

Content of the ACT Sections

English Section

The English section consists of multiple essays, or passages, each followed by a set of multiple-choice questions.

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

The English section puts you in the position of a writer who makes decisions to revise and edit a text. Short texts and essays in different genres provide a variety of rhetorical situations. Passages are chosen for their appropriateness in assessing writing and language skills and to reflect students’ interests and experiences.

Four scores are reported for the English section: a score for the section overall and three reporting category scores based on specific knowledge and skills. The approximate percentage of the section devoted to each reporting category is:

Production of Writing (29–32%)

This category requires you to apply your understanding of the purpose and focus of a piece 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 (13–19%)

These questions require you to demonstrate effective language use through ensuring precision and concision in word choice and maintaining consistency in style and tone.

Conventions of Standard English (51–56%)

These questions require you to apply an understanding of the conventions of standard English grammar, usage, and mechanics to revise and edit text.

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

Tips for Taking the English Section

✓ *Be aware of the writing style used in each passage.*

The passages cover a variety of topics and are written in a variety of styles. It is important that you take into account the writing style used in each passage. When responding to a question, be sure to understand the context of the question. Consider how the sentence containing an underlined portion fits in with the surrounding sentences and into the passage as a whole.

✓ *Examine the underlined portions of the passage.*

Before responding to a question with an underlined portion, carefully examine what is underlined in the text. Consider the elements of writing included in each underlined portion.

- Some questions will ask you to base your decision on some specific element of writing, such as the tone or emphasis the text should convey.
- Some questions will ask you to choose the alternative to the underlined portion that is NOT or LEAST acceptable.

The answer choices for each question will contain changes in one or more of those elements of writing.

✓ *Be aware of questions with no underlined portions.*

You will be asked some questions about a section of the passage or about the passage as a whole, in light of a given rhetorical situation. Questions of this type are often identified by a question number in a box located at the appropriate point in the passage.

Questions about the entire passage are placed at the end of the passage and introduced by a horizontal box enclosing the following instruction: “Questions __ and __ ask about the preceding passage as a whole.”

✓ *Note the differences in the answer choices.*

Many of the questions in the section will involve more than one aspect of writing. Examine each answer choice and how it differs from the others. Be careful not to choose an answer that corrects one error but causes a different error.

✓ *Determine the best answer.*

When a question asks you to choose the best alternative to an underlined portion, consider the following approach:

- Decide how the underlined portion might best be phrased in standard written English or in terms of the particular question posed.
 - ~ If the underlined portion is the best answer, select “NO CHANGE.”
 - ~ If not, check to see whether your phrasing is one of the other answer choices. If you do not find your phrasing, choose the best of the answers presented.

For questions cued by a number in a box, decide which choice is most appropriate in terms of the question posed or the stated rhetorical situation.

✓ *Reread the sentence, using your selected answer.*

Once you have selected the answer you feel is best, reread the corresponding sentence(s) of the passage, inserting your selected answer at the appropriate place in the text to make sure it is the best answer within the context of the passage.

Mathematics Section

The mathematics section is designed to assess the mathematical skills students have typically acquired in courses taken up to the beginning of grade 12.

Most questions are self-contained. Some questions may belong to a set of several questions (e.g., each about the same graph or chart).

The material covered emphasizes the major content areas that are prerequisites to successful performance in entry-level courses in college mathematics. Knowledge of basic formulas and computational skills are assumed as background for the problems, but recall of complex formulas and extensive computation are not required.

Note: You may use a calculator on the mathematics section. See www.act.org/calculator-policy.html for details about prohibited models and features.

Nine scores are reported for the mathematics section: a score for the section overall and eight reporting category scores based on specific mathematical knowledge and skills. The approximate percentage of the section devoted to each reporting category is:

Preparing for Higher Mathematics (57–60%)

This category covers the more recent mathematics that students are learning, starting when they began using algebra as a general way of expressing and solving equations. This category is divided into five subcategories:

- **Number and Quantity (7–10%):** Demonstrate knowledge of real and complex number systems. Reason with numerical quantities in many forms, including expressions with integer and rational exponents, and vectors and matrices.
- **Algebra (12–15%):** Solve, graph, and model multiple types of expressions. Interpret and use many different kinds of equations, such as linear, polynomial, radical, and exponential relationships. Find solutions to systems of equations, even when represented by a simple matrix equation, and apply results to real-world contexts.
- **Functions (12–15%):** Demonstrate knowledge of function: definition, notation, representation, and application. Use functions including linear, radical, piecewise, polynomial, and logarithmic. Manipulate and translate functions, as well as interpret and use important features of graphs.
- **Geometry (12–15%):** Apply your knowledge of shapes and solids, using concepts such as congruence and similarity relationships or surface area and volume measurements. Apply your understanding to composite objects, and solve for missing values in triangles, circles, and other figures. Use trigonometric ratios and equations of conic sections.

- **Statistics and Probability (8–12%):** Describe center and spread of distributions. Apply and analyze data collection methods. Understand and model relationships in bivariate data. Calculate probabilities by recognizing the related sample spaces.

Integrating Essential Skills (40–43%)

This category focuses on measuring how well you can synthesize and apply your understandings and skills to solve more complex problems. The questions ask you to address concepts such as rates and percentages; proportional relationships; area, surface area, and volume; average and median; and expressing numbers in different ways. Solve non-routine problems that involve combining skills in chains of steps; applying skills in varied contexts; understanding connections; and demonstrating fluency.

Modeling

This category represents all questions that involve producing, interpreting, understanding, evaluating, and improving models. Each question is also counted in other appropriate reporting categories above. This category is an overall measure of how well you use modeling skills across mathematical topics.

Tips for Taking the Mathematics Section

✓ *If you use a calculator, use it wisely.*

All of the mathematics problems can be solved without a calculator. Many of the problems are best done without a calculator. Use good judgment in deciding when, and when not, to use a calculator. For example, for some problems you may wish to do scratch work to clarify your thoughts on the question before you begin using a calculator to do computations.

✓ *Solve the problem.*

To work out solutions to the problems, you will usually do scratch work in the space provided. You may wish to glance over the answer choices after reading the questions. However, working backwards from all five answer choices can take a lot of time and may not be effective.

✓ *Find your solution among the answer choices.*

Once you have solved the problem, look for your answer among the choices. If your answer is not included among the choices, carefully reread the problem to see whether you missed important information. Pay careful attention to the question being asked. If an equation is to be selected, check to see whether the equation you think is best can be transformed into one of the answer choices provided.

✓ *Make sure you answer the question.*

The solutions to many questions will involve several steps. Make sure your answer accounts for all the necessary steps. Frequently, an answer choice is an intermediate result, not the final answer.

✓ *Make sure your answer is reasonable.*

Sometimes an error in computation will result in an answer that is not practically possible for the situation described. Always think about your answer to determine whether it is reasonable.

✓ *Check your answer.*

You may arrive at an incorrect solution by making common errors in the problem-solving process. If there is time remaining before the end of the mathematics section, it is important that you reread the questions and check your answers to make sure they are correct.

Reading Section

The reading section that measures your ability to read closely, reason logically about texts using evidence, and integrate information from multiple sources.

The section questions focus on the mutually supportive skills that readers must bring to bear in studying written materials across a range of subject areas. Specifically, questions will ask you 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; analyze the author's or narrator's voice and method; analyze claims and evidence in arguments; and integrate information from multiple texts.

The reading section is composed of multiple parts. Some parts consist of one long prose passage and others consist of shorter prose passages. The passages represent the levels and kinds of text commonly encountered in first-year college curricula.

Each passage is preceded by a heading that identifies the author and source, and may include important background information to help you understand the passage. Each portion contains a set of multiple-choice questions. These questions do not test the rote recall of facts from outside the passage or rules of formal logic, nor do they contain isolated vocabulary questions. In sections that contain two shorter passages, some of the questions involve both of those passages.

Five scores are reported for the reading section: a score for the section overall and three reporting category scores based on specific knowledge and skills; and an Understanding Complex Texts indicator. The approximate percentage of the section devoted to each reporting category is:

Key Ideas and Details (55–60%)

This category requires you to read texts closely to determine central ideas and themes. Summarize information and ideas accurately. Understand relationships and draw logical inferences and conclusions, including understanding sequential, comparative, and cause-effect relationships.

Craft and Structure (25–30%)

These questions ask you to determine word and phrase meanings; analyze an author's word choice rhetorically; analyze text structure; understand the author's 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 (13–18%)

This category requires you to understand authors' claims, differentiate between facts and opinions, and use evidence to make connections between different texts that are related by topic. Some questions will require you to analyze how authors construct arguments, and to evaluate reasoning and evidence from various sources.

Tips for Taking the Reading Section

✓ *Read each passage carefully.*

Before you begin answering a question, read all of the content carefully. Be conscious of relationships between or among ideas. You may take note about important ideas in the passages.

✓ *Refer to the passages when answering the questions.*

Answers to some of the questions will be found by referring to what is explicitly stated in the text of the passages. Other questions will require you to determine implicit meanings and to draw conclusions, comparisons, and generalizations. Consider the text before you answer any question.

Science Section

The science section measures the interpretation, analysis, evaluation, reasoning, and problem-solving skills required in the natural sciences. The section presents several authentic scientific scenarios, each followed by a number of multiple-choice questions.

The content includes biology, chemistry, Earth/space sciences (e.g., geology, astronomy, and meteorology), and physics. Advanced knowledge in these areas is not required, but background knowledge acquired in general, introductory science courses may be needed to correctly answer some of the questions.

The science section focuses on multidimensional assessment, with questions that assess science content in concert with science skills and practices.

The questions require you to recognize and understand the basic features of, and concepts related to, the provided information; to examine critically the relationship 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.

Note: You are not permitted to use a calculator in the science section.

The scientific information appears in one of three formats:

- **Data Representation (30–40%):** This format presents graphic and tabular material similar to that found in science journals and texts. The questions associated with this format measure skills such as recognizing relationships among data in tables and graphs; interpolation and extrapolation; and translating tabular data into graphs.
- **Research Summaries (45–55%):** This format provides descriptions and results of one or more related experiments. The questions focus on the design of the experiments and the interpretation of experimental results.
- **Conflicting Viewpoints (15–20%):** This format presents two or more explanations for the same scientific phenomena that, because they are based on differing premises or incomplete data, are inconsistent with one another. The questions focus on the understanding, analysis, and comparison of alternative viewpoints or hypotheses.

Four scores are reported for the science section: a score for the section overall and three reporting category scores based on scientific knowledge, skills, and practices. The approximate percentage of the section devoted to each reporting category is:

Interpretation of Data (40–50%)

This category asks you to manipulate and analyze scientific data presented in scientific tables, graphs, and diagrams (e.g., recognize trends in data, translate tabular data into graphs, interpolate and extrapolate, and reason mathematically).

Scientific Investigation (20–30%)

This category requires you to understand experimental tools, procedures, and design (e.g., identify controls and variables) and compare, extend, and modify experiments (e.g., predict the results of additional trials).

Evaluation of Models, Inferences, and Experimental Results (25–35%)

These questions ask you to 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).

Tips for Taking the Science Section

✓ *Read the passage carefully.*

Before you begin answering a question, read the scientific material provided. It is important that you read the entire text and examine any tables, graphs, or figures. You may take notes about important ideas. Some of the information sets will describe experiments. You should consider the experimental design, including the controls and variables, because questions are likely to address this component of scientific research.

✓ *Note the different viewpoints in passages.*

Some material will present conflicting viewpoints, and the questions will ask you to distinguish among them. It may be helpful for you to take notes summarizing each viewpoint about specific portions of the section.

Writing Section (Optional)

If you register for the full ACT with writing, you will take the writing section after the four multiple-choice sections. You may also opt to take the writing section on its own through section retesting. Your score in the writing section will not affect your scores on the multiple-choice or your Composite score.

The writing section is a 40-minute essay test that measures your writing skills—specifically, writing skills taught in high school English classes and in entry-level college composition courses.

The section consists of one writing prompt that describes a complex issue and provides three different perspectives on the issue. You are asked to read the prompt and write an essay in which you develop your own perspective on the issue. Your essay must analyze the relationship between your own perspective and one or more other perspectives. You may adopt one of the perspectives given in the prompt as your own, or you may introduce one that is completely different from those given. Your score will not be affected by the perspective you take on the issue.

Five scores are reported for the writing section: a single subject-level writing score reported on a scale of 2–12, and four domain scores that are based on an analytic scoring rubric. The subject score is the rounded average of the four domain scores. The four writing domains are:

Ideas and 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 and Support

Scores in this domain reflect the ability to discuss ideas, offer rationale, and bolster 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 and Conventions

Scores in this domain reflect the ability to use written language to convey arguments with clarity. 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.

Tips for Taking the Writing Section

✓ *Pace yourself.*

Budget your time based on your experience in taking essay tests in school and in other circumstances when you have done writing within a time limit. It is unlikely that you will have time to draft, revise, and recopy your essay.

✓ *Plan.*

Before writing, carefully read and consider all prompt material. Be sure you understand the issue, the different perspectives on the issue, and your essay task.

Planning questions are included with the prompt that will help you analyze the different perspectives and develop your own. Use these questions to think critically about the prompt and generate an effective response. How would you best organize and support your ideas in a written argument? Spend time structuring or outlining your response.

Note: The planning questions are optional and are not scored.

✓ *Write.*

Establish the focus of your essay by making clear your argument and its main ideas.

- Explain and illustrate your ideas with sound reasoning and meaningful examples.
- Discuss the significance of your ideas: what are the implications of what you have to say, and why is your argument important to consider?

As you write, ask yourself if your logic is clear, if you have supported your claims, and if you have chosen precise words to communicate your ideas.

✓ *Review your essay.*

Try to make your essay as polished as you can. Take a few minutes before time is called to read over your essay and correct any mistakes.

If you take the ACT on paper, be sure to write your essay legibly. If you find words that are hard to read, recopy them. Make corrections and revisions neatly, between the lines. Do not write in the margins, if applicable.

✓ *Practice.*

There are many ways to prepare for the writing section. Read newspapers and magazines, watch/listen to news analyses online, on TV, or on radio, or participate in discussions and debates, thinking carefully about other perspectives in relation to your own.

One good way to prepare for the writing section is to practice writing with different purposes for different audiences. The writing you do in your classes will help you, as will writing a personal journal, stories, essays, editorials, or other writing you do on your own.

It is also a good idea to practice writing within a time limit. Taking the practice writing test will give you a sense of how much additional practice you may need. You might want to take the practice writing section even if you do not plan to take the ACT with writing. It will help you build skills that are important in college-level learning and the world of work.

Taking the Practice Tests

It is a good idea to take the practice tests under conditions as similar as possible to those you will experience on test day. The following tips will help you:

- If taking the full ACT, the four multiple-choice tests require 2 hours and 55 minutes to complete. Take them in order, in one sitting, with a 10- to 15-minute break between Tests 2 and 3.
- You will need only sharpened, soft lead No. 2 pencils and good erasers. Remove all other items from your desk. You will not be allowed to use unapproved scratch paper.
- If you plan to use a permitted calculator on the mathematics test, use the same one you will use on test day.
- Use a digital timer or clock to time yourself on each practice test. Set your timer for five minutes less than the time allowed for each test so you can get used to the verbal announcement of five minutes remaining.
- Give yourself only the time allowed for each test.
- Detach and use the sample multiple-choice answer document on pages 63–64.
- Read the test directions on the first page of each multiple-choice test. These are the same directions that will appear in your test booklet on test day.
- Start your timer and begin with Test 1. Continue through Test 4, taking a 10- to 15-minute break between Tests 2 and 3.
- Score your multiple-choice tests using the information beginning on page 56.
- If you plan to take the ACT with writing, read the directions on the first page of the practice ACT writing test (page 53). These are the same directions that will appear in your test booklet on test day. Start your timer, then read the prompt on page 54. After you understand what the prompt is asking you to do, plan your essay and then write or print it on lined paper. (On test day, your answer document will have lined pages on which you will write your essay.) Score your essay using the information on pages 61–62.