



**Make a Terrarium**

# Teacher Pack



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# Materials Needed for the Projects in This Unit

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## Water Cycle Diagram

- White construction paper or copy paper
- Crayons, colored pencils, or markers

## Making a Terrarium

- 2-liter soda bottle, cut in half
- Small stones or pebbles
- Potting soil
- Spoon
- Small plant
- Spray bottle filled with water

## Water Cycle Skit Props/Background

- “Raindrop Patterns” printable on page 14 of the Student Pack
- A piece of posterboard
- Scissors
- Crayons, colored pencils, or markers



# Books About the Water Cycle

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**Note for the Teacher:** Gather books about the water cycle. The students can use them to gather background information about the water cycle.

## Suggested Books:

**An Adventure Through the Water Cycle with Drip the Raindrop** by Cara Moyers

**Agent H2O Rides the Water Cycle** by Rita Goldner

**Drop: An Adventure Through the Water Cycle** by Emily Kate Moon

**A Drop Around the World** by Barbara Shaw McKinney

**Evaporation, Transpiration, and Precipitation** by Baby Professor

**From River to Raindrop** by Emma Carlson-Berne

**The Great Big Water Cycle Adventure** by Kay Barnham and Maddie Frost

**The Magic School Bus at the Waterworks** by Joanna Cole and Bruce Degen

**Pearl the Raindrop: The Great Water Cycle Journey** by Rana Boulos

**The Water Cycle** by Bobbie Kalman and Rebecca Sjonger

**The Water Cycle** by Sonia Black

**The Water Cycle: A 4D Book** by Catherine Ipcizade

**The Water Cycle at Work** by Rebecca Jean Olien

**The Water Cycle for Kids** by Samuel John

**Water Is Water: A Book About the Water Cycle** by Miranda Paul and Jason Chin



# The Water Cycle for Kids Video

## Answer Key

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**Teacher Notes:** Show your students the video “[The Water Cycle for Kids.](#)” Have them answer the questions as they watch. Discuss the answers as a class.

### 1. What is the water cycle?

*The water cycle is the path all water follows as it moves around the Earth in different states.*

### 2. What is evaporation, and what causes it?

*Evaporation is when water changes from a liquid to a gas. It is caused by the sun heating up water in the ocean or another body of water. The water turns into a gas and goes into the air.*

### 3. What is transpiration?

*Transpiration is the process by which plants release water from their leaves in the form of a gas called water vapor that goes into the air.*

### 4. What is condensation?

*Condensation occurs when the water vapor in the air cools. It changes from a gas back into a liquid. This causes clouds to form.*

### 5. What are the four types of precipitation?

*The four types of precipitation are rain, snow, sleet, and hail.*

### 6. How can you help to save water?

*I can turn off the water when I'm brushing my teeth or take shorter showers. I can talk to my parents about watering the lawn less. I can also keep water clean by removing litter from rivers, lakes, and oceans.*

# Make a Terrarium Quick Quiz

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**Directions:** Read each question. Circle the best answer. Use information from this unit to complete the sentences.

1. Which stage of the water cycle occurs when water vapor cools and forms clouds?

- A. Evaporation
- B. Transpiration
- C. Condensation
- D. Precipitation

After a lot of water collects in the cloud, it will .....

2. Which of these is NOT a form of precipitation?

- A. Rain
- B. Fog
- C. Snow
- D. Sleet

The form the water takes as it falls to the ground depends on .....

.....

3. Why did you put small stones in the bottom of your terrarium?

- A. To make it look pretty
- B. To help evaporation occur
- C. To hold the plant in place
- D. To collect any extra water

We kept the cap on the soda bottle because .....

.....

4. Which of these is NOT an important part of the water cycle?

- A. Clouds
- B. The sun
- C. Trees
- D. Sand

Evaporation occurs when .....

.....

# Make a Terrarium

## Quick Quiz *Answer Key*

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**Directions:** Read each question. Circle the best answer. Use information from this unit to complete the sentences.

1. Which stage of the water cycle occurs when water vapor cools and forms clouds?

- A. Evaporation  
B. Transpiration  
*C. Condensation*  
D. Precipitation

After a lot of water collects in the cloud, it will *fall to the ground as precipitation.*

2. Which of these is NOT a form of precipitation?

- A. Rain  
B. *Fog*  
C. Snow  
D. Sleet

The form the water takes as it falls to the ground depends on *the temperature of the air.*

3. Why did you put small stones in the bottom of your terrarium?

- A. To make it look pretty  
B. To help evaporation occur  
C. To hold the plant in place  
*D. To collect any extra water*

We kept the cap on the soda bottle because *the water would evaporate out of the bottle if the lid wasn't on.*

4. Which of these is NOT an important part of the water cycle?

- A. Clouds  
B. The sun  
C. Trees  
*D. Sand*

Evaporation occurs when *the sun heats water and makes it change from a liquid to a gas.*



## Oral Presentation Mini-Lesson

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- Use a loud, clear voice.
- Face front.
- Don't hold any papers in front of your face.
- Make eye contact with your audience.
- Move your raindrop through the parts of the water cycle.



Name .....

Date .....

# Make a Terrarium Summative Assessment



## Part A

**Directions:** Match each part of the water cycle with its definition by writing the correct letter on the line.

- |                     |  |
|---------------------|--|
| ..... Evaporation   | A. The process by which plants release water vapor into the air            |
| ..... Condensation  | B. Water changes from a liquid to a gas when it's heated                   |
| ..... Transpiration | C. Water that falls from the sky in the form of rain, snow, sleet, or hail |
| ..... Precipitation | D. Water vapor in the air cools and changes from a gas to a liquid         |

## Part B

**Directions:** Explain how your terrarium demonstrates the water cycle. Pretend you are a drop of water on the top of the bottle. Explain what happens to you as you travel through the water cycle. Use the words evaporation/transpiration, condensation, and precipitation in your paragraph.

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# Make a Terrarium

## Summative Assessment

### Answer Key

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#### Part A

**Directions:** Match each part of the water cycle with its definition by writing the correct letter on the line.

- |   |               |    |   |
|---|---------------|----|---|
| B | Evaporation   | A. | The process by which plants release water vapor into the air            |
| D | Condensation  | B. | Water changes from a liquid to a gas when it's heated                   |
| A | Transpiration | C. | Water that falls from the sky in the form of rain, snow, sleet, or hail |
| C | Precipitation | D. | Water vapor in the air cools and changes from a gas to a liquid         |

#### Part B

**Directions:** Explain how your terrarium demonstrates the water cycle. Pretend you are a drop of water on the top of the bottle. Explain what happens to you as you travel through the water cycle. Use the words evaporation/transpiration, condensation, and precipitation in your paragraph.

*Sample paragraph:*

*I am a drop of water at the top of the terrarium. More water keeps joining me, and I'm getting heavier. Now, I'm falling as precipitation. I just landed in the soil. Now, it's starting to get hot. I am evaporating, which means I'm changing from a liquid into a gas called water vapor. I'm in the air, and I keep rising toward the top of the terrarium. It's starting to get colder up here. I'm changing form again. I'm going from a gas to a liquid. This is called condensation. Now, I'm back at the top of the terrarium, and I'm ready to go through the water cycle again.*

Name .....

Date .....

# Make a Terrarium Rubric

	4	3	2	1
<b>Water Cycle Diagram</b>	The water cycle diagram has all 9 important parts from the “Water Cycle Diagram Guidelines.” It is very neat and colorful.	The water cycle diagram is missing one, two, or three important parts from the “Water Cycle Diagram Guidelines.” It is neat and colorful.	The water cycle diagram is missing four, five, or six of the important parts from the “Water Cycle Diagram Guidelines.” It is colorful.	The water cycle diagram is missing seven or more important parts from the “Water Cycle Diagram Guidelines.” It is not neat or colorful.
<b>Terrarium</b>	The students carefully followed the directions on the “Making a Terrarium” printable. It is very neatly constructed and shows all the parts of the water cycle.	The students followed the directions on the “Making a Terrarium” printable. It is neatly constructed and shows all the parts of the water cycle.	The students followed most of the directions on the “Making a Terrarium” printable. It has all the important parts and shows most of the parts of the water cycle.	The students didn’t follow the directions on the “Making a Terrarium” printable. It is missing parts and doesn’t show the water cycle.
<b>Water Cycle Story/Comic</b>	The water cycle story/comic includes all the parts of the water cycle. It is very creative and neatly done.	The water cycle story/comic includes all the parts of the water cycle. It is creative and neat.	The water cycle story/comic is missing one or two parts of the water cycle. It has some creativity.	The water cycle story/comic is missing three or more parts of the water cycle. It is not creative or neat.
<b>Water Cycle Skit</b>	The students spoke loudly and clearly and moved their raindrops through all parts of the water cycle.	The students spoke loudly and clearly, but the raindrops missed one step in the water cycle.	The students’ voices were too quiet or the raindrops missed two or three steps in the water cycle.	The students’ voices were too quiet, and the raindrops missed all four steps in the water cycle.

Teacher’s comments: .....

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