

Dear Parent or Guardian,

Your child is now beginning TEKS 4.10, “Earth Processes.” Read more to find out what your child is exploring!



What We’re Doing

Where does the water to form a glacier come from? How do glaciers change the surface of Earth? Can there be snow in a tropical climate?

By the end, your child will be able to

- describe the movement of water in the water cycle
 - model the slow changes caused by weathering, erosion, and deposition
 - explain the differences between weather and climate

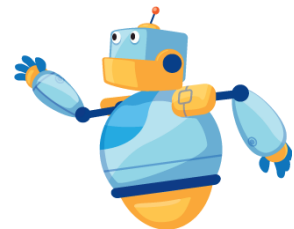
At-Home Activity

To prepare your child for TEKS 4.10, try this short activity:

- Fill a plastic cup halfway with water. Use a black marker to make a line on the cup to show where the top of the water is.
- Place the cup of water in the freezer overnight.
- The next day, compare the liquid water level to the frozen water level. How does this model the effects of frozen water on Earth’s surface?

Engage your child by asking these questions:

- How do water, ice, and wind change Earth’s surface?
- What patterns can be observed with the changes that happen on Earth’s surface?



Helpful Resources



Log on to *Ed* to

- download lesson PDFs
- interact with the digital lesson
- explore the FUNomenal Reader *Disappearing Land*
- examine the simulation *Evidence of Change*

Science Summary

Vocabulary for this topic includes *atmosphere, condensation, evaporation, runoff, water cycle, deposition, erosion, sediment, weathering, climate, climate zone, equator, latitude, and weather.*

- The amount of water on Earth stays the same. This water continuously cycles through Earth and its atmosphere. This is known as the water cycle.
- Weathering is the breaking down of rocks on Earth's surface. Erosion is the process of moving weathered rock and soil from one place to another. Deposition occurs when water slows down and drops the sediment it carries.
- Weather is what is happening in the atmosphere at a certain place and time. Climate is the pattern of weather in an area over a long period of time. The movement of ocean currents, distance from the equator, and elevation affect weather and climate.

Misconception Alert!

If your child has one of these misconceptions, here's how you can help.

- **Misconception 1: Erosion is always bad.**

To address this, explain that in areas of the world such as near the Nile River in Egypt, the deposition of eroded sediments have resulted in fertile farming land. Erosion is a natural process that has both good and bad effects.

- **Misconception 2: Water disappears when it evaporates.**

To address this, ask your child to think about what happens when water condenses. Your child should recognize that evaporation and condensation are opposite processes. When water evaporates, it becomes water vapor in the air.

Thank you for supporting your child's education.

Sincerely,

The 4th Grade Teachers