

California Science Test: What Do the Scores Mean?



The California Science Test (CAST) is part of the California system of student assessment called the California Assessment of Student Performance and Progress (CAASPP). The CAST measures what students know and can do using the California Next Generation Science Standards (CA NGSS), which focus on understanding the scientific ideas, practices, and concepts found in each science domain: Earth and Space Sciences, Life Sciences, and Physical Sciences. The CAST is administered in grades five and eight and once in high school.

The CAST is a computer-based test that consists of stand-alone questions as well as performance tasks. Performance tasks require students to solve a series of related questions and are designed to provide a deep measurement of a single science phenomenon.

Test Scores

A student's test is scored based on the number and difficulty of questions answered correctly. The CAST scores are reported for the entire test (overall score) as well as for each science domain.

Interpretation and Use

A student's overall performance is categorized into one of four achievement levels, which describe the relative accuracy and complexity of their performance within their grade level.

Level 4: Advanced—The student demonstrates advanced grade-level knowledge and skills and shows a sophisticated understanding of and ability to apply the knowledge and skills associated with the performance expectations of the CA NGSS.

Level 3: Proficient—The student demonstrates proficient grade-level knowledge and skills and shows a thorough understanding of and ability to apply the knowledge and skills associated with the performance expectations of the CA NGSS.

Level 2: Developing—The student demonstrates developing grade-level knowledge and skills and shows an initial understanding of and ability to apply the knowledge and skills associated with the performance expectations of the CA NGSS.

Level 1: Minimal—The student demonstrates minimal grade-level knowledge and skills and shows a limited understanding of and ability to apply the knowledge and skills associated with the performance expectations of the CA NGSS.

Policymakers can use CAST results to help describe statewide student performance and to help focus state resources to best impact student outcomes.

Educators can use results, along with information from interim assessments, to help identify performance patterns among their students and to inform decisions about curriculum investments and district supports.

Families and students can use results to support conversations with students' teachers about opportunities for their students to benefit from additional support.