The Mindprint Learning Guide for SAT/ACT and Standardized Test Prep

A Personalized Skills-Based Approach

Fall 2017

Contents

Overview

This guide will support you and your students for SAT, ACT and other standardized test preparation. All students who take the Mindprint Assessment have access to a Test Taking Plan that is customized based on the strengths and needs in their Mindprint profiles.

We anticipate that you will **use the Mindprint Test Taking Plan in combination with your existing curriculum of practice tests and skill mastery.** Our plans are designed to help you:

(1) Choose the best test for each student (if you are still deciding between SAT and ACT);
(2) Anticipate which problem types and sub-tests might cause your student the most difficulty or require more preparation; and
(3) Provide the most important test taking strategies to avoid your student getting tripped up on test mechanics, underperforming relative to expectations, or overcome by test anxiety.

Repeat practice and mastery of the academic skills and question-specific content will still be critical, and you should anticipate continuing to use your curriculum for skill mastery.

Your Student's Individualized Test Taking Plan

You might quickly recognize that the majority of test taking strategies and preparation techniques in the Mindprint Toolbox would be helpful for all learners.

However, the Mindprint Test Taking Plan is designed to give each student the strategies that will provide the "biggest bang for the buck." This is important. You do not want to overload students with strategies to remember, particularly for stressful test taking situations. In fact, your student might have strengths that help him naturally address some aspects of the test, so taking the time to learn all strategies would be inefficient.

The key to your student's success will be using the Mindprint prioritization of strategies. As a student learns and masters the most important strategies, you will begin to see improvement in self-confidence and practice test scores. Based on your student's specific goals and timeframe, you can add additional strategies as needed.

Strategies in the Test Taking Plan

We view test preparation in four broad categories. These are the most effective strategies for students to manage their time, preparation, and decision-making **based on their specific strengths and needs in the Mindprint Profile**.

- Planning for Test Day
- Mastering the Test Format
- Subject Mastery – Math & Data Analysis (Science)
- Subject Mastery – Reading, English & Essay

Why Your Student's Mindprint Profile Prepares You Most Efficiently

If you are working with your student for academic tutoring, you might already be using the Recommendations in your student's Mindprint Profile, as well as her Personalized Toolbox and Personalized Learning Plan.

This guide is designed specifically to help you use the Mindprint Profile to improve standardized test performance. You will understand why there are inconsistencies between academic performance/grades and standardized test scores. Since Mindprint Skills are a better predictor of standardized test performance than grades, using Mindprint Skills will tell you HOW to boost test scores.

Since you are likely working with high school students, you might wonder why you are learning now, for the first time, that your student is having difficulty. This is a common and understandable reaction.

Of course, it is ideal to discover students' relative strengths and needs as early as possible in their academic careers. In reality, it doesn't usually happen. As a result, some students' grades might not reflect their full capabilities. In other cases, students figure out ways to compensate so their relative weaknesses don't hold them back. **However, the combination of the high stakes of standardized tests and time pressure makes it very difficult for students to compensate in a testing situation.** The good news is that with focused coaching and support you can help your students compensate on standardized tests, too. Even better is that many of these strategies will help students work more efficiently when they transition into college and need to work independently with an increased workload.

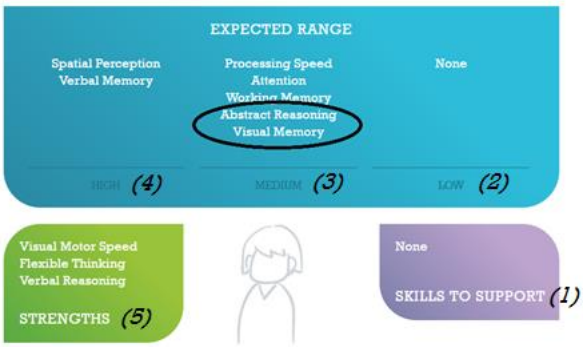
*An Important Note on **Relative** Strengths and Weaknesses*

It is valuable to remind ourselves that even straight A students have relative strengths and needs. While they might get all A's, there are clearly times when they need to work harder. It's true of everyone. FACT: Einstein aced the science portion of his college entrance exam, but he failed the English portion his first time.

In preparing for standardized tests, it is extremely beneficial to understand how relative differences in a student's skills might affect performance. It is the ***relative differences*** that are most likely to get in the way of the student reaching his targeted score.

For example, if you have a student who is aiming for a perfect 36 on the ACT, he or she probably has several strengths, and perhaps no lagging skills. It is the skills in the expected range that could make the difference between a 34 and a 36. Understanding how to support a student's relative weaknesses is key when it comes to standardized test performance, even if these skills are not a concern in the classroom.

Here's an example of an extremely capable student who has a few relative weaknesses in visual thinking skills. Strategies for abstract reasoning and working memory will enable you to best support him:



Numbers are comparable to test question difficulty

An Important Note about Test Anxiety

It is natural for all students to feel some level of anxiety about a high-stakes, standardized test. The right level of anxiety is a good thing, as it provides the motivation some students need to work hard and study for the exam. Anxiety on test day can help students work at a faster pace that enables them to finish the exam to the best of their ability.

Unfortunately, too much stress can impede efficient brain functioning. While excessive anxiety can affect all skills, executive functions (working memory, attention and flexible thinking) are typically the most impacted. **You might want to prepare an anxious student as if they have attention, working memory, or flexible thinking weaknesses so they have the appropriate strategies when they are feeling stressed or nervous.**

What's Next?

Our Quick Reference Guide on page six will familiarize you with the key differences between the SAT and ACT, highlighting the differences between the two tests that will have the biggest potential impact on your student. This guide will be important in helping you decide which test will be a better fit.

Then, starting on page eight, find and read about the two or three skills that could impact your student's performance the most, based on your student's Mindprint Profile. ***Begin with your student's weakest skills***. No matter what else you do, teach your student these critical strategies. Once those strategies are well understood, use the Mindprint website to access your student's personalized Test Taking Plan where you can track and add strategies and monitor progress.

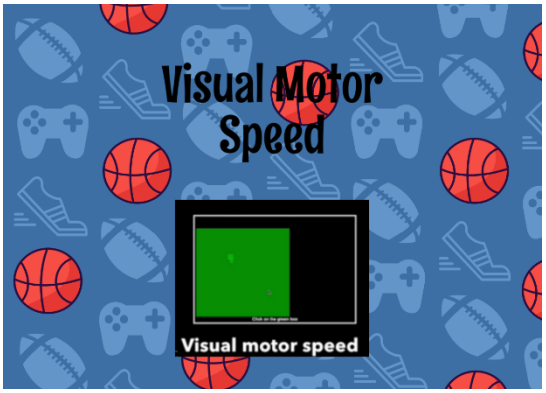
Good luck!

SAT vs. ACT Quick Reference Guide		
	SAT	ACT
General	• Questions slightly more complex • More time per question and fewer questions (154 total) • 3 longer sections • Letter responses don't alternate -- easier to make fill-in mistakes • Reading Section first • No dedicated science section, but science questions interspersed in all three sections	• Questions more straight-forward • Less time per question and more questions (215 total) • 4 shorter sections • Spacing between problems is easier to read AND letter responses alternate -- easier to catch mistakes • English Section first • Dedicated science section and a science Reading passage
Writing & Language/ English	• 48 seconds per question • 35 minutes • Includes science graphs and charts that require interpretation of main idea	• 36 seconds per question • 45 minutes • More questions about the re-ordering of words, sentences, and paragraphs
Reading	• 75 seconds per question • 65 minutes • Topics: World Literature (1) Science (2), Social Studies (2); one of five will be two shorter comparison passages (no pre-determined order) • Questions in sequential order • Informational blurb preceding each passage gives some sense of main idea • Vocabulary is familiar words in unfamiliar ways and more nuanced	• 52 seconds per question • 35 minutes • Topics: Prose Fiction, Social Sciences, Humanities, Natural Sciences (always in that order) • Questions on passage in random order • Vocabulary in context tends to be more idiomatic and/or homophones
Science	• No distinct science section, but… • Two science Reading passages • Graph and chart interpretation in the Math and Writing sections • Graphs tend to be easier to understand	• 52 seconds per question • 35 minutes • Design and interpretation of science experiments • Graphs tend to be more complex and require interpolation
Math	• 1 minute 23 seconds per question • 80 minutes • Most formulas provided • Calculator cannot be used in one section • Grid-in for no calculator section • More complex, multi-step problems • Limited geometry and trigonometry • Figures often not drawn to scale	• 1 minute per question • 60 minutes • Formulas not provided • Calculator for all problems • More concepts covered (geometry, trigonometry, matrices) but generally not at the same depth • Figures generally drawn to scale

Optional Essay	• 50 minutes • Read an essay and interpret it	• 40 minutes • Read a prompt and take a point of view drawing on your general knowledge
*Extra Time	• Allotted per section	• Allotted in aggregate—can distribute across sections as you choose

**Students who have a 504 Plan or IEP might qualify for time and a half*

Visual Motor Speed



How Visual Motor Speed Affects Standardized Test Taking

Visual motor speed refers to how you use your eyes, hands and fingers together to coordinate and complete a task. Visual motor speed can affect how efficiently students are able to switch their eyes back-and-forth from test booklet to answer key, and find and fill in the correct bubble.

Why Didn't We Know This Earlier?

Students must rely on their visual motor speed throughout standardized tests, as they move back-and-forth from test booklet to answer key. Students don't require as much visual motor stamina in typical classroom experiences, unless they are typing long essays. Even that does not require the same level of continuous visual motor stamina as the bubble test format.

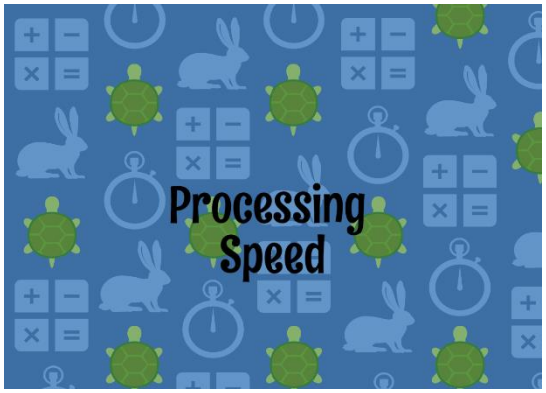
Top Priorities for Standardized Tests

1) Create an awareness of pacing so you realize if you are slowing down. Using tools like a visual timer while practicing and weighted pencils can help.
2) Practice taking full length tests to build up stamina for test day.
3) Use strategies that lessen visual-motor overload such as folding over the test booklet, using a sheet of paper to track your place, and circling your answer in the test booklet so it is easier to find.

Visual Motor Speed--What to Keep in Mind

	SAT	ACT
General	• Repeating ABCD answer key makes it easier to make mistakes	• Overall faster pace • Requires more stamina for the greater number of total questions
Math	• "Grid-in" questions will require more visual motor coordination • Cannot use a calculator on the first section which could slow you down	• Calculator can help you move faster or slow you down, so practice efficient calculator use
Optional Essay	• More back-and-forth to reference details in the passage	
If you receive accommodations	• Can't use the extra time on the sections you need it most	• You will need to budget the extra time on your own
Bottom Line: Toss Up! If you can handle the faster pace of the ACT it has some visual advantages, but the few extra seconds per question on the SAT might be helpful.		

Processing Speed



How Processing Speed Affects Standardized Test Taking

Processing speed is the rate at which a student takes in (sees/reads/hears), evaluates and responds to information. Since timing is critical on standardized tests, students with slower processing speed might have difficulty efficiently reading the question, evaluating their alternatives, and deciding on the best answer.

If your student has slower speed without any attention needs, you might find they might have difficulty finishing sections of the test. Or, they might finish by rushing and not show their best work. **You are likely to see the biggest effects of slower processing speed on skills that they enjoy less and/or they have less confidence.**

Note: *For students who have slower processing speed AND weaker attention,* ***address attention needs first****. Students must know how to manage their focus BEFORE you can help them adjust speed. If the Mindprint Summary suggested that your student works too quickly with insufficient depth of focus (i.e. too-quick processing speed) you also will want to start with attention strategies.*

Why Didn't We Know This Earlier?

Teachers usually allow for sufficient "thinking time" on tests, and some teachers might be flexible in giving students all the time they need to show their best work. On homework, students might be willing to put in extra time to complete it to the best of their ability. As a result, their grades might reflect their full reasoning and knowledge, even if they work relatively slowly.

Many educators would argue that standardized tests have too much of an emphasis on speed, putting slower, more deliberative thinkers at an unfair disadvantage. For students with above average reasoning and/or memory but ***relatively slower*** processing speed, it is the DIFFERENCE in these skills that underlies the inconsistency in how you expect the student to perform versus the student's actual performance.

Top Priorities for Standardized Tests

1) Create an awareness of pacing by sub-test. Slower processing speed will vary depending on the student's mastery and interest in the topic. Teach time-saving strategies based on sub-test.
2) Commit important information to long-term memory rather than expecting to derive (e.g. math formulas) or infer (e.g. vocabulary). This allows more time for analytical thinking.
3) Manage anxiety. A little anxiety can provide the adrenaline to work quickly. Too much anxiety will interfere with brain efficiency and cause students to work more slowly. While it's never easy to manage anxiety, when students are more confident that they can manage their time and finish, it will lessen anxiety.

Processing Speed—What to Keep in Mind

	SAT	ACT
General	• Questions are more nuanced and generally require more "thinking" time	• Prepare for an overall faster pace • Requires more "quick thinking" stamina for the greater number of total questions
Reading	• Since the SAT starts with this section, often the hardest to finish, be prepared to ramp up quickly • SAT passages are longer and more nuanced • SAT has five, longer passages	• ACT has more passages overall, if you include the Science section
Science	• If inferencing in science takes you longer, you will need to budget time for the two science passages on the Reading section	• A dedicated science section can be challenging if you do not enjoy science
Math	• The section without a calculator can be challenging if you require more time on basic calculations	• Over-using the calculator can slow you down; know when to use the calculator • Remembering and applying formulas could be more challenging
Optional Essay	• The two-step process of reading a relatively longer passage and writing could be more challenging than only writing	• Thinking of your own examples might take more time than finding supporting evidence in the passage
If you receive accommodations	• You can't use extra time on sections where you might need it more	• You will need to self-monitor where to allot your extra time
Bottom Line: The SAT might be your better bet, as the fast pace of the ACT might not be as good a fit for your pacing. Just be sure to give yourself extra practice managing your time for the SAT's no calculator math section and the longer SAT Reading section.		

Attention

How Attention Affects Standardized Test Taking

Attention refers to one's ability to get started on a task and then maintain focus for the duration of the activity, even those you do not enjoy. Sometimes students with attention challenges take longer because they are going in and out of focus. As a result, they might not finish or show their best work on every question. Alternatively, students might work too quickly. They might have scattered errors because they do not thoroughly consider all the answer choices or check their work, or they make mechanical errors such as filling in the wrong bubble on the answer sheet.

If your student had difficulty with attention on Mindprint, they might have had (1) weaker attention, (2) slow processing speed (suggesting they need a lot of effort to maintain attention), (3) very quick processing speed (suggesting impulsive responding), or (4) variability in pacing (suggesting they go in and out of focus).

Why Didn't We Know This Earlier?

Attention difficulties might only affect a student on tasks that he or she does not enjoy or that require attention stamina. Since most students do not enjoy standardized tests AND standardized tests are significantly longer than any classroom test, you might have a student who is able to sustain focus for classroom tests and assignments that are shorter or more interesting. Since anxiety can interfere with a student's ability to focus, any anxiety your student is feeling will make it even harder to focus.

In addition, teachers might remind students to go back and check their work, or even provide suggestions on which problems to go back and check. On homework, students might be willing to put in extra time to complete their homework accurately or parents might support them in quality checking. As a result, your student might be showing his best work in school where he has some support, but his attention interferes on longer, less interesting standardized tests where he needs to sustain his attention independently.

Top Priorities for Standardized Tests

1) Create an awareness of focus by sub-test. Remember, attention will have a bigger impact depending on the length of the test and the student's interest in the topic. Teach students time management and check-in strategies so they are aware of when they are losing focus.
2) Teach students HOW to check their work by sub-test, depending on how much time they have.
3) Manage anxiety. A little anxiety is good, but too much anxiety will interfere with brain efficiency and affect attention skills. While it's never easy to manage anxiety, when students are more confident that they know what to do if they lose focus, it will lessen anxiety.

Attention – What to Keep in Mind

	SAT	ACT
General	• The repeating ABCD answer key makes it easier to make mistakes • Questions more nuanced which can be a challenge for students who tend towards impulsive responding • The longer sections can make it harder to sustain focus	• Prepared for an overall faster pace • Losing focus, even briefly, can have a bigger impact
Reading	• Longer passages generally require more sustained focus • Vocabulary requires more focus to understand the context	• This section comes third when your attention might be starting to wane
Science	• The two longer science passages on the Reading section can be challenging if you are not interested in the subject	• A dedicated science section can be challenging if you do not enjoy science
Math	• Prepare strategies to check your work, especially for the section without a calculator • Look out for figures "Not Drawn to Scale"	
Optional Essay	• Reading an additional essay this late in the test could be tough if you have difficulty maintaining stamina	
If you receive accommodations	• You can't go back and spend more time on the sections where you might have lost focus	• You will need to self-monitor where you spend your extra time
Bottom Line: The shorter sections and quicker pace of the ACT might be a better bet, especially if you tend toward a too-quick pace.		

Working Memory

How Working Memory Affects Standardized Test Taking

Working memory is the short-term memory that enables you to remember multiple bits of information for multi-step tasks. Standardized tests rely heavily on working memory as students need to read the question, decide how to approach it and then figure out a solution, all while keeping in mind the mechanics of sorting through answer choices, remembering which ones they eliminated and why, and filling in their answers accurately on a separate answer sheet. Working memory tends to be most important on Reading which requires students to read, remember and apply details, and multi-step math, data and graph problems.

Why Didn't We Know This Earlier?

Standardized tests can overload working memory far more than regular classroom tests, given the added importance of following test mechanics. In addition, when students are anxious, the first skill that is often affected is working memory. As a result, even students with fine working memory in a regular environment could have much more difficulty with working memory demands on standardized tests.

Also, many teachers allow students to have devices with them most of the time. They often can look up facts, vocabulary, or formulas, have longer texts read aloud, or use their devices to highlight or organize their work. Devices can lessen the burden on working memory. As a result, your student might be very successful using strategies in school to compensate for weaker working memory without even realizing it.

Top Priorities for Standardized Tests

1) Practice test mechanics to lessen working memory load, such as circling and crossing out answers, writing notes in the margins, and keeping scrap paper neat and well organized.
2) Teach strategies specific to the sub-tests to ease working memory load.
3) Manage anxiety. Too much anxiety will interfere with efficient working memory. While it's never easy to manage anxiety, when students are more confident that they have strategies to support working memory, it will lessen anxiety.

Working Memory – What to Keep in Mind

	SAT	ACT
General	• The repeating ABCD answer key makes it easier to make mistakes • Longer questions often means more information to juggle	• The overall faster pace requires juggling information more quickly • Need more stamina for the greater number of total questions
Writing & Language/English		• Questions about re-ordering words, lines or paragraphs is a heavy working memory load
Reading	• This section comes first and usually has the heaviest toll on working memory; if you are most anxious at the start, it will have an even bigger impact • Longer passages generally require juggling more information especially for the main idea/conceptual questions • In longer passages it can be more challenging to find and keep track of a specific word or line in the text	• This section comes third and can have the heaviest toll on working memory, so you will need to maintain stamina • The questions are not given in the sequential order of the passage which is tough on working memory; consider not answering in order
Science		• A dedicated section referencing charts is a heavy working memory load • More interpolation on charts rather than finding a specific point
Math	• The no calculator section can be harder if you require more effort for basic calculations • Grid-in answer format takes more effort to transfer your answer • Each problem tends to be longer with more steps	• Need to memorize formulas and efficiently apply them in a stressful situation
Optional Essay	• Referencing the essay adds an additional burden on working memory	• Evaluating three prompts to decide what to write can make it more difficult to get started
If you receive accommodations	• You can't spend more time on the sections where you might need it most	• You will need to self-monitor where you spend your extra time—one more thing to remember
Bottom Line: The shorter, more direct questions of the ACT might make it a better bet provided you are comfortable with the dedicated Science section.		

How Flexible Thinking Affects Standardized Test Taking

Flexible thinking affects your ability to adapt to unexpected, open-ended or novel problems, or handle disappointing or challenging situations. On standardized tests, students must work efficiently through a variety and somewhat random ordering of problem types. Students need to quickly identify the best strategy for the specific problem and then readily adjust if their solution doesn't match the answer key, either by trying a new approach or recognizing a mistake. On test day, they might need to adapt to a new, and sometimes sub-optimal, testing environment.

Why Didn't We Know This Earlier?

Many bright students rely on their stronger abstract and verbal reasoning skills to quickly understand the content, perhaps ahead of their peers. As a result, they don't need to rely on flexible thinking to handle what to others might feel like a challenging, novel or unexpected problem. In addition, many teachers are more predictable than a standardized test. Students might come to class familiar with what types of problems will be on the test, so again, they are relying on reasoning rather than flexible thinking to succeed.

Students with weaker flexible thinking might have difficulty adapting to the unfamiliar physical test environment, such as an uncomfortable desk, not having their typical seat, sitting near someone who makes disturbing noises, etc. While these might be minor inconveniences to most students, it could feel overwhelming to students with weaker flexible thinking if they aren't prepared.

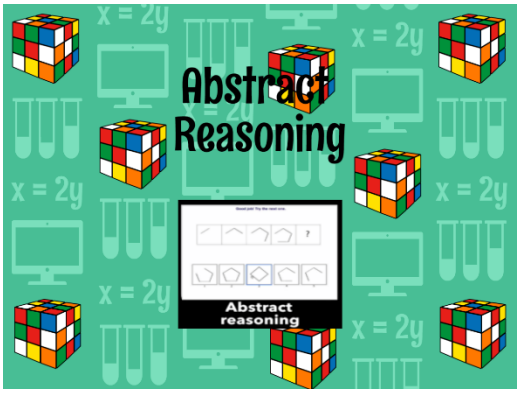
Top Priorities for Standardized Tests

1) Have strategies for how to approach unfamiliar or unexpected problems. Use specific, step-by-step approaches so you know exactly what to do if you feel out of your comfort zone.
2) Prepare for all the potential scenarios you might encounter on test day. While these scenarios might be low probability, be prepared for exactly what you will do if an unfortunate situation arises.
3) Practice variety, which includes mixing up the order of problem types, the difficulty level of problems, and handling "curve balls". As you grow more comfortable adjusting to uncertainty, you will become better at handling the unexpected challenges you might encounter on test day.

Flexible Thinking – What to Keep in Mind

	SAT	ACT
General	• Questions tend to be more nuanced/less-straightforward requiring more flexible thinking	• Less time per question, requires adapting quickly if your first instinct is incorrect
Writing & Language/English	• Requires inferential thinking around main idea and context	• Requires more decisions about the *best* grammar option (not just the right one)
Reading	• Need to be prepared for the passages to come in any order • Passages are relatively more complex with more inferential thinking • Vocabulary requires more inferential thinking	• The questions are not given in the sequential order of the passage, which can feel confusing
Science	• Requires more adjusting since the questions are interspersed across all three sections	• At least one passage asks students to evaluate conflicting viewpoints which requires understanding multiple approaches
Math	• Can't use answers on the "grid-in" questions to help if you don't know how to get started • Can't rely on figures that are "Not Drawn to Scale"	• Requires more interpolation on graphs and ignoring extraneous information
Optional Essay		• Must choose a perspective and analyze others' perspectives, which can be difficult to decide
If you receive accommodations	• You can't spend your extra time on the sections where you might need it most	• You will need to decide where you will spend your extra time
Bottom Line: The ACT questions tend to be more straight-forward and predictable which can be more comfortable for students with weaker flexible thinking. Students with strong flexible thinking might <u>outperform</u> on the SAT.		

Abstract Reasoning



How Abstract Reasoning Affects Standardized Test Taking

Abstract reasoning refers to how you draw inferences and analyze information involving objects, images or numbers when you are not given a concrete, verbal explanation. You use your abstract reasoning when you solve math and science problems and, to a certain extent, when you make inferences in reading comprehension.

Why Didn't We Know This Earlier?

With effort, motivation and the right strategies, your student can work through even the most challenging problems. If your student has a relative weakness in abstract reasoning, he might take a bit longer to understand concepts, but perseverance and a supportive academic setting enable him to achieve mastery. In addition, if your student has stronger memory or verbal reasoning, he might be using these skills to help him compensate in the classroom. However, a relative weakness can cause difficulty on a standardized test when you need to interpret novel, complex problems under significant time constraints.

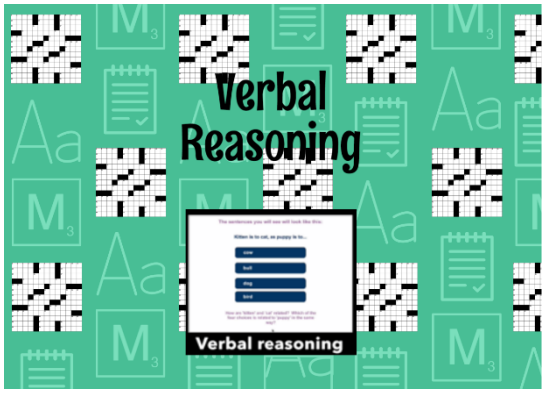
Top Priorities for Standardized Tests

1) Identify patterns of difficulty by sub-test and provide plenty of practice problems in that skill to ensure mastery.
2) If your memory is stronger, memorize additional information such as formulas, multi-step problem solving processes, and vocabulary.
3) Have clear strategies for tackling challenging problems, including how to eliminate answers before guessing, maximum time to spend per problem, and key phrases that clue you into the problem type.

Abstract Reasoning – What to Keep in Mind

	SAT	ACT
General	• Questions tend to be more nuanced/less-straightforward	
Reading	• Passages require more inferencing • Vocabulary requires more inferencing	• Questions are not given in the sequential order of the passage
Science	• Scientific reasoning on all three sections • The two, relatively longer science-related passages on the Reading section can be challenging	• The dedicated section relies heavily on abstract reasoning • At least one passage asks students to evaluate conflicting viewpoints • Requires more interpolation on graphs and ignoring extraneous information
Math	• Can't use answers on the "grid-in" questions to help you get started or check your answer • Need to be careful of figures "Not Drawn to Scale"	• Covers more total concepts so more content to master
Optional Essay	• Reading an additional essay and interpreting it can be hard.	
If you receive accommodations	• Can't use your extra time where you need it most	
Bottom Line: The ACT questions tend to be more straight-forward and predictable which can be easier for students with weaker abstract reasoning. However, you need to weigh that against the dedicated Science section and the greater number of math topics covered.		

Verbal Reasoning



How Verbal Reasoning Affects Standardized Test Taking

Verbal reasoning refers to how you draw inferences and make connections while reading or listening, without having a detailed explanation. Students use verbal reasoning on the reading comprehension section, but also when they are reading math and science problems, writing, and following instructions.

Why Didn't We Know This Earlier?

With effort, motivation and the right strategies, your student can work through even the most challenging problems. If your student has a relative weakness in verbal reasoning, he might take a bit longer to understand what he reads, but perseverance and a supportive academic setting enable him to master the content. In addition, if your student has stronger memory or stronger abstract reasoning, he might be using these relative strengths to support his learning in the classroom. However, it can be difficult on a standardized test to read and understand under significant time constraints.

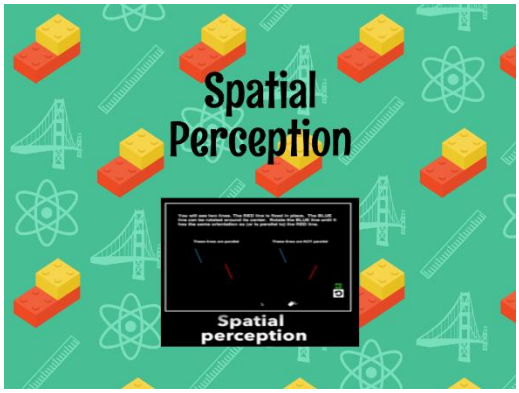
Top Priorities for Standardized Tests

1) Identify any specific difficulties by sub-test and provide plenty of practice in that area.
2) If your student's memory is stronger, memorize additional information such as vocabulary, multi-step processes, and key instructions.
3) Provide clear strategies for tackling challenging problems, including how to eliminate answers before guessing, maximum time to spend per problem, and key phrases that clue you to the problem type.

Verbal Reasoning – What to Keep in Mind

	SAT	ACT
General	• Questions tend to be more nuanced/less-straightforward	
Reading	• Longer passages that generally require more inferencing • Vocabulary requires more inferencing • This section comes first and might be the most challenging, so be prepared to work on this right away	• The questions are not given in the sequential order of the passage
Science		• All the science questions are in the form of reading passages • At least one passage asks students to evaluate conflicting viewpoints which can be challenging
Math		• The ACT questions are shorter, and are generally considered to be more straight-forward
Optional Essay	• Reading an additional essay might feel challenging, especially so late in the test	
If you receive accommodations	• Can't use your time on the sections where you need it the most	
Bottom Line: The ACT questions tend to be more straight-forward and predictable which can be easier for students with weaker verbal reasoning. Also, if your writing skills are stronger than your reading skills, you might prefer not needing to read the extra reading passage on the SAT's Essay section.		

Spatial Perception



How Spatial Perception Affects Standardized Test Taking

Spatial perception refers to how one perceives and understands visual materials and the relative positioning of objects in space. Spatial perception can affect how efficiently students are able to work back-and-forth from test booklet to answer key. Spatial perception also can be important in specific topics such as geometry, trigonometry and understanding graphs and charts. Some students with weaker spatial perception might have difficulty keeping their eyes focused on longer reading passages, especially when they get tired.

Why Didn't We Know This Earlier?

Students must rely on their spatial perception throughout the test taking experience to fill in the answer key. While spatial perception is important in many academic tasks, students often can rely on stronger reasoning or memory skills to compensate. However, on standardized tests, the continuous visual-spatial stamina required in the bubble test format could affect their efficiency throughout, as well as in some content areas.

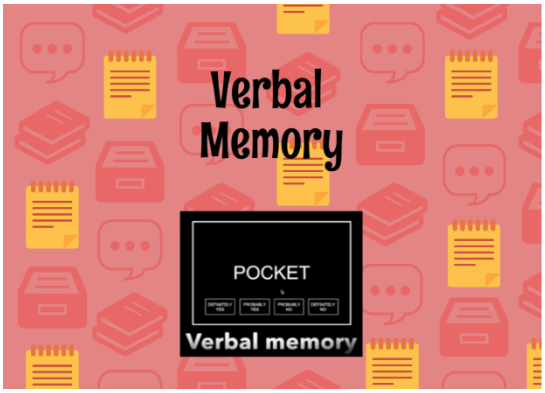
Top Priorities for Standardized Tests

1) Create an awareness of their pacing so they realize if they are slowing down, particularly on reading comprehension that requires sustained visual stamina. Using tools like a visual timer during practice can help monitor pacing.
2) Practice taking full length tests to build up stamina for test day.
3) Use strategies that lessen visual-spatial processing overload: e.g. folding over the test booklet, using a sheet of paper to track your place, and circling your answer in the test booklet so it is easier to find.

Spatial Perception – What to Keep in Mind

	SAT	ACT
General	• Repeating ABCD answer key makes it easier to make mistakes	• Prepare for an overall faster pace • Requires more visual stamina for the greater number of total questions
Reading	• The longer passages make it more challenging to scan for a specific word or line in the text	• This section comes third and can have the biggest visual toll, so it is important to maintain your stamina
Science	• Need to interpret graphs and charts on all three sections	• Requires more interpolation on graphs and ignoring extraneous information • A dedicated section interpreting graphs could be challenging
Math	• Problems tend to be longer with more steps to write • Look out for the "Figure Not Drawn to Scale"	• More geometry, measurement, and trigonometry problems
If you receive accommodations	• Can't use your time on the sections where you need it the most	
Bottom Line: Toss Up! The visual advantages of the ACT might make the test mechanics easier. However, you might find the graphs and charts and the Math content more challenging on the ACT.		

Verbal Memory



How Verbal Memory Affects Standardized Test Taking

Verbal memory reflects how efficiently you can remember what you read and hear over a period of hours, days, weeks or years. While neither the SAT nor the ACT measures direct recall of facts or vocabulary, students who have stronger memory students will find it easier and more efficient to answer questions if they can rely on their long-term memory for efficient recall of vocabulary, grammar phrases, and previously attempted problems. On Subject and AP Tests, verbal memory can be extremely important as there is direct assessment of learned, factual knowledge.

Why Didn't We Know This Earlier?

Many teachers often allow students to have devices with them, which they can use to look up facts, vocabulary or formulas and lessen the burden of memorization for students who have a relative weakness. Since classroom tests usually don't have the same time sensitivities, students also might have time to use their reasoning skills to "figure out" what they might have forgotten, rather than needing to rely on direct recall.

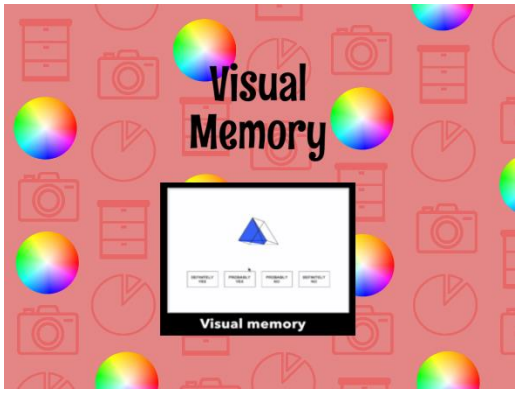
Top Priorities for Standardized Tests

1) Identify any gaps in learned knowledge by sub-test. Prioritize what needs to be memorized in the Reading & Grammar and Math & Science sections and create a schedule to memorize what is practical.
2) Use strategies to enhance effective retention based on the recommendations in your Mindprint Profile and Toolbox, such as using pictures, spaced repetition, or making connections to learned information.
3) Choose the test that relies less on your memory gaps. Have strategies of what to do during the test if you forget.

Verbal Memory – What to Keep in Mind

	SAT	ACT
General		• The faster pace might not provide enough time to recall and apply what you need
Writing & Language/English		• Requires more recognition of homophones and figures of speech
Reading	• Vocabulary is more nuanced so recognizing words with multiple meanings is important	
Optional Essay		• Anticipate drawing on prior knowledge to write your answer
If you receive accommodations	• Can't use your time on sections where you might need it most	
Bottom Line: Toss Up! The faster pace of the ACT might not give you sufficient time to recall and apply what you need and you might find the essay harder to write if it's not a topic you are very familiar with. However, the SAT tends to draw on more learned knowledge which might be harder for you.		

Visual Memory



How Visual Memory Affects Standardized Test Taking

Visual memory reflects how efficiently you can remember numbers, objects, or other non-language based information over a period of hours, days, weeks or years. While neither the SAT nor the ACT measures direct recall of visual information, students will find it easier and more efficient to answer questions if they can rely on their long-term memory for efficient recall of math formulas, figures and concepts, especially on the ACT. In addition, some students are very effective using their stronger visual memory to help them remember language-based information. On Subject and AP Tests, visual memory can be important as there is more direct assessment of what students have memorized in diagrams, charts and formulas.

Why Didn't We Know This Earlier?

Students do not need to rely on visual memory nearly as much as they do on verbal memory for classroom learning, and students might be willing to spend as much time as needed to memorize for classroom tests that require them to remember charts, diagrams and other visual information. Also, many teachers allow students to have devices with them, which they often can use to look up formulas or images. Devices lessen the burden of memorization for students who have a relative weakness in visual memory. Since classroom tests usually don't have the same time sensitivities as standardized tests, students also can take time to derive what they might have forgotten rather than needing to directly recall it.

Top Priorities for Standardized Tests

1) Identify any gaps in learned knowledge by sub-test. Prioritize what needs to be memorized in the Math & Science sections and create a schedule to memorize key information.
2) Use strategies to enhance effective retention based on the recommendations in your Mindprint Profile and Toolbox, such as describing images in words, spaced repetition, or making connections to learned information.
3) Consider choosing the test that relies less on your memory gaps. Have strategies for what to do during the test if you realize you have forgotten something you think you know.

Visual Memory – What to Keep in Mind

	SAT	ACT
General		• The faster pace might not provide enough time to remember and apply what you need
Science		• While there's nothing explicitly to memorize, students tend to draw on connections to previously learned information, which could make this section tough
Math		• Need to memorize formulas • More geometry and trigonometry problems • Covers more total concepts
If you receive accommodations	• Can't use your extra time on the specific sections you might need it the most, math and science	
Bottom Line: The SAT might be a better choice, as it provides the formulas, does not cover as much geometry and trigonometry, and gives more time per question to recall what you know.		

The 12 Keys to Improved Performance

SAT vs. ACT: What to Consider

1. Some students, regardless of how well they know the information, work at a slower pace. Since the average time per question on the SAT is 70 seconds, compared to 50 seconds on the ACT, students with slower **processing speed** might do better on the SAT.

2. If you have weaker **working memory** you might forget the details of what you read, even if you understand it. The ACT has more short passages rather than fewer longer passages, making it preferable for those with weaker working memory.

3. Students with weaker **attention** have difficulty staying focused on long tasks, especially those they don't like, i.e. long standardized tests! While the combined lengths of both tests is almost the same, the ACT sections are shorter which is better for those who have trouble pacing themselves or keeping focused.

4. If you don't enjoy the **abstract reasoning** of science, the SAT might be better. Yes, the new SAT has at least one passage dedicated to science, but the ACT has an entire 35 minute science section. If you don't like science, or your abstract reasoning isn't strong, the SAT is a better choice.

5. If your **verbal memory** isn't strong, you likely find it harder to memorize vocabulary. Neither test has a vocabulary section, but the SAT still has more vocabulary in context than the ACT. The ACT will be better for students with weaker verbal memory.

6. If your **verbal reasoning** isn't as strong as your other skills, the ACT might be better. The reading comprehension sections in the SAT are longer, and they also tend to be more nuanced and complex. Also, if you're taking the optional essay, the SAT requires you to read an additional passage, the ACT doesn't.

7

If math makes you **anxious**, you might prefer the ACT. When you are anxious it's hard to use your **working memory** for mental math or remembering formulas. The ACT allows a calculator for every question. Also, every question is multiple choice, unlike the SAT with 20% of the math section as grid-in. Knowing you have a calculator can reduce anxiety so you can think more clearly. Keep in mind, though, the ACT doesn't give the basic formulas while the SAT does, so be sure you can rely on your **visual memory** .

8

The ACT has more geometry and trigonometry than the SAT, two subjects that rely heavily on **spatial perception** and **visual memory**. Choose the SAT if your visual skills are weaker.

9

If you fear messing up the bubble test format, often a result of weaker **spatial perception** , you might prefer the ACT. The spacing on the ACT is easier to read. But the biggest advantage is that the ACT switches the answer key between ABCD and EFGH, so you're much less likely to make a mistake or catch it quicker if you do.

10

Know yourself! The SAT starts with Reading, what many students find the most difficult section to finish. In contrast, the ACT starts with English (Writing & Language on the SAT), the section most students find easiest to finish. Some students prefer to get the Reading section behind them first, while others prefer to build up to it.

11

If you find you easily get frustrated with identifying the "best answer" you might have weaker **flexible thinking**. Some of the strongest students have weaker flexible thinking and prefer the ACT because questions on the ACT tend to be more straight-forward. In contrast, students with stronger flexible thinking might outperform on the SAT.

12*

If you qualify for extra time, think carefully about your needs. If you have difficulty budgeting your time, the SAT might be better because it allots extra time per section. However, if you find you only need extra time on certain sections, the ACT gives you the flexibility to use your extra time on the sections where you need it most.

Weakest Skill(s)	Preferred Test	Why	How to Decide
Visual Motor Speed	Toss Up!	The ACT it has the visual advantages of the alternating answer key, but the few extra seconds per question and few questions on the SAT might be better.	Which, if any, sections do you have difficulty finishing without rushing? Decide based on the section where you can make up the most time with practice.
Processing Speed	Usually SAT	The SAT might be your better bet, as the fast pace of the ACT might not be as good a fit for your pacing. Just be sure to give yourself extra practice managing your time for the SAT's no calculator math section and the longer SAT Reading section.	If you think you can hit your target on the SAT Reading and no calculator Math with practice, go with the SAT
Attention/Too Quick Processing Speed	ACT	The shorter sections and quicker pace of the ACT might be a better bet, especially if you tend toward a too-quick pace.	Unless you are doing much better on the SAT diagnostic, the ACT is likely to be better
Working Memory	Usually ACT	The shorter, more direct questions of the ACT might make it a better bet provided you are comfortable with the dedicated Science section.	If you are comfortable on the ACT Science, the ACT is likely to be better
Flexible Thinking	ACT	The ACT questions tend to be more straight-forward and predictable which can be more comfortable for students with weaker flexible thinking.	If you are comfortable on the ACT Science, the ACT is likely to be better
Abstract Reasoning	Usually ACT	The ACT questions tend to be more straight-forward and predictable which can be easier for students with weaker abstract reasoning. However, you need to weigh that against the dedicated Science section and the greater number of math topics covered.	If you are comfortable on the ACT Science and you have time to learn all the ACT Math topics, the ACT is likely to be better
Verbal Reasoning	ACT	The ACT questions tend to be more straight-forward and predictable which can be easier for students with weaker verbal reasoning. Also, if your writing skills are stronger than your reading skills, you might prefer not needing to read the extra reading passage on the SAT's Essay section.	Unless you are doing much better on the SAT diagnostic, the ACT is likely to be better
Spatial Perception	Toss Up!	The visual advantages of the ACT might make the test mechanics easier. However, you might find the graphs and charts and the Math content more challenging on the ACT.	If you are not having difficulty with the test mechanics on the SAT (e.g. gridding answers, filling in bubbles without mistakes) the SAT might be better
Verbal Memory	Toss Up!	The faster pace of the ACT might not give you sufficient time to remember and apply what you need and you might find the essay harder to write if it's not a topic you are very familiar with. However, the SAT tends to draw on more learned knowledge which might be harder for you.	If there is a lot you will need to learn (that you have forgotten) the ACT might be better, provided you aren't having difficulty with the pace of the ACT. Expect your pace to improve the more you study.
Visual Memory	SAT	The SAT might be a better choice, as it provides the formulas, does not cover as much geometry and trigonometry, and gives more time per question to recall what you know.	Unless you are doing much better on the ACT diagnostic, the SAT is likely to be better