

## Water

GRADES 3–5

### Guiding Question

What is the water cycle, and how does it support life on Earth?

### Connecting Concepts

- Matter cycles between the air and soil and among plants, animals, and microbes as these organisms live and die. Organisms obtain gases, water, and minerals from the environment, and release waste matter (gas, liquid, or solid) back into the environment. (LS2.B: Cycles of Matter and Energy Transfer in Ecosystems)
- Plants acquire their material for growth chiefly from air and water. (LS1.C: Organization for Matter and Energy Flow in Organisms)
- Forest ecosystems include processes such as photosynthesis, energy flow, and the cycling of nutrients, water, carbon, and other matter. (PLT FLF, 1.C.3)
- Urban trees filter water and mitigate stormwater runoff. (PLT FLF, 2.A.6)

### Scope and Sequence

The collection and arrangement of content below supports an intentional student learning progression.

Activity	Description
<b>Field, Forest, and Stream</b> (in Grades 6–8, see 3–5 Variation)	Students identify locations with the most and least sunlight, temperature, moisture, wind, plants, and animals.
<b>Water Wonders</b>	Students explore the various steps of the water cycle and make connections between the water cycle and living things.
<b>Every Drop Counts</b>	Students monitor their water use over the course of a day.

See [plt.org/academic-standards](http://plt.org/academic-standards) for detailed standards correlations for each activity.

### Storyline

Students explore the concepts that water is essential for life on Earth and that water moves through ecosystems in the water cycle.

- Begin with the Variation for Grades 3–5 in the activity Field, Forest, and Stream to help students see that water is important not just for individual organisms but also for ecosystems.
- Next use the activity Water Wonders to explore the water cycle. In this activity, students model the water cycle to see how water moves through the environment and through living things.
- Conclude the unit with the activity Every Drop Counts. Challenge students to monitor how they use water for a day and to calculate how much they use. Ask them to consider how their water use affects other living things and ecosystems. Then challenge them to design, implement, and evaluate a plan for using less water.