2024 | 2025

PreACT

Interpretive Guide

for Student and Aggregate Reports - North Carolina

Pre ACT®

www.act.org/preact

PREACT CONTACTS AND RESOURCES

Contact Information

PreACT Customer Support

- Toll-free phone number: 800.525.3731, option 3
- Phone number for hearing impaired: 319.337.1524

Note: The toll-free numbers are for testing staff. ***Please do not give these numbers to examinees or parents.***

Resources

Website	URL
North Carolina PreACT product page	**act.org/stateanddistrict/preact/northcarolina**
PreACT Knowledge Hub	**https://success.act.org/s/topic/0TO1B000000UAxzWAG/preact**
ACT Privacy Policy	**act.org/content/act/en/privacy-policy.html**
ACT Calculator Policy	**act.org/calculator-policy.html**

Contents

INTRODUCTION

This Interpretive Guide is designed to help you understand and effectively use individual student score reports, data from roster reports, and summary reports of aggregated data, all of which are provided as a standard service. Please keep the following cautions in mind:

- Numerous social, economic, and instructional factors are known to contribute to educational achievement. Relatively few of these factors are represented in these reports. Conclusions about educational programs or policies at your school, based on student achievement, should be supported by information from additional sources.
- In making decisions or drawing conclusions based on differences among groups of students, caution must be employed when the number of students in any group is small. Aggregate measures of student achievement are less precise for smaller groups.
- When sharing results with others, identify the population represented by the report. For example, conclusions regarding your entire class are appropriate only if all, or nearly all, of your students participated in the program, or you have determined that those who took the test are representative of the class as a whole.
- The predicted ACT score ranges assume that students will take the ACT test in the spring of 11th grade and have typical academic growth.

OVERVIEW

The PreACT Program

Tests

PreACT includes four multiple-choice test sections—English, math, reading, and science—that last 30, 40, 30, and 30 minutes, respectively. A complete description of the tests and program components is provided in Appendix A of this Interpretive Guide.

Score Scale for PreACT

The number of questions answered correctly is counted to obtain a raw score on each test section, which is then converted to a scale score. Scale scores for the four test sections, the Composite score, and the STEM score range from a low of 1 to a high of 35. Composite scores are calculated by rounding the unweighted average of the four test section scale scores. STEM scores are calculated by rounding the unweighted average of the math and science scale scores. PreACT scale scores can be compared directly to the ACT scale scores for each of the corresponding tests (e.g., PreACT English to ACT English).

National Norms

PreACT national norms are percentile ranks obtained from weighted samples of students who tested in the most recent three years. The percentile ranks can help you understand how your scores compare to those earned by recent students who tested nationwide. The norms reported are specific to grade level and season (fall or spring) and representative of examinees across the nation who take the ACT test. Visit **https://success.act.org/s/article/PreACT-and-PreACT- 89-US-Ranks** for more information on the norms. The norms are typically updated each year.

Student Information

The student's name, birth date, and student identification number are collected on the answer document. In North Carolina, students are instructed to provide demographic information as detailed in the *2024-2025 Instructions for Completing Your Answer Document North Carolina* and the *PreACT Administration Supplement* available on the ACT-hosted state web page.

Student Planning Guide

Using Your PreACT Results is a planning guide which includes an explanation of information provided on the Individual Student Report. Each examinee is able to access this guide at **https://www.act.org/content/dam/act/secured/documents/PreACT-Using-Your-PreACT-Results-NC.pdf**. The guide is also available in Spanish at **https://www.act.org/content/dam/act/secured/documents/PreACT-Using-Your-PreACT-Results-Spanish-NC.pdf**. For more detailed information about the PreACT test and how it can be used with other ACT assessments, please see Appendix A of this *Interpretive Guide*.

PREACT REPORTS

Online Reporting

PreACT reports include the Individual Student Report, Roster and Summary reports, and tools for data analysis and downloading data. **All reports are available through ACT's online reporting tool**. For each Roster and Summary report, tools are provided for sorting, filtering, and customization of data presented. Below, we describe each type of report.

Roster reports present data for individual students.

- **Student Scores** list each student along with their test scores and predicted ACT scores.
- **Individual Student Reports** can be generated and downloaded as PDFs from the Student Scores report. Later in this guide, we describe the different components of the student reports.
- **Early Intervention Rosters** list students and their test scores. Different rosters are provided for different intervention uses.

Summary reports provide aggregated data for different groups of students. Results are aggregated by testing year, season (Fall or Spring), and grade level. More details on the summary reports are provided later in this guide.

Data Tools provide summary statistics, frequency distributions, cross-tabulations, and scatter plots to support additional data analysis.

Download Hub allows users to download the complete student-level data file for additional analysis or integration with other data systems. The data file layout is provided at **https://success.act.org/s/article/PreACT-and-PreACT-8-9-Data-File-Layouts**.

UNDERSTANDING PREACT REPORTS

Interpreting Results

Understanding Individual Student Reports

Students who complete the test receive four test section scores, a Composite score, and a STEM score. Reports show how each score compares to the PreACT Readiness Levels and Benchmarks. Reports also include a predicted ACT score range for each test section, the Composite score, and the STEM score. Students with a valid Composite score also receive an indicator of Progress Toward the ACT National Career Readiness Certificate (ACT NCRC). The ACT NCRC is an assessment-based credential that documents foundational work skills important for job success across industries and occupations. Individual Student Score Reports will be printed and shipped to schools, additional reports will be available on ACT's online reporting tool.

ACT College Readiness Benchmarks

The ACT College Readiness Benchmarks are scores on the ACT test that represent the level of achievement required for students to have a 50% chance of obtaining a B or higher or about a 75% chance of obtaining a C or higher in corresponding credit-bearing first-year college courses. These college courses include English Composition I, College Algebra, introductory social science courses, and Biology. For STEM, the college courses include Calculus and first-year science courses taken by students majoring in a STEM-related field, including Chemistry, Biology, Physics, and Engineering. The current ACT College Readiness Benchmarks are given in the section **PreACT Suite Readiness Benchmarks and Levels**.

The ACT College Readiness Benchmarks can be used to determine the academic areas in which students are ready for college coursework and areas in which they may need more work. Although the Benchmarks are useful predictors of success in first-year college courses, ACT scores above the cutoffs do not guarantee success. Factors other than academic preparedness, such as motivation and good study habits, are also important to success in college.

PreACT Readiness Benchmarks and Levels

Because students' achievement is expected to grow over time, students who score below the ACT College Readiness Benchmarks on PreACT may still be on target to meet the benchmarks in grade 11 or 12. One way the PreACT can be used to evaluate student readiness is through the PreACT Readiness Levels. The Readiness Levels categorize scores into one of three levels:

1. On Target—students in this range are estimated to have a 50% or higher probability of meeting the ACT College Readiness Benchmark in 11th or 12th grade. The Readiness Benchmarks are the minimum scale scores for this level.
2. Close to Target—these students have less than a 50% probability, but greater than 25% probability, of meeting the ACT College Readiness Benchmark in 11th or 12th grade.

3. In Need of Intervention—these students have less than a 25% chance of meeting the ACT College Readiness Benchmark in 11th or 12th grade.

The Readiness Benchmarks are the scores needed to be on target to meet the ACT College Readiness Benchmarks and are the minimum scale scores for the On Target Range.

PreACT Readiness Benchmarks and Levels (continued)

Grade / Season of PreACT test	Subject	PreACT Readiness Level			PreACT Readiness Benchmark	ACT Benchmark
		In Need of Intervention	Close to Target	On Target		
9th Grade Fall	English	1–8	9–11	12–30	12	18
	Math	1–14	15–16	17–30	17	22
	Reading	1–14	15–17	18–30	17	22
	Science	1–15	16–18	19–30	18	23
	STEM	1–18	19–20	21–30	21	26
9th Grade Spring	English	1–9	10–12	13–30	13	18
	Math	1–15	16–17	18–30	18	22
	Reading	1–14	16–18	19–30	18	22
	Science	1–16	17–18	19–30	19	23
	STEM	1–19	20–21	22–30	22	26
10th Grade Fall	English	1–10	11–13	14–35	14	18
	Math	1–16	17–18	19–35	19	22
	Reading	1–16	17–19	20–35	19	22
	Science	1–17	18–19	20–35	20	23
	STEM	1–20	21–22	23–35	23	26
10th Grade Spring	English	1–11	12–14	15–35	15	18
	Math	1–16	17–18	19–35	19	22
	Reading	1–17	18–20	21–35	20	22
	Science	1–18	19–20	21–35	20	23
	STEM	1–20	21–22	23–35	24	26
11th Grade Fall	English	1–12	13–15	16–35	16	18
	Math	1–17	18–19	20–35	20	22
	Reading	1–18	19–21	22–35	21	22
	Science	1–19	20–21	22–35	21	23
	STEM	1–21	22–23	24–35	24	26

Predicted ACT Score Ranges

The predicted ACT score ranges are only provided for the PreACT test sections completed. If a student does not have a valid Composite score or STEM score, a predicted ACT Composite score range or STEM score range cannot be determined. When using the Readiness Levels or the predicted ACT score ranges, it is important to remember typical student growth is assumed when deriving these values. Improved study habits or taking more challenging courses will improve students' chances of scoring above the predicted ACT scores. Additionally, prediction accuracy may be compromised for students who do not make a serious effort when taking the test. PreACT scores should be viewed cautiously if there is reason to believe the student performed substantially below their potential.

Progress Toward the ACT National Career Readiness Certificate

The Progress Toward the ACT National Career Readiness Certificate indicator provides students with information about their level of career readiness based on their Composite scores. More specifically, this indicator predicts the ACT National Career Readiness Certificate (NCRC) level that students are likely to obtain in 12th grade. Using a large sample of students who took PreACT before taking the ACT WorkKeys assessment, this prediction was established by linking students' Composite scores from grades 8-11 with the NCRC level they earned. The following table shows the PreACT Composite score ranges that correspond to different predicted NCRC levels. The values are subject to change as updates are made to the predictions.

Composite Score Range Corresponding to Predicted NCRC Levels

Predicted NCRC Level	PreACT Composite Score Range		ACT Composite Score Range
	Grade 9	Grade 10	
Below Bronze	1–8	1–9	1–12
Bronze	9–13	10–14	13–16
Silver	14–17	15–19	17–21
Gold	18–21	20–24	22–26
Platinum	22–35	25–35	27–36

Note: To learn more about the ACT NCRC, visit **https://www.act.org/NCRC-indicator**.

Additional Information

More information to help students with college and career planning is available on the ACT website at **https://www.act.org/content/act/en/students-and-parents.html**. The planning guide, *Using Your PreACT Results*, also provides explanations and suggestions for using the results. Because PreACT and the ACT use the same score scale, the ACT College and Career Readiness Standards may be used to infer descriptions of the knowledge and skills associated with a PreACT or score. The ACT College and Career Readiness Standards are provided at **https://www.act.org/standards**.

Understanding Your Summary Reports

PreACT reports include Roster and Summary reports, as well as tools for data analysis and downloading data. For each report, tools are provided for sorting, filtering, and customization of data presented. Below, we describe each type of report.

Roster reports present data for individual students.

- **Student Scores** list each student along with their test scores and predicted ACT scores.

Summary reports provide aggregated data for different groups of students. Results are aggregated by testing year, season (Fall or Spring), and grade level.

- **My Summary Results** summarizes performance on each section of the test (including STEM and Composite). It reports mean scores and the percentage of students scoring at each readiness level.
- **Item Response Summary** lists the reporting category for each question (item) on the test, provides the correct response, and reports the percentage of students for each item response option.
- **Local Quartile** reports the percentage of students scoring within each national quartile (first quartile: national percentile ranks of 1-24, second quartile: national percentile ranks of 25-49, third quartile: national percentile ranks of 50-74, fourth quartile: national percentile ranks of 75-100). It also provides the range of test scores for each quartile.

Data Tools provide summary statistics, frequency distributions, cross-tabulations, and scatter plots to support additional data analysis.

Download Hub allows users to download the complete student-level data file for additional analysis or integration with other data systems. The data file layout is provided at **https://success.act.org/s/article/PreACT-and-PreACT-8-9-Data-File-Layouts**.

College and Career Readiness Standards

You just received the reports, and you may be wondering what the test results really mean. In other words, what do the test scores tell you about what students are likely to know and to be able to do?

To help answer these questions, ACT provides information in the form of **ACT College and Career Readiness Standards**. The Standards, developed for the ACT, can also be used to describe the types of knowledge and skills typically demonstrated by students who score in particular score ranges on each test section of PreACT. The **Ideas for Progress** on the Student Report are based on these Standards.

Q. What are the ACT College and Career Readiness Standards?

A. The ACT College and Career Readiness Standards are sets of statements that represent widely held learning goals or expectations of what students have learned that are important for success in high school and beyond. The Standards show how students' skills can progress, becoming increasingly sophisticated from score range to score range. You may view the Standards at **https://www.act.org/standards**.

The Standards address all four academic areas measured in PreACT: English, math, reading, and science. For PreACT, standards are provided for six score ranges along the PreACT score scale (13–15, 16–19, 20–23, 24–27, 28–32, and 33–35).

If students in your school obtain a score between 1 and 12, they are most likely beginning to develop the knowledge and skills described in the 13–15 score range for that particular test section.

Q. Why are College and Career Readiness Standards needed?

A. The purpose of the Standards is to help high school counselors, classroom teachers, and administrators, as well as students and their parents, better understand how the scores relate to the kinds of skills needed for success in high school and beyond.

Q. How should the College and Career Readiness Standards be interpreted and used?

A. The Standards provide a list of statements that describe what students are likely to know and to be able to do if they score in specific score ranges. The Standards are cumulative, which means that if students score, for example, in the 16–19 range on the English test, they are likely to demonstrate most or all of the skills and understandings in the 13–15 and 16–19 score ranges. Students can use the Standards to help select courses to take in high school

based on the types of knowledge and skills they will need to develop to be prepared for the future.

Because no one test form measures all of the knowledge and skills included in any particular Standard, the Standards must be interpreted as knowledge and skills that most students who score in a particular score range are likely to be able to demonstrate. Since there were very few items in the lowest range that were answered correctly by 80% or more of the students, the Standards in this range should be interpreted cautiously. Students who obtain scale scores of 12 or below are in the process of developing the knowledge and skills described in the 13–15 score range, but they may not as yet be able to demonstrate consistent achievement of them.

It is important to remember that PreACT does not measure everything students have learned in middle school, junior high and high school, nor does any particular test form measure everything necessary for students to know to be successful in high school. PreACT includes a wide range of knowledge and skills that have been judged to be important for success in high school and beyond. The Standards should be interpreted in a responsible way and be used together with other information about students' knowledge and skills to better understand what they will need to be successful in high school and beyond.

GLOSSARY

Overview of PreACT Terms

General Terms

Core: A typical college-preparatory curriculum including a minimum number of years of study in the subject areas listed below. Similar preparation may be helpful to students entering other training or preparation programs after high school.

- English—4 years or more
- Math—3 years or more
- Social Studies—3 years or more
- Natural Sciences—3 years or more

Statistical Terms

Mean (Average): The sum of a set of scores divided by the total number of scores.

N, N-Count: Number of students. Typically, this refers to the number of student records on which a particular table or data element is based.

Percent: The number of students who gave a certain response, or who obtained a certain scale score, divided by the total number of students, and then multiplied by 100.

Cumulative Percent (CP): A number used to describe the standing of an individual relative to a defined group. If a student with a score of 16 has a CP of 73, it means that 73% of the students in the norm group received a score of 16 or lower, or that the student scored the same as or better than 73% of the students in the norm group.

Standard Deviation (SD): The amount of variability (spread) of scores present in a specified group. The greater the spread in scores, the larger the standard deviation.

Scale Scores: Scores to adjust for differences in test difficulty and to ensure comparability of scores across different forms of the PreACT tests. An examinee's raw score is obtained by counting the number of items he/she answered correctly. The raw score is then converted to a scale score. In this document, scale scores and test scores are used interchangeably.

APPENDIX A:
PreACT Test Sections

PreACT contains four test sections—English, math, reading, and science (see Figure 1). These tests are designed to measure students' curriculum-related knowledge and the complex cognitive skills important for future education and careers. PreACT results provide students with information that can help them begin making plans for high school and beyond.

ACT conducted a detailed analysis of three sources of information to determine which knowledge and skills would be measured by PreACT : objectives for instruction in grades 7 through 12 (for all states with published objectives), textbooks on state-approved lists for courses in grades 7 through 12, and input from educators regarding the knowledge and skills taught in grades 7 through 12 that are prerequisite to successful performance in high school and later years. Information from these sources helped to define a scope and sequence for each of the areas measured by PreACT.

PreACT Test Sections at a Glance

ENGLISH TEST

(45 items, 30 minutes testing time)

Content/Skills Covered by Test	Number of Items
Production of Writing	13–15
Knowledge of Language	6–8
Conventions of Standard English	23–25
Total	45

MATH TEST

(36 items, 40 minutes testing time)

Content/Skills Covered by Test	Number of Items
Preparing for Higher Math	21
Integrating Essential Skills	15
Total	36

Note: At least 10 of the 36 math items also belong to a reporting category called Modeling. The 21 items in the Preparing for Higher Math reporting category are divided among five subcategories: Number & Quantity (3), Algebra (5), Functions (5), Geometry (5), and Statistics & Probability (3).

READING TEST

(25 items, 30 minutes testing time)

Content/Skills Covered by Test	Number of Items
Key Ideas & Details	13–15
Craft & Structure	7–9
Integration of Knowledge & Ideas	3–4
Total	25

SCIENCE TEST

(30 items, 30 minutes testing time)

Content/Skills Covered by Test	Number of Items
Interpretation of Data	6–12
Scientific Investigation	5–12
Evaluation of Models, Inferences & Experimental Results	6–12
Total	30

Note: Four content areas (Earth/Space Sciences, Biology, Chemistry, and Physics) are represented in the science test. The content areas are distributed over the different formats in such a way that at least one unit, and no more than two units, represent each content area.

Total number of PreACT test items = 136

Total testing time for four test sections = 130 minutes

English Test

The English test measures students' understanding of the conventions of standard written English (punctuation, usage, and sentence structure), production of writing (topic development, organization, unity, and cohesion), and knowledge of language (word choice, style, and tone). The test consists of three essays, or passages, each accompanied by a sequence of multiple-choice test questions. Different passage types are employed to provide a variety of rhetorical situations. Spelling, vocabulary, and rote recall of grammar rules are not tested.

Some items refer to underlined portions of the passage and offer several alternatives to the underlined portion. Students must decide which choice is most appropriate in the context of the passage. Some items ask about an underlined portion, a section of the passage, or the passage as a whole. Students must decide which choice best answers the question posed. Many items offer "NO CHANGE" to the passage as one of the choices.

For PreACT, four scores are reported for the English test: a total score based on all 45 items, and three reporting categories and percentages based on specific knowledge and skills. The reporting categories are Conventions of Standard English, Production of Writing, and Knowledge of Language.

The three reporting categories cover six elements of effective writing: punctuation; usage; sentence structure and formation; topic development; organization, unity, and cohesion; and knowledge of language. These six elements are described briefly below.

Conventions of Standard English

Punctuation: Recognize common problems with standard English punctuation and make revisions to improve the writing.

Usage: Recognize common problems with standard English usage in a text and make revisions to improve the writing.

Sentence Structure and Formation: Apply understanding of sentence structure and formation in a text and make revisions to improve the writing.

Production of Writing

Topic Development: Demonstrate an understanding of, and control over, the rhetorical aspects of texts. Identify the purposes of parts of texts, determine whether a text or part of a text has met its intended goal, and evaluate the relevance of material in terms of a text's focus.

Organization, Unity, and Cohesion: Use various strategies to ensure that a text is logically organized, flows smoothly, and has an effective introduction and conclusion.

Knowledge of Language

Demonstrate effective language use through ensuring precision and concision in word choice and maintaining consistency in style and tone.

Math Test

The math test is designed to assess the mathematical skills students have typically acquired in courses taken up to the beginning of 12th grade, with an emphasis on Grade 8-10 skills. The material covered on the test emphasizes the major content areas that are prerequisites to successful performance in entry-level courses in college math. The test requires use of quantitative reasoning skills to solve practical problems in math. While students must demonstrate some computational skills and recall of basic formulas, extensive computation and recall of complex formulas will not be required.

The eight reporting categories for the math test are described below. All categories include applications, mathematical practices, and a range of complexity.

Preparing for Higher Math: This category captures the more recent math that students are learning, starting when students begin using algebra as a general way of expressing and solving equations. This category is divided into the following five subcategories.

- **Number & Quantity:** Demonstrate knowledge of real and complex number systems. Understand and reason with numerical quantities in many forms, including integer and rational exponents, and vectors and matrices.
- **Algebra:** Solve, graph, and model multiple types of expressions. Employ many different kinds of equations, including linear, polynomial, radical, and exponential relationships. Find solutions to systems of equations, even when represented by simple matrices, and apply knowledge to applications.
- **Functions:** Use knowledge of function definition, notation, representation, and application. Manipulate and translate functions, as well as find and apply important features of graphs. Function types include linear, radical, piecewise, polynomial, and logarithmic.
- **Geometry:** Define and apply knowledge of shapes and solids, such as congruence and similarity relationships or surface area and volume measurements. Understand composition of objects, and solve for missing values in triangles, circles, and other figures, including using trigonometric ratios and equations of conic sections.
- **Statistics & Probability:** Describe center and spread of distributions, apply and analyze data collection methods, understand and model relationships in bivariate data, and calculate probabilities, including the related sample spaces.

Integrating Essential Skills: This category addresses concepts typically learned before 8th grade, such as rates and percentages; proportional relationships; area, surface area, and volume; average and median; and expressing numbers in different ways. Students will solve

problems of increasing complexity, combine skills in longer chains of steps, and apply skills in more varied contexts.

Modeling: This category represents all items that involve producing, interpreting, understanding, evaluating, and improving models. This category is an overall measure of how well students use modeling skills across mathematical topics. Not all test items are in this category, but those that are in this category are also counted in other appropriate reporting categories detailed above.

Some degree of computational fluency is required. A calculator is encouraged but not required. Items are designed so that a sophisticated calculator does not provide a significant advantage over a four-function calculator. Items are also designed so that all problems can be done without a calculator in a reasonable amount of time. Students who use a calculator should use one with which they are most familiar. Please refer to the ACT Calculator Policy found at **https://success.act.org/s/article/ACT-calculator-policy** for specific limitations on student calculator use.

Reading Test

The reading test measures the student's reading comprehension. The test items ask students to derive meaning from three reading passages by referring to what is explicitly stated and reasoning to determine implicit meanings. Specifically, items ask students to use referring and reasoning skills to determine main ideas; locate and interpret significant details; understand sequences of events; make comparisons; comprehend cause-effect relationships; determine the meaning of context-dependent words, phrases, and statements; draw generalizations; and analyze the author's or narrator's voice and method. The test includes a mix of literary narrative and informational passages that are representative of the levels and kinds of texts commonly encountered in 11th–12th grade and first-year college curricula. Each passage is preceded by a heading that identifies what type of passage it is (e.g., "Literary Narrative"), names the author, and may include a brief note that helps in understanding the passage. Each passage is associated with a set of multiple-choice test items. These items do not test the rote recall of facts for outside the passage, isolated vocabulary terms, or rules of formal logic.

For PreACT, four scores are reported for the reading test: a total score based on all 25 items, and three reporting category scores based on specific knowledge and skills. The reporting categories are Key Ideas and Details, Craft and Structure, and Integration of Knowledge and Ideas.

Key Ideas and Details: Read texts closely to determine central ideas and themes. Summarize information and ideas accurately. Read closely to understand relationships and draw logical inferences and conclusions including understanding sequential, comparative, and cause-effect relationships.

Craft and Structure: Determine word and phrase meanings, analyze an author's word choice rhetorically, analyze text structure, understand authorial purpose and perspective, and analyze characters' points of view. Interpret authorial decisions rhetorically and differentiate between various perspectives and sources of information.

Integration of Knowledge and Ideas: Understand author's claims, differentiate between facts and opinions, and use evidence to make connections between different texts that are related by topic. Some questions will require students to analyze how authors construct arguments, evaluating reasoning and evidence from various sources.

Science Test

The science test measures scientific reasoning skills acquired in general introductory courses in the natural sciences. The test presents five sets of scientific information, each followed by a number of multiple-choice test items. The scientific information is conveyed in one of three different formats: data representation (graphs, tables, and other schematic forms), research summaries (descriptions and results of several related experiments), or conflicting viewpoints (expressions of several related hypotheses or views that are inconsistent with one another). The items require students to recognize and understand the basic features of, and concepts related to, the provided information; to examine critically the relationships

between the information provided and the conclusions drawn or hypotheses developed; and to generalize from given information to gain new information, draw conclusions, or make predictions.

The science test is based on the type of content typically covered in early high school science courses. Materials are drawn from biology, chemistry, the Earth/space sciences, and physics. Advanced knowledge in these subjects is not required, but background knowledge that is typically covered in early high school general science courses is needed to answer some of the items. The test emphasizes scientific reasoning skills over recall of scientific content, skill in math, or skill in reading. Students are not permitted to use calculators on the science test.

The three reporting categories addressed in the science test are Interpretation of Data; Scientific Investigation; and Evaluation of Models, Inferences and Experimental Results.

Interpretation of Data: Manipulate and analyze scientific data presented in tables, graphs, and diagrams (e.g., recognize trends in data, translate tabular data into graphs, interpolate and extrapolate, and reason mathematically).

Scientific Investigation: Understand experimental tools, procedures, and design (e.g., identify variables and controls) and compare, extend, and modify experiments (e.g., predict the results of additional trials).

Evaluation of Models, Inferences and Experimental Results: Judge the validity of scientific information and formulate conclusions and predictions based on that information (e.g., determine which explanation for a scientific phenomenon is supported by new findings).