

Grade 4 Science Proficiency Level Descriptors

Advanced Level

The student displays a highly developed conceptual understanding by designing simple investigations and incorporating the processes of science; explaining technological, local, and historical connections to science; modeling and explaining the characteristics of matter including the phase changes caused by heating and cooling; providing detailed explanations of past and present organisms and comparing their links to the Alaska environment; explaining and modeling the rock cycle and cycles caused by the changing positions of the Sun and Earth; explaining causes of surface changes on Earth; and explaining and modeling that objects in the universe can be observed and described by their properties, locations, and movements.

Proficient Level

The student demonstrates a basic conceptual understanding by applying the processes of science during simple investigations; demonstrating connections between science and technological, local, and historical perspectives; identifying and comparing the characteristics of matter including phase changes caused by heating and cooling; explaining past and present organisms and their Alaska environment; describing simple processes of the rock cycle and cycles caused by the changing positions of the Sun and Earth; identifying the causes of surface changes on Earth; and recognizing that objects in the universe can be observed and described by their properties, locations, and movements.

Below Proficient Level

The student shows a fundamental understanding by recognizing the processes of science during simple investigations; exploring technological, local, and historical connections to science; describing the characteristics of matter including phase changes caused by heating and cooling; identifying past and present organisms and recognizing how they are linked to their Alaska environment; recognizing weathering as part of the rock cycle; connecting daily cycles to seasonal activities; naming causes of surface changes on Earth; and recognizing that objects in the universe can be observed and described by their properties, locations, and movements.

Far Below Proficient Level

There is a significant need for additional instructional opportunities to achieve the proficient level.