

LESSON PLAN

The Water Cycle Adventure

Students will observe and explore the water cycle using a jar experiment to simulate evaporation, condensation, and precipitation. They will discuss real-world applications and identify key phases in a fun and interactive way.

**Recommended
age for this game**

Learning Objectives



**45 - 60
min**

Duration

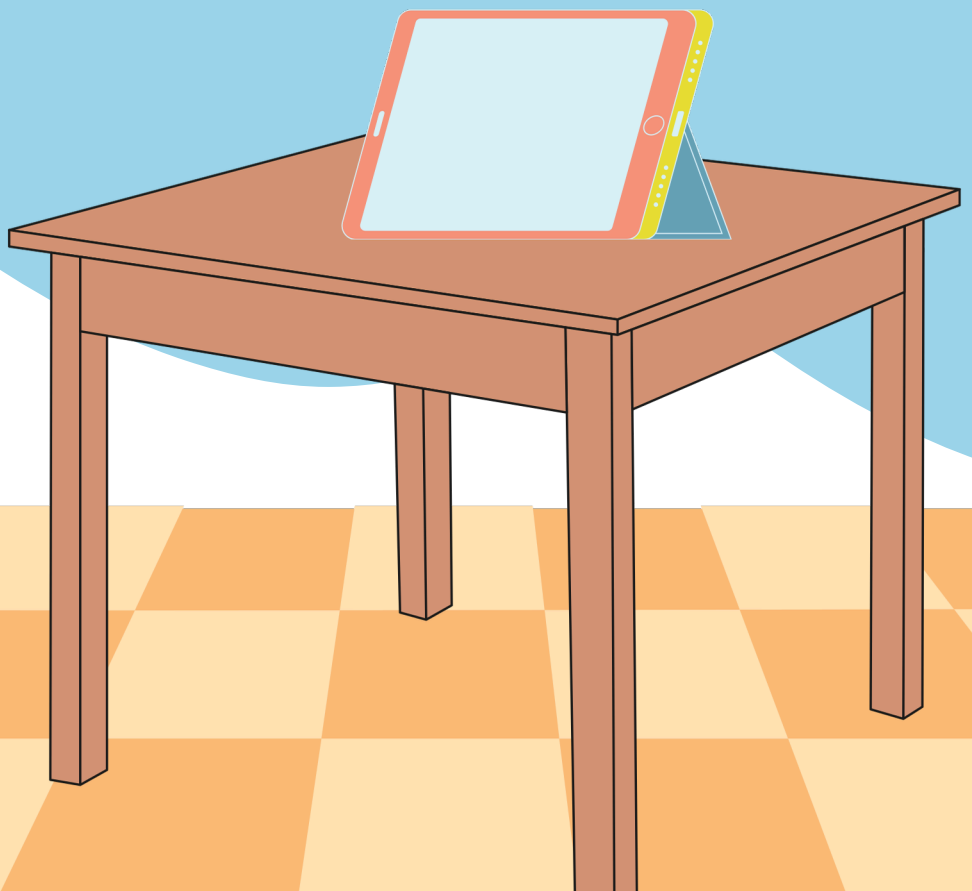
**6-9
years old**



- Understand the four main stages of the water cycle: evaporation, condensation, precipitation, and collection.
- Observe and analyze real-world applications of the water cycle by linking it to natural phenomena (e.g., rainfall, cloud formation, puddles drying).

Materials and tools needed

- Warm water
- Ice cubes
- Clear jar or plastic container with a lid Small plate or plastic cover
- Food coloring (optional)
- Printable water cycle diagram (see [references](#))



Guidance for Teachers

Activity description

- 1.Introduction and demonstration: The teacher leads a discussion on the water cycle and demonstrates how evaporation, condensation, and precipitation work using a simple jar experiment.
- 2.Hands-on experimentation: Students conduct their own water cycle in a jar experiment, observing condensation and precipitation in action.
- 3.Water cycle diagram activity: Students draw and label the different stages of the water cycle on a worksheet, reinforcing their understanding.
- 4.Technology integration: Students watch a short animation on the water cycle to visualize how water moves through different stages in nature.
- 5.Discussion and reflection: A group discussion on real-world examples of the water cycle, followed by a quiz to review key concepts (See [Annex 1](#) for quiz questions).



Guidance for Teachers



Preparation

- Gather materials and ensure all students have access to jars and water.
- Prepare a short video or simulation about the water cycle.
- Set up the classroom for hands-on experimentation.
- Create simple worksheets for students to draw and label the water cycle stages.

Implementation steps

Introduction

- Discuss where water comes from and where it goes after rain.
- Show a short animated video of the water cycle.
- Ask students to share what they already know about rain, clouds, and water.





Guidance for Teachers

Implementation steps

Hands-on Experiment - Water Cycle in a Jar

- Fill a clear jar with warm water (about halfway full).
- Cover the jar with a plastic plate or lid.
- Place ice cubes on top of the cover.
- Observe: After a few minutes, students will notice condensation forming inside the jar (like a cloud!).
- Discuss how warm water evaporates, cools down, and turns into condensation before falling back as precipitation.

OPTIONAL

- Add food coloring to the water to visualize movement better.





Guidance for Teachers

Implementation steps

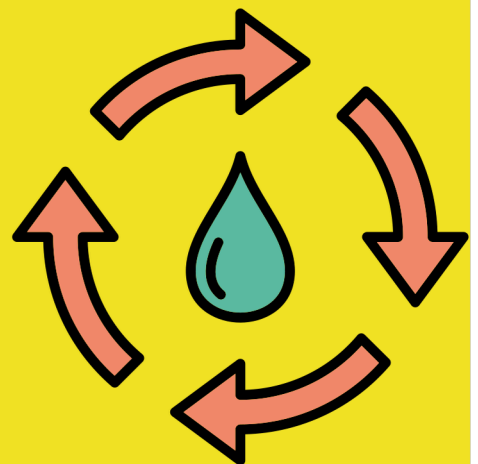
Reflection and discussion

- Ask students questions like:

???????

- **What happens when the sun shines on a lake?**
- **What happens when clouds get too heavy?**

- Have students discuss the importance of the water cycle in nature.



Follow-up and reflection



1. Expected Outcome:

- Students understand how the water cycle works and can explain it in their own words.
- Students can identify the four main stages using a diagram or experiment observations.

2. Student Activities:

- Interactive quiz: Use Kahoot! or Google Forms to check their understanding (Questions in Annex 1)
- Draw and label their own water cycle diagram.

- **Discussion**

- What would happen if the water cycle stopped?
- Where do we see this cycle in real life?

Student Activities

Activity description	Expected outcome	Technology integration
Create a Mini Water Cycle	Students will understand how the water cycle functions by observing evaporation, condensation, and precipitation.	Use a short educational video to illustrate water cycle stages.
Hands-on Jar Experiment	Students will see condensation and precipitation in action.	Take photos of the experiment and create a presentation.
Labeling Water Cycle Diagram	Reinforce knowledge of water cycle stages through visual learning.	Use an interactive quiz (e.g., Kahoot) to test understanding.
Discussion and Reflection	Students will articulate how the water cycle affects the environment.	Conduct a class discussion and use a digital whiteboard for brainstorming.



Reflective questions for students

- What did you learn about the water cycle that surprised you?
- How can you apply what you learned today to real-world situations?
- Where does this happen in nature?
- What happens when a puddle disappears on a hot day?



Differentiation ideas

For advanced students:

- Ask them to predict what would happen if the water cycle changed (e.g., what if there was no sun or no condensation?).

For students with special needs:

- Use visual aids like large, color-coded labels and provide extra guidance in small groups.



Tips

- Adjust explanations to the students' age level by using relatable terms like "water disappearing" instead of "evaporation."
- Before the experiment, ask students what they think will happen when the warm water meets the ice.
- Allow students to take turns pouring water, placing ice, and making observations to keep them engaged.
- Relate the water cycle to everyday examples like puddles drying after rain or steam from a kettle.
- Draw or print a large water cycle diagram to reinforce the concept.
- Offer hands-on activities for kinesthetic learners, discussions for verbal learners, and videos for visual learners.
- Set clear time limits for each activity to ensure all steps are completed within the lesson.
- Guide students in discussing their observations and linking them to the water cycle stages.

Additional materials and references

[Video “The Water Cycle”](#)

[Interactive Water Cycle](#)

[Worksheets for kids to draw themselves or for teacher to print and ask to fill in](#)

[Kahoot](#)



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ANNEX 1

Questions for the quiz

1. Which stage of the water cycle happens when water changes from a liquid to a gas?

- A) Condensation
- B) Precipitation
- C) Evaporation**
- D) Collection

2. What causes condensation in the water cycle?

- A) The Sun heating up the water
- B) Water vapor cooling down**
- C) Rain falling from clouds
- D) Water soaking into the ground

3. What is precipitation?

- A) Water turning into vapor
- B) Water falling from clouds as rain, snow, or hail**
- C) Water collecting in lakes and oceans
- D) Water moving underground

4. Where does most of the Earth's water collect?

- A) Rivers
- B) Lakes
- C) Clouds
- D) Oceans**

5. What happens when the sun heats up water in a lake?

- A) It turns into ice
- B) It evaporates into the air**
- C) It forms clouds immediately
- D) It disappears forever