

<p>Important Concepts</p> <p>Solar System and Universe</p> <p>K-2 Level</p>	<p>Alaska Science Content Standards <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> <p><b>D4</b> Students develop an understanding of the theories regarding the evolution of the universe.</p>
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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:

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:

[4] **SD3.1** recognizing changes to length of daylight over time and its relationship to seasons

The student demonstrates an understanding of the theories regarding the origin and evolution of the universe by:

[3] **SD4.1** recognizing that objects appear smaller the farther away they are

[3] **SD4.2** recognizing that objects have properties, locations, and movements that can be observed and described

[3] [4] [5] **SD4.3** recognizing and using appropriate instruments of magnification (e.g., binoculars and telescopes) (L)

[4] **SD4.1** recognizing that stars are like the sun but are so far away that they look like points of light

[4] **SD4.2** recognizing that objects have properties, locations, and movements that can be observed and described

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:

There are more stars in the sky than anyone can easily count, but they are not scattered evenly, and they are not all the same in brightness or color.

The sun can be seen only in the daytime, but the moon can be seen sometimes at night and sometimes during the day. The sun, moon, and stars all appear to move slowly across the sky.

The moon looks a little different every day but looks the same again about every four weeks.

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