

Interpretive Guide to the Science Assessment Reports



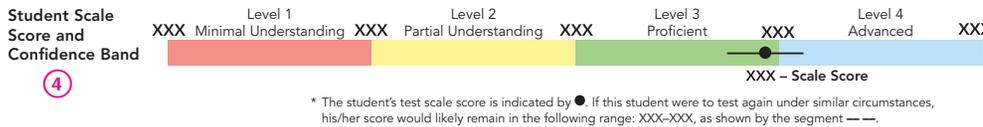
NEVADA
Student Assessment System
Science Assessment

① Student Report

Student: Student Name
Grade: XX State Student ID: XXXXXXXX District: Sample District
Birth Date: XX/XX/XXXX School: Sample School Test Date: Spring 2019

Achievement Levels				
Grade XX	Level 1 Minimal Understanding	Level 2 Partial Understanding	Level 3 Proficient	Level 4 Advanced
Science			② ✓	

Achievement Level Descriptors	Level 1 - The student has not met the expectations as defined by the grade level and course content standards. The student needs substantial improvement to be prepared for future coursework.	Level 2 - The student has not met the expectations as defined by the grade level and course content standards. The student needs academic support to be prepared for future coursework.	Level 3 - The student has met the expectations as defined by the grade level and course content standards. The student is prepared for future coursework.	Level 4 - The student has exceeded the expectations as defined by the grade level and course content standards. The student is well prepared for future coursework.
③				



How Student's Science Score Compares	Level 1	Level 2	Level 3	Level 4
Scale Score	XXX	XXX	XXX	XXX
Student			xxx	
School*		xxx		
District*		xxx		
State*		xxx		
	XXX	XXX	XXX	XXX

⑤

* A mean score is the average score calculated by adding the score values, dividing by the number of values, and rounding to the nearest whole number.

⑥ About the Nevada Science Assessment

The Science Assessment is one part of Nevada's statewide assessment program. All public school students in grades 5 and 8 must participate in this program. The Science Assessment is administered at your student's school once a year in the spring.

Why do your student's scores matter?

The Science Assessment is taken by students in grades 5 and 8 across Nevada, so the results give the unique opportunity to compare your student's scores to the learning expectations in

a fair and valid way. Such information can help teachers find the best ways to support your student's learning and can help schools identify the best ways to teach and help all students make progress.

Remember, since the Science Assessment is only one test of your student's knowledge and skill in school, you need to consider other information, such as grades and schoolwork, to gain a complete picture of how well your student is learning and preparing for the next grade.

① In Nevada, all students in grades 5, 8, and high school are required to take the Nevada State Science Assessment. The Science Assessment aligns to the Nevada Academic Content Standards for Science (NVACSS). Data Recognition Corporation (DRC) provides Nevada's criterion-referenced exams in Science.

② The check mark, located in one of the four Achievement Level boxes, represents the student's Achievement Level in Science. Students meeting grade-level standards will earn an Achievement Level of 3-4.

③ The Achievement Level Descriptors, located in the center of the report, provide a description of each possible Achievement Level (1-4) in Science.

④ In the Student Scale Score and Confidence Band, the dot represents the student's scale score from this exam. The scale score is the overall score on this assessment.

The lines on either side of the dot represent the score range in which the student would likely remain were they to take the assessment again under similar circumstances.

⑤ The bar graph, located near the bottom of the report, represents comparisons between the student and the mean scores of other students who took the same assessment in their school, their district, and the state.

*Note: a mean score is the average score calculated by adding the score values, dividing by the number of values, and rounding to the nearest whole number.

⑥ The "About the Nevada Science Assessment" section provides an overview of the purpose of the Nevada Science Assessment and an explanation of why student scores matter with regards to student progress. If you would like to learn more about this assessment please visit the NDE Science Assessment webpage (doe.nv.gov/Assessments/Science/).

Para información en español, visite http://www.doe.nv.gov/Assessments/Resultados_en_Espanol/

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Three Dimensions of Science Learning ⁷

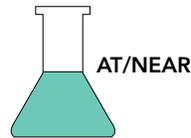
The student's overall achievement level and scale score are determined by student performance in the three areas of focus tested in the 2019 Science Assessment. Together, these topics build a foundation for a cohesive understanding of science over time. Student levels of mastery for each of these three areas are shown below.

The Nevada Academic Content Science Standards (NVACSS) are based on the Next Generation Science Standards (NGSS) being taught in classrooms across the country. These research-based standards set the expectations for what students should know and be able to do and are intended to improve science education for all students.

Science and Engineering Practices ⁸

Practices are actions scientists engage in as they gather evidence, reason, and communicate while investigating the natural world. Engineers also use similar actions during the design and construction of models and systems.

Scientists and engineers gather evidence and use their reasoning skills to explain the world around them. These practices link science, technology, engineering, and mathematics to everyday life, and include problem solving, modeling, conducting experiments, and communicating.

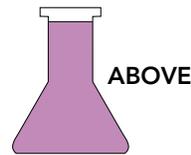


Disciplinary Core Ideas ⁹

Disciplinary Core Ideas are the fundamental ideas that are necessary for understanding a given science discipline. The core ideas all have broad importance within or across science or engineering disciplines and provide a key tool for understanding or investigating complex ideas and solving problems.

These core ideas are important in understanding and investigating complex ideas, and problem solving. They include:

- Physical Sciences
- Life Sciences
- Earth and Space Sciences
- Engineering Design

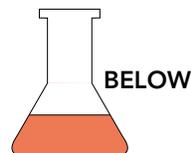


Crosscutting Concepts ¹⁰

Crosscutting Concepts are a way of linking different domains of science. These concepts are present and integrated within each of the science disciplines and underlie their learning and practice.

These concepts are found in each of the science disciplines. They connect the different sciences and help students learn and practice the different sciences. Crosscutting concepts can be placed into two categories:

- Causality, Patterns, and Connections
- Systems and System Models



Performance Key ¹¹



For more information about the Nevada Academic Content Standards, talk to your teacher or see www.doe.nv.gov/Standards_Instructional_Support/.

⁷ The *Three Dimension of Science Learning* are derived from the Nevada Academic Content Standards for Science (NVACSS) and build a powerful foundation to help students build cohesive understanding of science over time.

⁸ The “*Science and Engineering Practices*” Dimension of Science Learning assesses the student’s ability to gather information from a variety of sources, reason in a logical and process-oriented way, and to communicate information in an effective, efficient, and accurate way.

⁹ The “*Disciplinary Core Ideas*” Dimension of Science Learning assesses the student’s ability to demonstrate their understanding of Life Science, Physical Science, and Earth and Space Science standards in the Nevada Academic Content Standards for Science (NVACSS).

¹⁰ The “*Crosscutting Concepts*” Dimension of Science Learning assesses the student’s ability to utilize and apply concepts present across all science disciplines including causality, patterns, and systems.

¹¹ The *Performance Key* describes meaning of the fill level of the flasks.

- “Below Standard” indicates that the student has not met the Nevada Academic Content Standard for Science associated with the indicated reporting category.
- “At/Near Standard” indicates that the student has met or has nearly met the Nevada Academic Content Standard for Science associated with the indicated reporting category.
- “Above Standard” indicates that the student has exceeded the Expectation of the Nevada Academic Content Standard for Science associated with the indicated reporting category.