

WATER CYCLING

GRADES 3-5



BACKGROUND

People use water in a variety of ways, from recreation to sustaining life. These activities will help you and your students understand and appreciate the water cycle!

The total amount of water on Earth stays the same. It is always cycling through the water cycle. All of the water that is here today was here years ago and in the time of dinosaurs! (And only 0.02% of the water on Earth is freshwater that is readily available for use by people!) The water in rivers, lakes, and oceans rises in a process called evaporation; as the water molecules heat up and move around more, they become a gas (water vapor) and rise into the air. The water molecules then slow down, cool down and become water droplets, and then gather with dust particles to form clouds. This process is called condensation. When the clouds become too heavy, water droplets fall as precipitation. Water either runs across the land as surface runoff or soaks into the ground as infiltration.

MATERIALS

- Worksheets
- Blue crayons or colored pencils

INSTRUCTIONS

1. Give each student a worksheet and a blue writing utensil.
2. Review the main steps of the water cycle with the students:
 - **Evaporation:** water changes form into water vapor and rises when it is hot
 - **Condensation:** water vapor cools, changes to liquid, and joins with dust to form clouds
 - **Precipitation:** clouds of water vapor get too heavy and the water falls
 - **Infiltration:** water soaks into and moves through the ground
3. Ask the students to draw arrows on the worksheet to show the path of water in its cycle and add the words Evaporation, Condensation, Precipitation and Infiltration in the appropriate boxes.
4. Discuss worksheet responses with the students and review the steps of the water cycle.

DEFINITIONS

Evaporation: The transformation of water molecules from liquid phase to vapor phase

Condensation: The transformation of water molecules from vapor phase to liquid phase

Precipitation: Water falling from clouds as rain, snow, sleet, or hail

Infiltration: Water in liquid form as it soaks into and moves through the soil

THE WATER CYCLE

Write in the boxes each phase of water in the cycle:
Evaporation, Condensation, Precipitation, Infiltration.

Draw arrows to show the cycle of water.

