

<p>Important Concepts</p> <p>Water Cycle, Rock Cycle, Weather</p> <p>K-2 Level</p>	<p>Alaska Science Content Standard <b>D1</b>: Students develop an understanding of Earth’s geochemical cycles.</p> <p>Alaska Science Content Standard <b>D3</b>: Students develop an understanding of the cyclical changes controlled by energy from the sun and by Earth’s position and motion in our solar system. (Partially addressed)</p>
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Grade Level Expectations:

There are no state grade level expectations (GLEs) for science for students in Grades K-2. Students at this age should be given a foundation for the concepts that they will need to master by grades 3 and 4, as follows:

Grade Level Expectations:

The student demonstrates an understanding of geochemical cycles by:

- [3] **SD1.1** recognizing that most rocks are composed of combinations of different substances
- [3] **SD1.2** describing the water cycle to show that water circulates through the crust, oceans, and atmosphere of Earth
- [4] **SD1.1** describing that most smaller rocks come from the breaking and weathering of larger rocks as part of the rock cycle
- [4] **SD1.2** recognizing the physical properties of water as they relate to the rock cycle

The student demonstrates an understanding of cycles influenced by energy from the sun and by Earth’s position and motion in our solar system by:

- [3] **SD3.1** using recorded weather patterns (e.g., temperature, cloud cover, or precipitation) to make reasonable predictions (**L**)

According to AAAS’s Benchmarks for Science Literacy\*, some of the things that students should know and understand by the end of the second grade are:

- The temperature and amount of rain (or snow) tend to be high, low, or medium in the same months every year.
- Water can be a liquid or a solid and can go back and forth from one form to the other. If water is turned into ice and then allowed to melt, the amount of water is the same as it was before freezing.
- Water left in an open container disappears, but water in a closed container does not disappear.
- Chunks of rocks come in many sizes and shapes, from boulders to grains of sand and even smaller.
- Change is something that happens to many things.
- Animals and plants sometimes cause changes in their surroundings.

\*Project 2061, American Association for the Advancement of Science, Benchmarks for Science Literacy. New York: Oxford University Press, 1993.