

Parent Guide to Student Reports Spring 2017 Alaska Science Assessment

The Purpose of the Alaska Science Assessment

The Alaska Science Assessment was administered to students in grades 4, 8, and 10. It provided students the opportunity to show their understanding of Alaska's science standards. The assessment provides information to parents, educators, policy makers, communities, and businesses about how Alaska's schools and districts are performing. They also provide information to help schools improve and to help meet Alaska's mission: "An excellent education for every student every day."

Types of Items

There were two main question types (also called items) on the Alaska Science Assessment, multiple-choice and constructed-response. All multiple-choice items were worth one point each. Constructed-response items required students to respond to a given prompt. Short constructed-response items received between zero to two points each, and extended constructed-response items received zero to four points each.

Performance by Standard

The Alaska standards define what students should know and be able to do in science. The standards are broken down into categories. The Alaska Science Assessment items assess student skills within these categories.

For more information on Alaska's standards, visit <https://education.alaska.gov/akstandards/>.

Terms and Types of Scores

Scale Score: A number that provides a common metric for expressing student performance. The student's overall performance on the Alaska Science Assessment is reported as a scale score. Points earned by answering an item correctly are converted into a scale score that takes into consideration the difficulty of the item.

Proficiency Levels: Student performance on the Alaska Science Assessment is reported in one of four proficiency levels. These levels describe the performance of the student on the standards tested at the grade level. The four proficiency levels are:

- **Advanced (A)**—Student meets the standards at an advanced level, demonstrating knowledge and skills of complex grade-level content.
- **Proficient (P)**—Student meets the standards at a proficient level, demonstrating knowledge and skills of current grade-level content.
- **Below Proficient (BP)**—Student partially meets the standards, and may have gaps in knowledge and skills but is capable of most grade-level content.
- **Far Below Proficient (FBP)**—Student may partially meet the standards, but has significant gaps in knowledge and skills of current grade-level content.

Standard Error of Measurement (SEM): The SEM provides information about the level of confidence that a student would achieve the same score if that student tested again on an equivalent form of the test without changing knowledge or skills. The SEM is specific for the particular grade and content area.

Science Student Report



Science Assessment
Alaska Department of Education
& Early Development

Student Report

Student Name: Constantine Montgomery-Washington VII
Grade: 4



AKSID: 123456
Test Date: Spring 2017

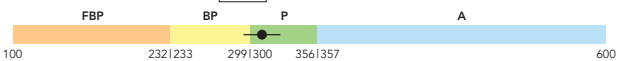
District: District Name
School: School Name

About the Alaska Science Assessment

This report provides a record of test results on the Alaska Science Assessment. The student's scale score is represented by the —●— symbol. The chart displays where this score is on the possible scale score range (100–600). If the student were to test again, the student's score would likely fall within the lines on either side of the circle.



Science | Scale Score 310



Proficient: Meets the standards; demonstrates knowledge and skills of current grade level content.

Performance by Standard — Proficiency Levels and Probable Scale Score Ranges

Subject/Standard	Points Possible	Scale Score	FBP	BP	P	A
Science	50	310			●	
S1.1 Inquiry, Technology, and Nature of Science	22	278		●		
S2.1 Concepts of Physical Science	8	320			●	
S3.1 Concepts of Life Science	10	360				●
S4.1 Concepts of Earth Science	10	268	●			

Scores in the shaded area indicate Below Proficient or Far Below Proficient, whereas scores in the non-shaded area indicate Proficient or Advanced.

Science Proficiency Level Descriptors — 4th Grade



A = Advanced: 357 and above

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.

P = Proficient: 300–356

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.

BP = Below Proficient: 233–299

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.

FBP = Far Below Proficient: 232 and below

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

For more information on the Alaska Science Assessments, please see the Educator and Parent Guides to Reports on the website: <https://education.alaska.gov/tls/assessments/peaks.html>



07/13/2017

Reading the Science Student Report

- A** This section presents student, school, and district information.
- B** The number in the box indicates the student's scale score in science.
- C** The horizontal bar graphically illustrates the student's scale score and the location of that score in the achievement level attained by the student. The dark circle in the symbol (—●—) represents the student's actual scale score. The bars on the sides of the circle represent the range of where the student's score would likely fall if the student were to test again. This represents the standard error of measurement (SEM).
- D** This section describes the student's proficiency level determined by the scale score reported in **B**. Proficiency levels are reported as Advanced (A), Proficient (P), Below Proficient (BP), or Far Below Proficient (FBP).
- E** This section shows how the student performed in the standards for science. For each standard, the points possible, scale score, and proficiency level is shown.
- F** This section provides general descriptions of what a student in this grade level can do at each proficiency level in each science.

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