ACT® Assessment Overview

ACT®

English

The subject test score for the English test is on a scale of 1-36. There are three reporting category scores reported: Production of Writing, Topic Development, and Organization, Unity and Cohesion. In addition, the English subject test score, along with the reading and writing subject test scores, is used to determine the English Language Arts (ELA) score.

Reporting Categories

Production of Writing (POW):

Students apply their understanding of the rhetorical purpose of a piece of writing to develop a topic effectively and use various strategies to achieve logical organization, topical unity, and general cohesion.

- **Topic Development:** Students demonstrate an understanding of, and control over, the rhetorical aspects of texts by identifying the purposes of parts of texts, determining whether a text or part of a text has met its intended goal, and evaluating the relevance of material in terms of a text's focus.
- **Organization, Unity, and Cohesion:** Students use various strategies to ensure that a text is logically organized, flows smoothly, and has an effective introduction and conclusion.

Knowledge of Language (KLA):

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

Conventions of Standard English (CSE):

Students apply an understanding of the conventions of Standard English grammar, usage, and mechanics to revise and edit text.

- **Sentence Structure and Formation:** Students apply an understanding of relationships between and among clauses, placement of modifiers, and shifts in sentence construction.
- **Usage:** Students edit text to conform to Standard English usage.
- **Punctuation:** Students edit text to conform to Standard English punctuation.

Table 1. Specification Ranges by Item Type and Reporting Category for English

45 minutes

	Number of Items	Percentage of Test
Reporting Categories		
Production of Writing	22-24	29-32%
Knowledge of Language	11-13	15-17%
Conventions of Standard English	39-41	52-55%
Depth of Knowledge (DOK)		
DOK Level 1	22-30	30-40%
DOK Level 2	15-18	20-24%
DOK Level 3	25-31	33-41%
Total Number of Items	**75**	**100%**

Reading

The subject test score for the reading test is on a scale of 1-36. There are three reporting category scores reported: Key Ideas & Details, Craft & Structure, and Integration of Knowledge & Ideas. In addition, the reading subject test score, along with the English and writing test scores, is used to determine the ELA score.

Reporting Categories

Key Ideas and Details (KID):
Students read texts closely to determine central ideas and themes; summarize information and ideas accurately; and read closely to understand relationships and draw logical inferences and conclusions, including understanding sequential, comparative, and cause-effect relationships.

Craft and Structure (CS):
Students 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. They interpret authorial decisions rhetorically and differentiate between various perpsectives and sources of information.

Integration of Knowledge and Ideas (IKI):
Students understand authors' claims, differentiate between facts and opnions, 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.
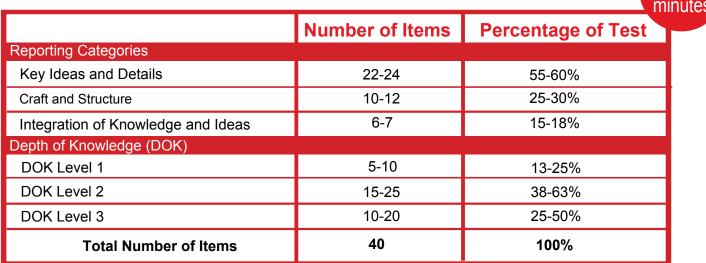
35 minutes

Table 2. Specification Ranges by Item Type and Reporting Category for Reading

	Number of Items	Percentage of Test
Reporting Categories		
Key Ideas and Details	22-24	55-60%
Craft and Structure	10-12	25-30%
Integration of Knowledge and Ideas	6-7	15-18%
Depth of Knowledge (DOK)		
DOK Level 1	5-10	13-25%
DOK Level 2	15-25	38-63%
DOK Level 3	10-20	25-50%
Total Number of Items	**40**	**100%**

Mathematics

The subject test score for the mathematics test is on a scale of 1-36. There are eight reporting category scores reported: Preparing for Higher Math, which includes separate scores for Number & Quantity, Algebra, Functions, Geometry, and Statistics & Probability; Integrating Essential Skills; and Modeling. The mathematics subject test score and the science subject test score determine the Science, Technology, Engineering, and Mathematics (STEM) score.

Reporting Categories

Preparing for Higher Math:
This reporting category captures the more recent mathematics 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 and Quantity**
  Students will:
    - Demonstrate knowledge of real and complex number systems
    - Comprehend and reason with numerical quantities in many forms, including integer and rational exponents, and vectors and matrices
- **Algebra**
  Students will:
    - Find solutions to systems of equations
    - Apply knowledge to applications
    - Solve, graph, and model multiple types of expressions
- **Functions**
  Students will:
    - Manipulate and translate functions
    - Find and apply important features of graphs
- **Geometry**
  Students will:
    - Define and apply knowledge of shapes and solids, such as congruence and similarity relationships or surface area and volume measurements
    - Demonstrate proficiency with composition of objects and solve for missing values in triangles, circles, and other figures
- **Statistics and Probability**
  Students will:
    - Describe spread of distributions
    - Apply and analyze data collection methods
    - Demonstrate understanding and model relationships in data with two variables
    - Calculate probabilities

Integrating Essential Skills
Students will:
- Solve problems of increasing complexity
- Combine skills in longer chains of steps
- Apply skills in more varied contexts
- Demonstrate ability to understand more connections
- Increase fluency
- Build off of mathematics learned in earlier years such as rates and percentages; proportional relationships; area, surface area, and volume; average and median; expressing numbers in different ways, and more

Reporting Categories (continued)

Modeling:
Students use modeling skills across mathematical topics with answers to questions about producing, interpreting, understanding, evaluating, and improving models.

Table 3. Specification Ranges by Item Type and Reporting Category for Mathematics

60 minutes

	Number of Items	Percentage of Test
Reporting Categories		
Preparing for Higher Math	34-36	57-60%
Number & Quantity	4-6	7-10%
Algebra	7-9	12-15%
Functions	7-9	12-15%
Geometry	7-9	12-15%
Statistics & Probability	5-7	8-12%
Integrating Essential Skills	24-26	40-43%
Modeling	> 16%	> 27%
Depth of Knowledge (DOK)		
DOK Level 1 Preparing for Higher Math	7-9	12-15%
DOK Level 1 Integrating Essential Skills	0	0%
DOK Level 2 Preparing for Higher Math	17-19	28-32%
DOK Level 2 Integrating Essential Skills	15-17	25-28%
DOK Level 3 Preparing for Higher Math	8-10	13-17%
DOK Level 3 Integrating Essential Skills	8-10	13-17%
Total Number of Items	**60**	**100%**

Science

The subject test score for the science test is on a scale of 1-36. There are three reporting category scores reported: Interpretation of Data, Scientific Investigation, and Evaluation of Models, Inferences & Experimental Results. The science subject test score and the mathematics subject score determine the STEM score.

Reporting Categories

Interpretation of Data:
Students manipulate and analyze scientific data presented in tables, graphs, and diagrams (for example, recognize trends in data, translate tabular data into graphs, interpolate and extrapolate, and reason mathematically).

Scientific Investigation:
Students understand experimental tools, procedures, and design (for example, identify variables and controls) and compare, extend, and modify experiments (for example, predict the results of additional trials).

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

Table 4. Specification Ranges by Item Type and Reporting Category for Science

35 minutes

	Number of Items	Percentage of Test
Reporting Categories		
Interpretation of Data	18–22	45–55%
Scientific Investigation	8–12	20–30%
Evaluation of Models, Inferences & Experimental Results	10–14	25–35%
Depth of Knowledge (DOK)		
DOK Level 1	2–8	5–20%
DOK Level 2	20–30	50–75%
DOK Level 3	8–16	20–40%
Total Number of Items	**40**	**100%**

Writing

The ACT writing test is a 40-minute essay test that measures students' writing skills–specifically those skills emphasized in high school English classes and in entry-level college composition courses. The test consists of one writing prompt that describes a complex issue and presents three different perspectives on that issue. Students are asked to read the prompt and write an essay in which they develop their own perspective on the issue. The essay must analyze the relationship between their own perspective and one or more other perspectives. Students may adopt one of the perspectives given in the prompt as their own, or they may introduce one that is completely different from those given. Their score will not be affected by the point of view they take on the issue.

Taking the writing test does not affect the student's subject area scores or Composite score. However, the writing test score, along with the English subject test score and the reading subject test scores are used to calculate the ELA score.

The writing score ranges from 2 to 12. Additionally, four domain scores, also ranging from 2 to 12 are reported based on an analytic scoring rubric. The writing score is the rounded average of the four domain scores. The four domain scores addressed in the writing test are: Ideas & Analysis, Development & Support, Organization, and Language Use & Conventions. Two trained readers score each essay on a scale from 1-6 in each of the four domains. Each domain score represents the sum of the two readers' scores using the analytic rubric available in the ACT Technical Manual Supplement. If the readers' ratings disagree by more than one point, a third reader evaluates the essay and resolves the discrepancy.

Reporting Categories

Ideas & Analysis:
Scores in this domain reflect the ability to generate productive ideas and engage critically with multiple perspectives on the given issue. Competent writers understand the issue they are invited to address, the purpose for writing, and the audience. They generate ideas that are relevant to the situation.

Development & Support:
Scores in this domain reflect the ability to discuss ideas, offer rationale, and strengthen an argument. Competent writers explain and explore their ideas, discuss implications, and illustrate through examples. They help the reader understand their thinking about the issue.

Organization:
Scores in this domain reflect the ability to organize ideas with clarity and purpose. Organizational choices are integral to effective writing. Competent writers arrange their essay in a way that clearly shows the relationship between ideas and they guide the reader through their discussion.

Language Use & Conventions:
Scores in this domain reflect the ability to use written language to clearly convey ideas. competent writers make use of the conventions of grammar, syntax, word usage, and mechanics. They are also aware of their audience and adjust the style and tone of their writing to communicate effectively.