cycle shaving cream experiment.



Name _____

Date _____

Class _____

Let It Rain!

I think the
cloud will hold
_____ drops

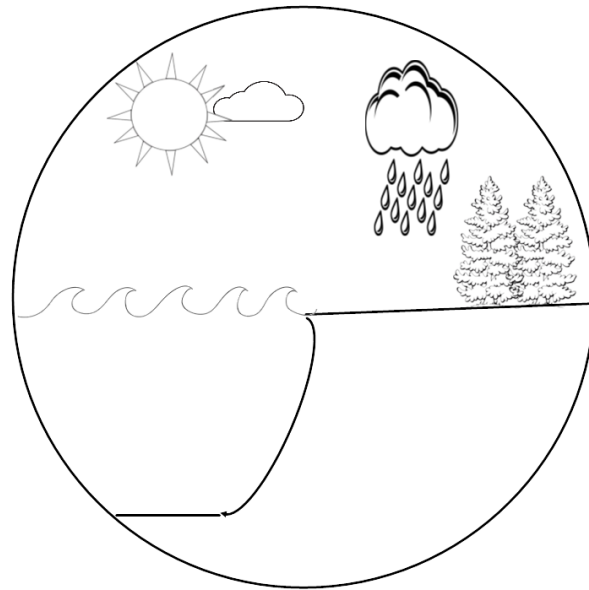
The cloud
actually held
_____ drops

A picture of my experiment

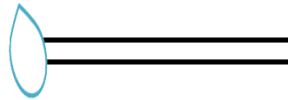
This is what I learned

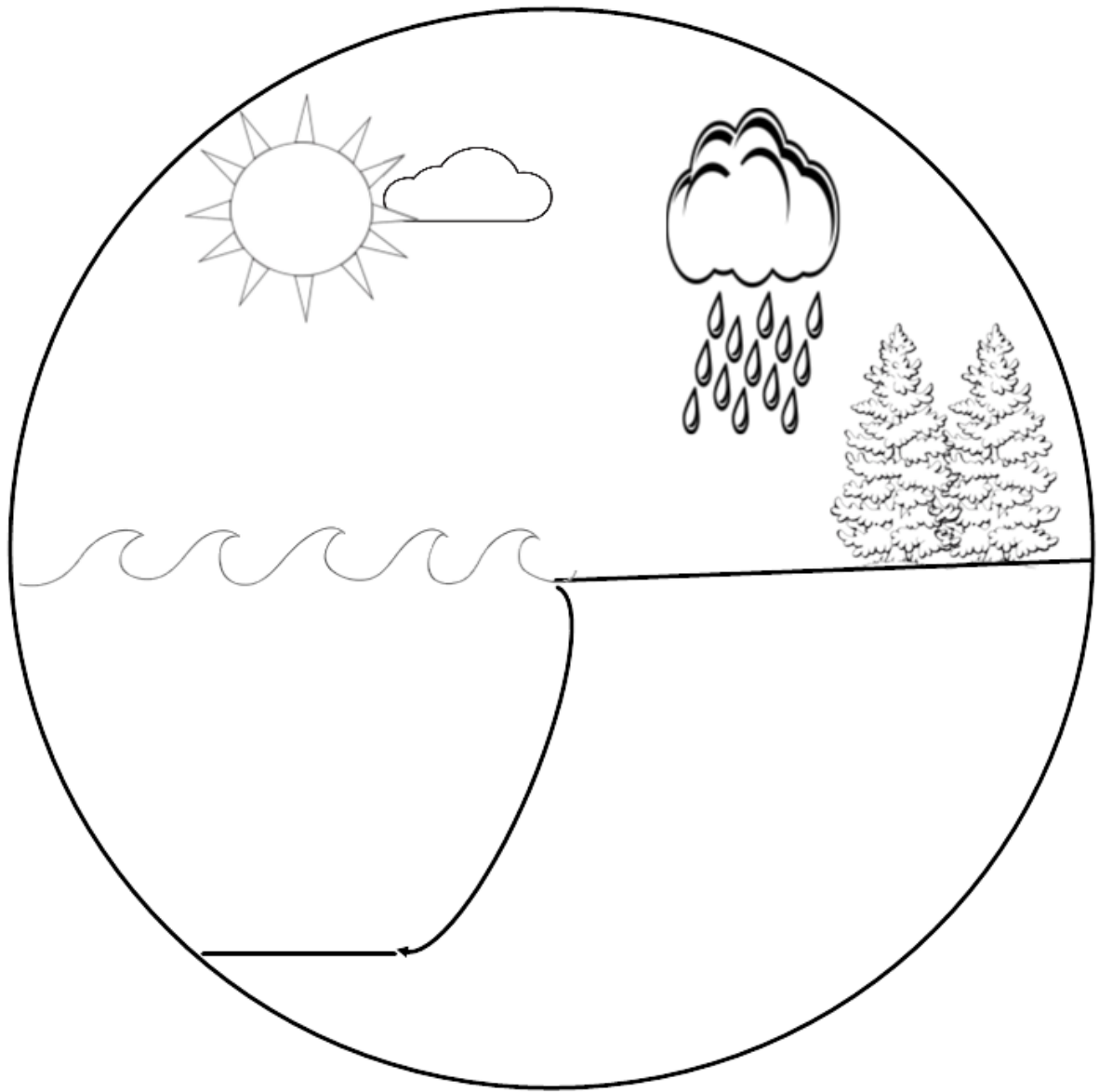
Water Cycle Paper Plate Wheel

Color the picture of the water cycle, then cut it out and glue it in the center of a paper plate. After that label the stages of the water cycle. Finally, cut out the water drop spinner and attach it to the center of the diagram.



precipitation
condensation
evaporation
collection





precipitation
condensation
evaporation
collection

