



Family Guide to Assessment Reports Spring 2023 Alaska Science Assessment

The Purpose of Alaska Science Assessment

The Alaska Science Assessment is administered annually statewide to students in grades 5, 8, and 10. It provides students the opportunity to show their understanding of the skills and concepts outlined in the *K–12 Science Standards for Alaska*, which were adopted in 2019. The assessment provides information to parents, educators, policymakers, communities, and businesses about how Alaska’s schools and districts are performing. The Alaska Science Assessment also provides information to help schools improve and to meet Alaska’s educational mission, “An excellent education for every student every day.”

What’s Next?

Grade 5

Students who took the grade 5 Alaska Science Assessment should expect to continue developing knowledge related to Life Science, Physical Science, and Earth and Space Science and applying skills related to Science and Engineering Practices as they advance in their study of science. As a family member, connect with your student’s teacher to identify and discuss specific areas of strength or areas of need. You may also want to visit the DEED website for science resources such as the Online Tools Training (OTT) and the *K–12 Science Standards for Alaska* – these standards provide information on what your student should know and be able to do.

Grade 8

Students who took the grade 8 Alaska Science Assessment should expect to continue developing knowledge related to Life Science, Physical Science, and Earth and Space Science and applying skills related to Science and Engineering Practices as they advance in their study of science. As a family member, connect with your student’s teacher to identify and discuss specific areas of strength or areas of need. You may also want to visit the DEED website for science resources such as the Online Tools Training (OTT) and the *K–12 Science Standards for Alaska* – these standards provide information on what your student should know and be able to do.

Grade 10

Students who took the grade 10 Alaska Science Assessment should expect to continue developing knowledge related to Life Science and Physical Science and applying skills related to Science and Engineering Practices as they advance in their study of science. As a family member, connect with your student’s teacher to identify and discuss specific areas of strength or areas of need. You may also want to visit the DEED website for science resources such as the Online Tools Training (OTT) and the *K–12 Science Standards for Alaska* – these standards provide information on what your student should know and be able to do.

Alaska Science Assessment Student Report



Science Assessment

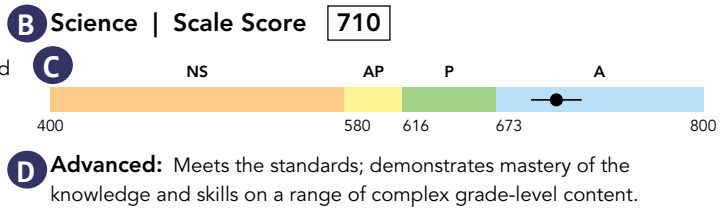
Alaska Department of Education
& Early Development

Student Report

Student: James R. Robinson	A	AKSID: 123456	District Name: Sample District
Grade: 5		Test Date: Spring 2023	School Name: Sample School

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 (●). The chart displays where the proficient cut score lies within the possible scale score range (400-800). If the student were to test again, the student's score would likely fall within the lines on either side of the circle. **For more information on the Alaska Science Assessment, visit education.alaska.gov/assessments/science.**



E Comparison to State, District, and School Performance

Subject	# Tested	Non-Proficient		Proficient		
		NS	AP	P	A	
James R. Robinson						710
Science	School (median)					740
	District (median)					721
	State (median)					729

NS - Needs Support
 AP - Approaching Proficient
 P - Proficient
 A - Advanced

F Performance by Reporting Category

Science Reporting Category	Performance
Life Science	★★★
Physical Science	★★★★
Earth and Space Science	★★★

G Performance Results Key

- ★★★★ *did better than* students who scored just barely proficient
- ★★★ *did about as well as* students who scored just barely proficient
- ★★ *did not do as well as* students who scored just barely proficient
- ★ *did not attempt* any items in this category

H Achievement Level Descriptors

Needs Support 400-579	Approaching Proficient 580-615	Proficient 616-672	Advanced 673-800
Student may partially meet the standards but needs support to master the knowledge and skills of current grade-level content.	Student partially meets the standards and may have gaps in knowledge and skills but is approaching mastery of some grade-level content.	Student meets the standards and demonstrates mastery of the knowledge and skills of most grade-level content.	Student meets the standards and demonstrates mastery of the knowledge and skills on a range of complex grade-level content.

For more information on grade-specific achievement level summaries, visit education.alaska.gov/assessments/achievement or scan the QR code



Reading the Alaska Science Assessment Student Report

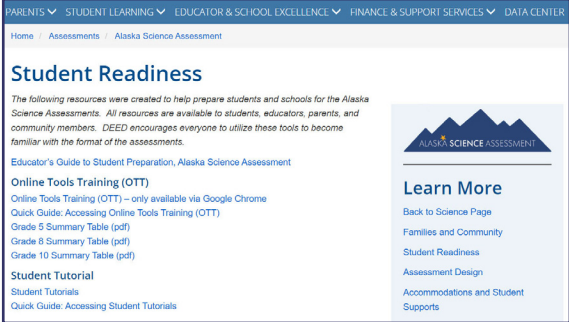
- A** This section presents student, school, and district information.
- B** The number in the box indicates the student’s scale score. *Please note:* If the student did not attempt the test or if the student did not receive a valid score, a Student Report will be generated. In these cases, ‘Did Not Attempt’ or ‘Invalid’ will display in the box based on the special circumstance code applied. Contact your school for more information about the specific circumstances.
- 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 side 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).
- 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.
- 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.
- D** This section describes the student’s achievement level as determined by the scale scores reported in **B**. Student performance on the Alaska Science Assessment is reported in one of four achievement levels. These levels describe the performance of the student on the standards tested at the grade level. The four achievement levels are:
- Advanced (A)**—Student meets the standards and demonstrates mastery of the knowledge and skills on a range of complex grade-level content.
- Proficient (P)**—Student meets the standards and demonstrates mastery of the knowledge and skills of most grade-level content.
- Approaching Proficient (AP)**—Student partially meets the standards and may have gaps in knowledge and skills but is approaching mastery of some grade-level content.
- Needs Support (NS)**—Student may partially meet the standards but needs support to master the knowledge and skills of current grade-level content.
- E** This section shows the student’s scale score and how it compares to median scores at the school, district, and state levels. The median represents the middle score in an ordered list of scores. Half the scores are above the median and half are below. The median is used instead of the mean (or average) because it is more stable if there are some extremely high or low scores in a group.
- F** This section shows a comparison of how the student performed in the reporting categories. The symbols indicate how the student performed compared to students who score just barely at the proficient level.
- G** This section shows the Performance Results Key, which provides the meaning of the number of stars that appear in the Reporting Category section. The *K–12 Science Standards for Alaska* are expressed as Performance Expectations that define what students should know and be able to do at the end of instruction. The Alaska science standards emphasize three distinct dimensions that help students learn science: the fundamental scientific knowledge, the practices scientists and engineers use to explain the world or solve problems, and scientific thinking across disciplines. Reporting categories are a subset of content knowledge and skills within a subject area. The reporting categories for grades 5 and 8 are Life Science, Physical Science, and Earth and Space Science. Grade 10 reporting categories are Life Science and Physical Science. You can use these reporting categories to start a conversation with your child’s teacher about their progress in science.

- H** This section provides general descriptions of what a student in this grade level can do at each achievement level. Find the student's achievement level at the top of the report and read the description to learn more about the content and skills that the student demonstrated and see what content and skills would be demonstrated by students reaching a higher achievement level on the Alaska Science Assessment. For more information on grade-specific achievement level summaries, please follow the URL or scan the QR code on the bottom of the Individual Student Report.

DEED encourages you to visit the [Alaska Science Assessment Results webpage](#) for further guidance on how the data and reports can be interpreted and understood.

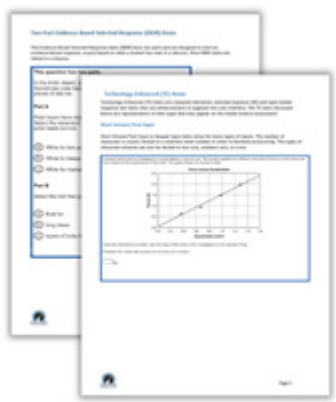
Resources

Science Student Readiness resources



The Alaska Science Assessment Student Readiness resources include the Educator Guide to Student Preparation, Student Tutorials, and the Online Tools Training (OTT).

Item Types



Specific item types students may see are outlined in the document linked above and are taken from the Science Online Tools Training.

*** Please click the title in [blue](#) to be directed to a link for each resource**