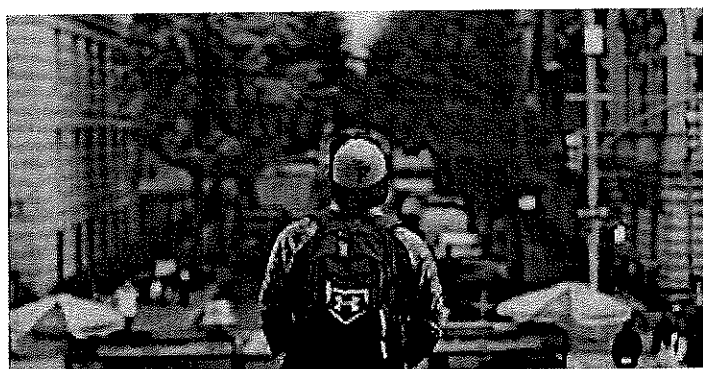


6 Question Types You WILL Face on the ACT Math Test

What types of questions can you expect on the ACT Math test? Learn how to prep for the concepts and math formulas you'll face with some ACT math practice.

- What to Expect
- ACT Math Practice

What To Expect on the ACT Math Test



You will have 60 minutes to answer 60 multiple-choice questions based on “topics covered in typical high school classes.” For those of you who aren’t sure if you went to a typical high school, these questions break down into rather precise areas of knowledge.

The ACT Math Test usually breaks down into 6 questions types: pre-algebra, elementary algebra, and intermediate algebra questions; plane geometry and coordinate geometry questions; and some trigonometry questions.

Algebra

- 14 pre-algebra questions based on math terminology (integers, prime numbers, and so on), basic number theory (rules of zero, order of operations and so on), and manipulation of fractions and decimals
- 10 elementary algebra questions based on inequalities, linear equations, ratios, percents, and averages
- 9 intermediate algebra questions based on exponents, roots, simultaneous equations, and quadratic equations

Total: 33 questions

Geometry

- 14 plane geometry questions based on angles, lengths, triangles, quadrilaterals, circles, perimeter, area, and volume
- 9 coordinate geometry questions based on slope, distance, midpoint, parallel and perpendicular lines, points of intersection, and graphing

Total: 23 questions

Trigonometry

- 4 questions based on basic sine, cosine, and tangent functions, trig identities, and graphing

Total: 4 questions

ACT Math Formulas

The ACT does not provide any formulas at the beginning of the Math Test. This means you need to memorize relevant formulas, so you can recall them quickly as needed. Don't panic! Because ACT is so specific about the types of questions it expects you to answer, you can easily prepare to tackle them.

Read More: 6 ACT Math Tips to Improve Your Score

ACT Calculator Policy

Not all standardized tests allow calculators. Fortunately, ACT does. Your calculator can help to save a ton of time on operations that are easy to mess up like multiplying decimals or working with big numbers. The place where you have to be really careful with your calculator, though, is on the easy ones. Be careful with negative numbers!

What kind of calculator should I bring?

TI-89, TI-92, and TI-Nspire CAS model calculators are not allowed on the ACT (among others). In our book *Cracking the ACT*, we show you how to solve problems on the TI-83.

If you don't plan to use a TI-83 on the test, we recommend you make sure your calculator is acceptable for use on the test and that it can do the following:

- handle positive, negative, and fractional exponents
- use parentheses
- graph simple functions
- convert fractions to decimals and vice versa

- change a linear equation into $y = mx + b$ form
-

6 ACT Science Tips and Strategies

The ACT Science Test doesn't look much like the tests you've taken in your high school science classes.

The ACT Science section is not a test of scientific facts. It's a test of how well you look up and synthesize information from tables, graphs, illustrations, and passages. Our ACT Science tips will help you prepare to score big on test day.



1. Know What to Expect

ACT Science prep begins with understanding what's on the ACT Science test.

Format: 40 multiple choice questions about 7 science passages

Topics: biology, chemistry, physics, and the Earth/space sciences such as astronomy, geology, and meteorology

Most of the questions can be answered from the information presented in the passages or figures, but be prepared for 3-4 questions that require outside knowledge. You should be able to:

- Look up data and trends
- Make predictions
- Synthesize information

2. Understand the Passage Types

All the science passages fall within 3 categories.

Types of ACT Science Passages

Charts and Graphs

5 questions each

- Always come with figures

		<ul style="list-style-type: none"> • Contain 1 or more charts, tables, graphs, or illustrations
Experiments	6 questions each	<ul style="list-style-type: none"> • Usually come with figures • Describe several experiments • Include more text than the Charts and Graphs passages do
Opposing Viewpoints	1 passage, 7 questions	<ul style="list-style-type: none"> • Sometimes come with figures • Feel more like the passages on ACT Reading Test • Ask you to compare, contrast, and synthesize different viewpoints

3. Order the Passages

ACT doesn't present the passages in order of difficulty. But on every exam, some are easier than others, while some are truly tough. Scan the passages and tackle the one that looks easiest, first. You don't want to spend too much time on the most difficult passages only to run out of time on questions you can answer more easily.

Read More: [Start a Free ACT Practice Test](#)

4. Decide if you will do questions Now, Later, or Never

Your goal with all the science passages is to find the main point. You will spot the main point faster when those conclusions are presented in figures rather than in text. So, the easier the figures are to "read," the faster you'll crack the main point.

The best passages to do Now have the most obvious patterns as well as a few other common characteristics. Look for small graphs, easy-to-spot trends, and short answers (especially answers with numbers and relationship words like "increase" or "decrease"). Learn more about working questions out of order in our [ACT Tips and Tricks](#) article, or grab a copy of our book *[Cracking the ACT](#)*.

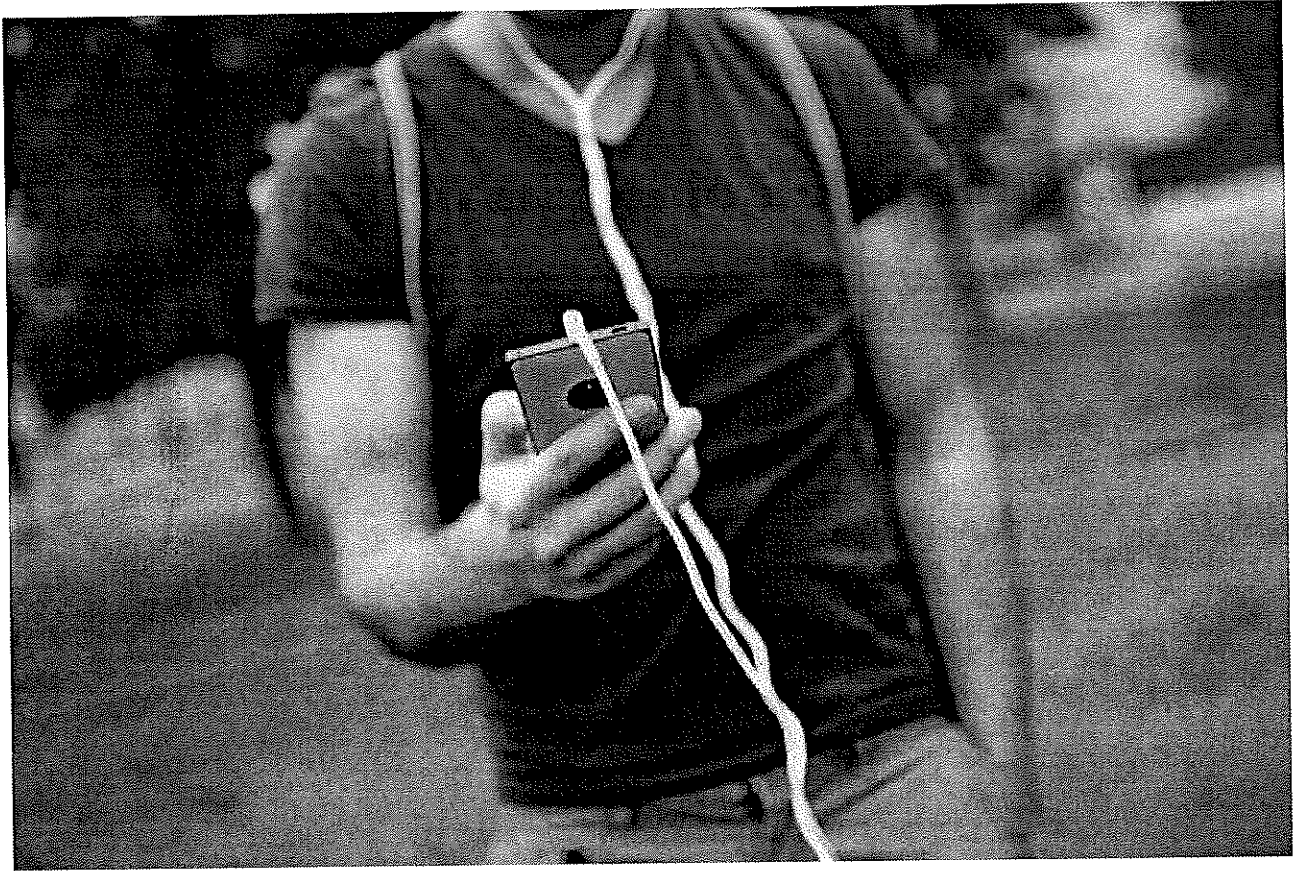
5. Be Flexible

Always be prepared to adapt your order based on what you see, both in practice and on a real test. If you choose a passage that looked good and then find yourself struggling, leave it and find another.

6. Stumped? Guess and move on.

When you're stumped, your first instinct may be to go back and read the passage or stare at the figure again, waiting for a flash of inspirational genius to suddenly make everything clear. Instead, use process of elimination to get rid of answers that can't be right. Even if you can cross off only one answer, guess from what's left and move on.

ACT Reading Strategies to Boost Your Score



The ACT is different from the tests you take in school, so you need to approach it differently, too. Learn what types of Reading Test questions and passages you'll actually face, and the strategies that will help you score higher.

What's on the ACT Reading Test?

There are four reading passages of about 800 words each, always in this order:

1. prose fiction
2. social science
3. humanities
4. natural science

After each passage, you'll answer 10 questions that test you on what was directly stated as well as what meanings were implied in the text.

What it is

What you can expect

Prose Fiction	<p>Excerpts from novels or short stories</p> <p>Most passages are contemporary, emphasize diversity, and often center on family relationships.</p>	<ul style="list-style-type: none"> • Setting, atmosphere, and the relationships between characters are more important than facts • Questions likely to involve identifying the implied meanings vs. what was directly stated
Social Science	<p>Topics: anthropology, archaeology, biography, business, economics, education, geography, history, political science, psychology, and sociology</p>	<ul style="list-style-type: none"> • Organization flows logically with clear topic sentences and well-chosen transitions to develop the main idea • Author may have a point of view on the subject or may simply deliver informative facts in a neutral tone
Humanities	<p>Nonfiction passages—usually memoirs or personal essays</p> <p>Topics: architecture, art, dance, ethics, film, language, literary criticism, music, philosophy, radio, television, and theater</p>	<ul style="list-style-type: none"> • Narrative may use a more organic development instead of a linear one • Tone will be more personal and perhaps more emotional
Natural Science	<p>Topics: anatomy, astronomy, biology, botany, chemistry, ecology, geology, medicine, meteorology, microbiology, natural history, physiology, physics, technology, and zoology</p>	<ul style="list-style-type: none"> • Lots of details and sometimes very technical descriptions • Linear organization with clear topic sentences and transitions to develop the main idea • Author may or may not have an opinion on the topic • Questions usually track the text pretty closely and require you to make few inferences

How to Tackle the ACT Reading Test

Now that you know what to expect, here are six ACT reading strategies that will help you approach any passage:

1. Choose Your Own Adventure

On the ACT Reading Test, you only have 35 minutes to answer 40 questions. To earn your best possible reading score, you have to invest your time where it will do the most good. Always choose your own order, working first the passages that are easiest for you and leaving for last the most difficult. Learn more [ACT strategies](#) for working questions out of order.

2. Get Plenty of Practice

The best way to determine which categories you tend to ace is through repeated practice tests. Do you consistently do the best on social science? What types of questions do you find easy or difficult? Try some [ACT reading practice](#) or take a full-length [ACT practice test](#).

3. Read the Questions First

Reading actively means knowing in advance what you're going to read. So, before you start in on the passage, take a look at the questions. You'll know what important details to look for, and you won't waste time on details that never appear in a question.

4. Keep Moving

If you read something you don't understand, do not reread it. Just keep going, and worry about it later only if you have to. Learn more about finding the right [ACT pacing](#) for you.

Read More: [What's a Good ACT Score?](#)

5. Look for Transition Words

Transition words are like road signs. They show you the route, direct you to a detour, and get you back on the path of the main idea.

6. Don't Panic if You Don't Know the Word

In some questions, you'll have to determine the meaning of a word or phrase as it's used in context. Most of these questions use relatively common words, but their meaning in the passage can be figurative more than literal. If the question asks you about an unfamiliar word, try to come up with your own word that fits the context, and then use process of elimination on the answers. If you can't eliminate three choices, guess from what's left and move on.

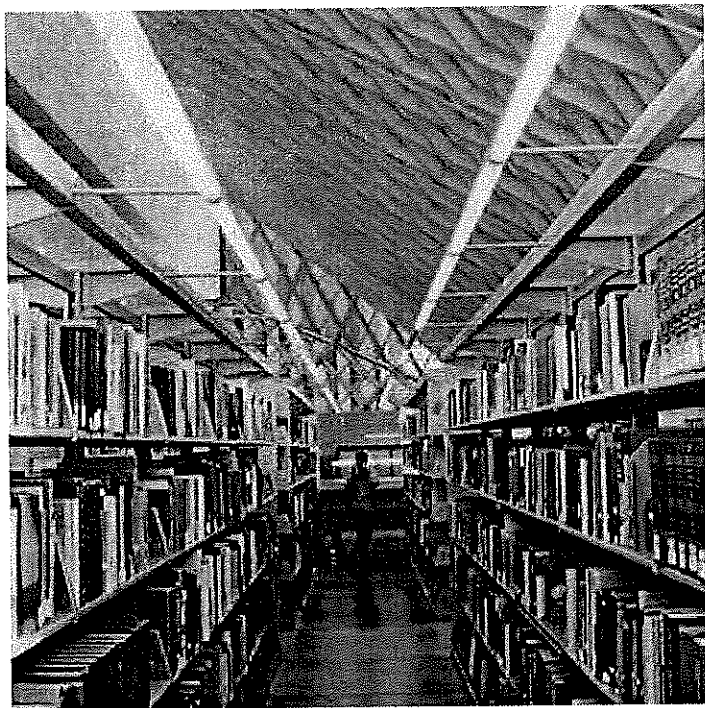
6 ACT English Tips for Any Passage

The ACT English Test is not a grammar test or a test of how well you write. Instead, the ACT tests your editing skills—your ability to fix errors in grammar and punctuation and to improve the organization and style of five different passages. Sound scary? We can help! Learn what to expect on test day and the expert ACT English strategies you need to score higher.

Sample ACT English Question

On the ACT English Test you'll face five passages on topics ranging from historical essays to personal narratives. Portions of each passage are underlined, and you must decide if these are correct as written or if one of the other answers would fix or improve the selection. Other questions will ask you to add, cut, or reorder text, and ask you to evaluate the passage as a whole.

Here's an example question, which comes straight from a passage in our book *Cracking the ACT*



One college class chose Díaz's *The Brief Wondrous Life of Oscar Wao* as (3) their favorite book of the semester.

- A. NO CHANGE
- B. it's favorite book

- C. they're favorite book
- D. its favorite book

[+] [See the Answer](#)

Stumped? Here are six ACT English tips for prepping for any passage.

1. Remember the 4 C's

- Good writing should be in **complete** sentences.
- Everything should be **consistent**.
- The meaning should be **clear**.
- The best answer, free of any errors, will be the most **concise**.

Even when you can't figure out what type of error a question is really testing, apply the 4 C's, and you'll be able to eliminate answer choices.

Read More: [Take a Free ACT Practice Test](#)

2. Know what ACT Grammar Rules to Expect

You don't need to memorize your grammar textbook to prep for the ACT. But it's a smart move to review the most common rules tested on the English Test. You can expect to encounter grammar questions about the following topics (to name a few):

- subject-verb agreement
- pronoun agreement
- adjectives and adverbs
- comparisons and superlatives
- punctuation
- conjunctions

We've got a thorough overview of rules that show up the most in our book *[Cracking the ACT](#)*.

Nervous about the ACT English Test? Remember the 4 C's!



3. Let the Answers Help You

The answer choices are your clues to identifying what the question is really asking. Do any of the words or punctuation change? Pay attention to what changes versus what stays the same in the answers to figure out what the potential error is.

4. Trust Your Ear (But Double-Check)

Your ear is pretty reliable at raising the alarm for outright errors and clunky, awkward phrasing. Always verify what your ear is telling you by checking the answers to identify the topic and confirm there is no error. If something sounds off, investigate further, but remember to be careful for errors your ear *won't* catch.

Read More: [ACT Pop Quiz](#)

5. Cross Off Answers That Don't Fix the Error

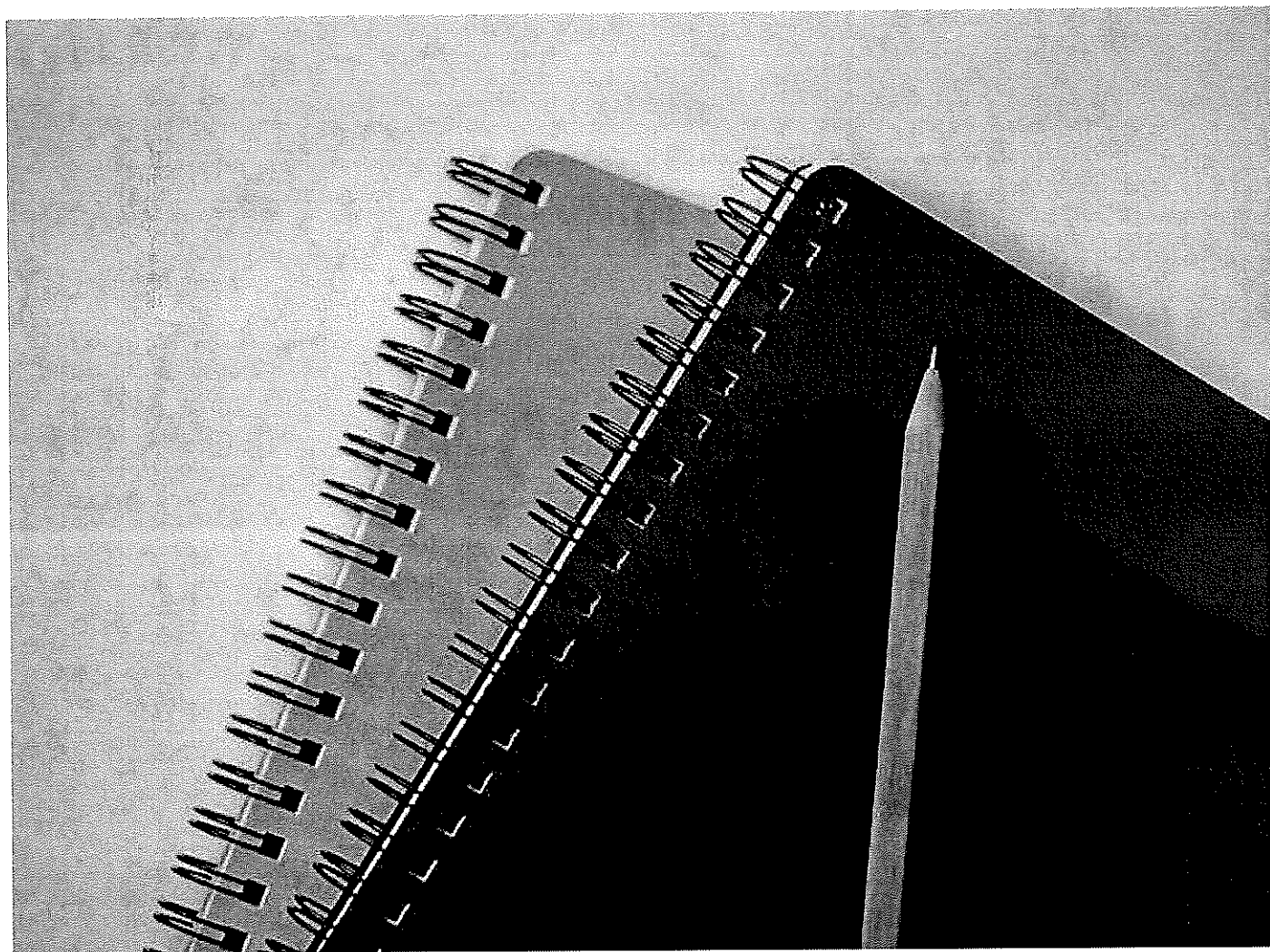
To go from good to great on the English test, you can't just fix a question in your head and then find an answer that matches. Instead, after you've identified what's wrong, eliminate all the choices that do not fix the error.

6. Don't Change What Isn't Broken

NO CHANGE is a legitimate answer choice. Don't make the mistake of assuming that all questions have an error that you just can't spot.

Sample ACT Essay Prompt (and How to Tackle It)

Are you taking the ACT with Writing? No need to stress! The ACT essay follows a predictable format, which means you can practice and prepare beforehand. Take a look at a sample ACT writing prompt and learn five key steps to penning a high-scoring essay.



Keep in mind: The ACT essay is optional. Currently, only 27 colleges and universities require the ACT with Writing. You can see the complete list [here](#). If there is any chance that you might apply to one of those schools, you should register for the ACT with Writing. Not sure where you will apply? You should strongly consider signing up for the essay and keep your options open.

ACT with Writing: Sample Prompt

This example writing prompt comes straight from our book *Cracking the ACT*:

Education and the Workplace

Many colleges and universities have cut their humanities departments, and high schools have started to shift their attention much more definitively toward STEM (Science, Technology, Engineering, Mathematics) and away from ELA (English, Language Arts). Representatives from both school boards and government organizations suggest that the move toward STEM is necessary in helping students to participate in a meaningful way in the American workplace. Given the urgency of this debate for the future of education and society as a whole, it is worth examining the potential consequences of this shift in how students are educated in the United States.

Read and carefully consider these perspectives. Each suggests a particular way of thinking about the shift in American education.

Perspective 1

ELA programs should be emphasized over STEM programs. Education is not merely a means to employment: ELA education helps students to live more meaningful lives. In addition, an exclusively STEM-based program cannot help but limit students' creativity and lead them to overemphasize the importance of money and other tangible gains.

Perspective 2

ELA programs should be eradicated entirely, except to establish the basic literacy necessary to engage in the hard sciences, mathematics, and business. Reading and writing are activities that are best saved for the leisure of students who enjoy them.

Perspective 3

ELA and STEM programs should always be in equal balance with one another. Both are necessary to providing a student with a well-rounded education. Moreover, equal emphasis will allow the fullest possible exposure to many subjects before students choose their majors and careers

Essay Task

Write a unified, coherent essay in which you evaluate multiple perspectives on the issue of how schools should balance STEM and ELA subjects. In your essay, be sure to:

- analyze and evaluate the perspectives given
- state and develop your own perspective on the issue
- explain the relationship between your perspective and those given

Your perspective may be in full agreement with any of the others, in partial agreement, or wholly different. Whatever the case, support your ideas with logical reasoning and detailed, persuasive examples.

How to Write the ACT Essay

Your job is to write an essay in which you take some sort of position on the prompt, all while assessing the three perspectives provided in the boxes. Find a way to anchor your essay with a unique perspective of your own that can be defended and debated, and you are already in the upper echelon of scorers.

Step 1: Work the Prompt

What in the prompt requires you to weigh in? Why is this issue still the subject of debate and not a done deal?

Step 2: Work the Perspectives

Typically, the three perspectives will be split: one *for* , one *against* , and one *in the middle* . Your goal in Step 2 is to figure out where each perspective stands and then identify at least one shortcoming of each perspective. For the example above, ask yourself:

- What does each perspective consider?
- What does each perspective overlook?

Read More: [What's a Good ACT Score?](#)

Step 3: Generate Your Own Perspective

Now it's time to come up with your own perspective! If you merely restate one of the three given perspectives, you won't be able to get into the highest scoring ranges. You'll draw from each of the perspectives, and you may side with one of them, but your perspective should have something unique about it.

Step 4: Put It All Together

Now that you have your ideas in order, here's a blueprint for how to organize the ACT essay. This blueprint works no matter what your prompt is.

- | | |
|---------------------------|---|
| Introduction | <ul style="list-style-type: none">• Start with a topic sentence that restates the central issue• Clearly state your position on the issue• Start with a transition/topic sentence that discusses the OPPOSING SIDE of your argument |
| Body Paragraph (1) | <ul style="list-style-type: none">• Discuss the given perspective(s) that would support the opposing argument• Give a specific example that could be used to support the opposing perspective• Explain why you disagree with the opposing perspective |

- | | |
|-------------------------------|--|
| Body Paragraph
(2) | <ul style="list-style-type: none">• Start with a transition/topic sentence that discusses YOUR POSITION on the central issue• Explain your position including any of the given perspectives that support your position• Give an example that supports your position• End the paragraph by restating your position |
| Conclusion | <ul style="list-style-type: none">• Recap your discussion• Restate your perspective and arguments• Provide a final overarching thought on the topic |

Step 5: (If There's Time): Proofread

Spend one or two minutes on proofreading your essay if you have time. You're looking for big, glaring errors. If you find one, erase it completely or cross it out neatly. Though neatness doesn't necessarily affect your grade, it does make for a happy grader.
