

Understanding the SAT Analysis in Science Score

Ensuring students have mastered science reasoning skills is essential for success in college and careers, particularly for students interested in pursuing opportunities in science, technology, engineering, and math (STEM).

What does the Analysis in Science Score mean?

The Analysis in Science (AiS) score is based on student performance on select science-related questions from the SAT Reading and Writing and Math sections. With a range of 50–70 and an average score of around 60, the SAT Analysis in Science score reflects how well students demonstrate the science reasoning skills needed for success in science courses. In a recent study, students with a score of 59-62 earned an average 3.1 GPA in their first-semester science, technology, and math college courses.

How Science Is Tested on the SAT

The SAT assesses science skills efficiently by measuring them throughout the Reading and Writing and Math sections as opposed to requiring students to take an additional science section and increasing testing time by 35 to 40 minutes. The Analysis in Science score on the SAT measures critical thinking and problem-solving skills, as well as the ability to apply an understanding of aspects of scientific reasoning necessary to achieve success in science courses. Science passages in the SAT Reading and Writing section exhibit key features of scientific texts, including the presentation and discussion of experimental and observational studies, such as hypotheses, methodology, data, findings, and implications. The SAT Math section contains questions set in science contexts and others requiring students to use additional skills commonly called on in science classes.

The following skills assessed in the Analysis in Science domain represent a broad range of reasoning processes grounded in science and reflect those found in Kentucky's science standards:

- Analyzing and evaluating summaries of authentic scientific research studies, including
 - Understanding and making use of elements of the scientific method, including problem statements, hypotheses, methodology and data collection, findings, and implications
 - Tracing aspects of scientific reasoning
 - Identifying hypotheses and other forms of scientific claims
 - Locating and analyzing relevant experimental and observational data represented in words as well as in informational graphics
 - Understanding findings gathered from experiments and observational studies
 - Using experimental and observational data to evaluate hypotheses
 - Assessing the scientific and practical implications of research findings
- Comparing scientific viewpoints
- Creating and using algebraic equations, functions, and inequalities to model relationships and solve problems in scientific contexts
- Interpreting algebraic equations, functions, and inequalities (and/or portions thereof) in scientific contexts
- Computing unit conversions; using derived units; computing with ratios, proportions, and scales; identifying equations for a line of best fit; reading, analyzing, and interpreting data; making inferences from sample statistics.