Section I

# DAT STRATEGIES

CHAPTER ONE

# Introduction to the DAT

The Dental Admissions Test (DAT) is a component of a complete application for admission to most dental schools in the United States and Canada. The American Dental Association (ADA) Department of Testing Services administers the DAT at Prometric Test Centers as part of the application process for dental school. Scores earned by examinees are an important part of the dental school admissions process because they provide a common factor for schools to use in comparing applications for admission. Your Kaplan program is designed to launch you along the path to your career in dentistry by helping you achieve the best score possible on the DAT.

The DAT is likely different from any other test you have encountered in your academic career. It is unlike the knowledge-based exams common in high schools and colleges that emphasize memorizing information; dental schools can assess your academic prowess by looking at your transcript instead. The DAT is not even like other standardized tests that focus on proving your general skills. Dental schools use DAT scores to assess whether you possess the foundation upon which to build a successful dental career. Though you certainly need to know the content to do well, the focus is on thought processes. The DAT emphasizes reasoning, critical thinking, reading comprehension, data analysis, and problem-solving skills.

The DAT's power comes from its use as an indicator of your abilities: Good scores can open up many opportunities for you. Your power comes from preparation and mindset. The key to DAT success is knowing what you are up against. That's where this book helps. You'll learn the philosophy behind the test, review the sections one by one, attempt sample questions, master Kaplan's proven methods, and understand what the test makers really want. You'll get a handle on the process; find a confident, new perspective; and achieve your highest possible scores.

The DAT should be viewed as an opportunity to show dental schools who you are and what you can do, just like any other part of your application. Take control of your DAT experience.

## THE COMPUTER-BASED TEST

The DAT is conducted by the American Dental Association (ADA) and has been in operation on a national basis since 1950. The DAT is administered year-round at test centers operated by Prometric. The official DAT website is found at **ada.org/dat** and is where you begin the process of registering for the DAT. You will also find the DAT Guide and a PDF of Frequently Asked Questions as well as many other resources for DAT test takers.

To register for the DAT or apply for admission to dental school, you will need a DENTPIN. The DENTPIN is a standardized personal identifier used by the agencies responsible for the accreditation of dental school applicants. To obtain or retrieve a DENTPIN, visit **ada.org/dentpin.** Once you have a DENTPIN, you will be able to submit an electronic application at **ada.org** using a credit card. To request a paper application, call 1-800-232-2162.

After your application and fee are processed, you will receive instructions to contact Prometric (**prometric.com**) to arrange a date, time, and location for your test. Plan to register several weeks in advance of when you want to take the test so you can arrange the best time and location. Any corrections to your application must be completed at least two weeks prior to your test date, and rescheduling your test incurs a rescheduling fee that varies according to the advance notice you provide.

The DAT is administered exclusively on the computer and can be taken almost any day of the year. To check in for your testing session, you will need your admission ticket (emailed to you as confirmation of your registration) and two forms of valid, nonexpired identification with signature, one of which must be government-issued and contain a photograph of you, such as a driver's license, passport, state ID, or military ID. The first and last names on your admission ticket must match your personal IDs exactly; however, IDs with only middle initial or with no middle name included will be accepted. At the testing center, additional security procedures such as photos or digital fingerprints may be taken to confirm and record your identity.

During the test, time is kept via a countdown timer in the corner of the screen. You will not be allowed to wear a watch and may not have access to a clock. One 15-minute rest break is scheduled for the middle of the test. You may take additional breaks with the permission of the proctor, but the test timer will continue running, and you will lose that time. Even if you are not at the computer, the test will continue to run itself, and successive sections will start automatically if time for the previous section has elapsed.

An on-screen periodic table is provided for only the Survey of Natural Sciences section, and an on-screen calculator is provided for only the Quantitative Reasoning section. The testing center provides a noteboard and marker to use for taking notes and writing out calculations. If you need to replace your noteboard or marker, you may ask the proctor for a new set any time during the test (although if this is during a section, your time will continue to elapse). You will not be allowed to bring your own calculator, writing utensils, or paper.

## CONTENT

The DAT is, among other things, an endurance test. It consists of four sections and 280 multiple-choice questions. Add in the administrative details at both ends of the testing experience plus the break halfway through the test, and you can count on being in the test room for almost five hours. It can be a grueling experience, to say the least. If you do not approach the DAT with sufficient confidence and stamina, you may quickly lose your composure. That's why taking control of the test is so important.

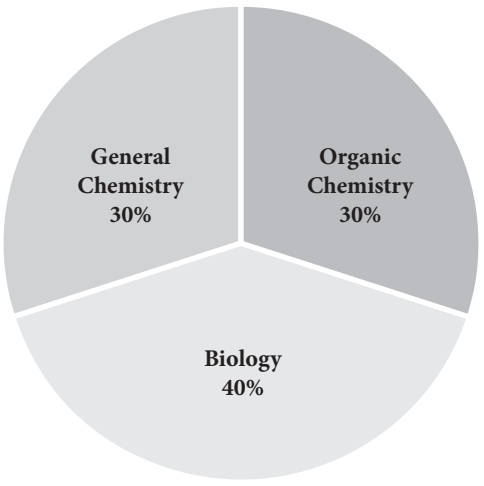
The DAT consists of four timed sections: the Survey of Natural Sciences (with Biology, General Chemistry, and Organic Chemistry), Perceptual Ability, Reading Comprehension, and Quantitative Reasoning. In this book, we'll take an in-depth look at each DAT section with content review, sample questions, and specific, test-smart hints.

### Survey of the Natural Sciences

**Time:** 90 minutes (54 seconds per question)

**Format:** 100 multiple-choice questions, subdivided into Biology, General Chemistry, and Organic Chemistry

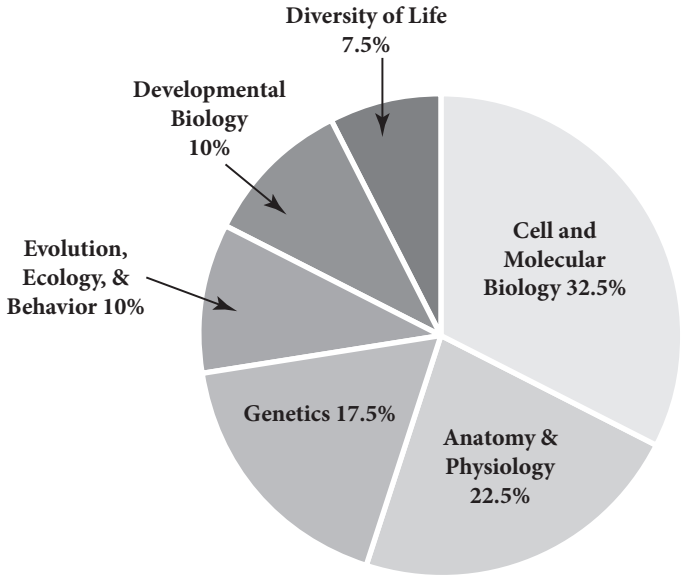
**What it tests:** Knowledge of university-level sciences




**The distribution of Survey of Natural Sciences questions**

**Figure 1.1**

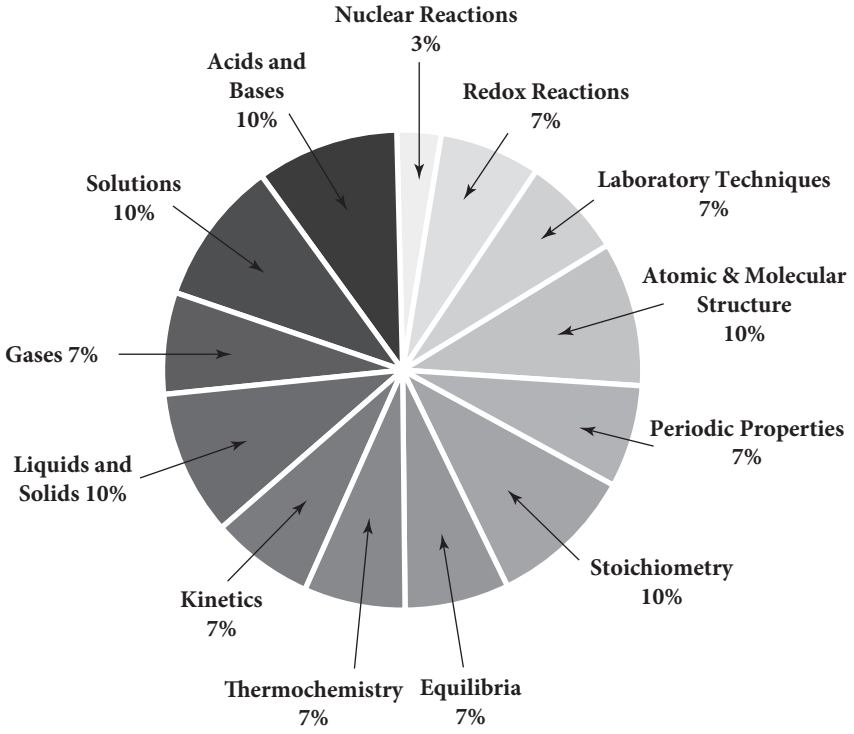
**Biology** (40 questions): Structure and Function of Systems (Anatomy and Physiology) (22.5%); Developmental Biology (10%); Diversity of Life (7.5%); Cell and Molecular Biology (32.5%); Genetics (17.5%); Evolution, Ecology, and Behavior (10%)




**The distribution of Biology questions**

**Figure 1.2**

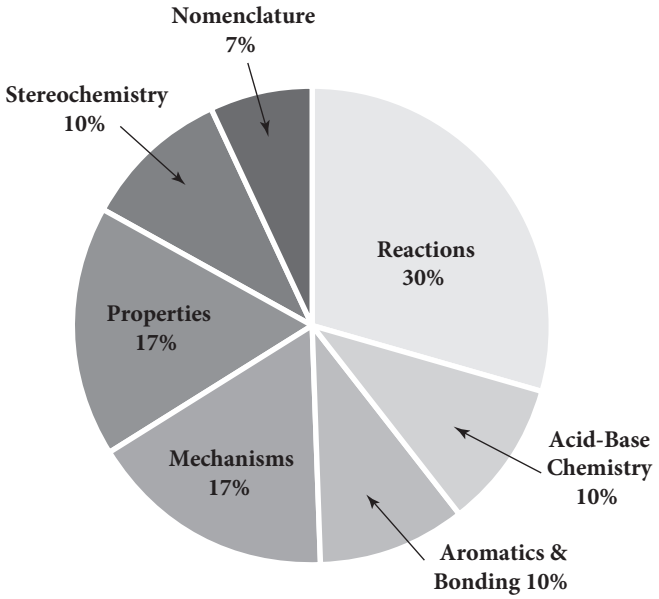
**General Chemistry** (30 questions): Stoichiometry and General Concepts (10%), Gases (7%), Liquids and Solids (10%), Solutions (10%), Acids and Bases (10%), Chemical Equilibria (7%), Thermodynamics and Thermochemistry (7%), Chemical Kinetics (7%), Oxidation-Reduction Reactions (7%), Atomic and Molecular Structure (10%), Periodic Properties (7%), Nuclear Reactions (3%), and Laboratory Techniques (7%)




**The distribution of General Chemistry questions**

**Figure 1.3**

**Organic Chemistry** (30 questions): Reaction Mechanisms (17%), Chemical and Physical Properties of Molecules (17%), Stereochemistry (10%), Nomenclature (7%), Reactions (30%), Acid-Base Chemistry (10%), and Aromatics and Bonding (10%)




**The distribution of Organic Chemistry questions**

**Figure 1.4**

## Perceptual Ability

**Time:** 60 minutes (40 seconds per question)

**Format:** 90 multiple-choice questions, subdivided into six parts of 15 questions each:

Keyholes (Apertures)

Top-Front-End (View Recognition)

Angle Ranking

Hole Punching (Paper Folding)

Cube Counting

Pattern Folding (3D Form Development)

**What it tests:** Ability to visualize and manipulate objects mentally in three dimensions; angle discrimination

## Reading Comprehension

**Time:** 60 minutes (20 minutes per passage)

**Format:** 50 multiple-choice questions; three passages with 16–17 questions following each

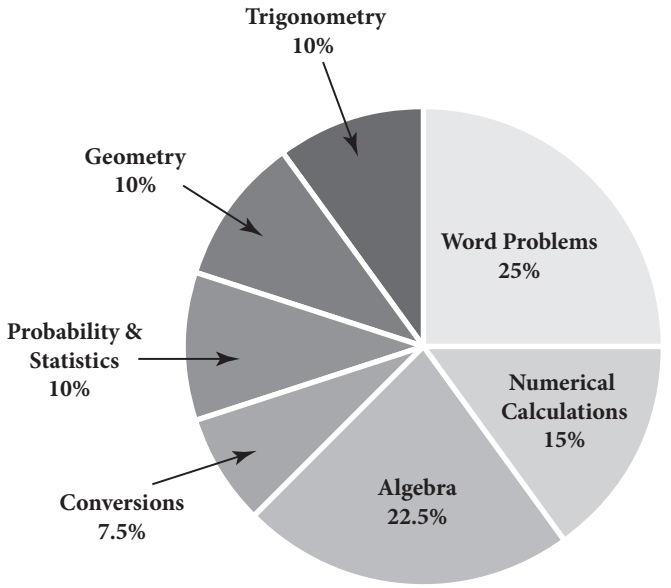
**What it tests:** ability to comprehend, analyze, and interpret reading passages on scientific topics

### Quantitative Reasoning

**Time:** 45 minutes (67.5 seconds per question)

**Format:** 40 multiple-choice questions

**What it tests:** Algebra (22.5%), Numerical Calculations (15%), Conversions (7.5%), Probability and Statistics (10%), Geometry (10%), Trigonometry (10%), and Applied Mathematics (Word) Problems (25%)




**The distribution of Quantitative Reasoning questions**

**Figure 1.5**

## SCORING

The DAT is scored on a 1 to 30 scale. For each section of the test, the actual number of multiple-choice questions you answer correctly per section is your **raw score**. All multiple-choice questions are worth the same amount—one raw point—and there's no penalty for incorrect answers. That means you should always fill in an answer for every question whether you have time to fully invest in that question or not. Never let time run out on any section without filling in an answer for every question.

Your raw scores will not appear on your score report. Instead, they are converted to yield your **scaled scores**, the ones that fall somewhere in that 1–30 range. These scaled scores are reported to schools as your DAT scores.

In addition to scaled scores for individual sections, schools are also provided a **composite score**, which is a scaled score that factors in your performance on all the sections. Your composite score is not merely an average of the scores from all the sections but rather an evaluation of your performance on the entire test.

Your score report will tell you—and your potential dental schools—not only your scaled scores but also the **percentile** ranking that corresponds with your scaled score in each section. A percentile ranking reflects how many test takers out of 100 scored at or below your level. For example, a percentile of 80 means that 80 percent of test takers did as well as or worse than you did, and only 20 percent did better.

### What's a Good Score?

What defines a good score can vary significantly based on personal situation. Much depends on the strength of the rest of your application (e.g., if your transcript is first-rate, then the pressure to do well on the DAT isn't as intense) and on where you want to go to school (e.g., different schools have different score expectations).

For each administration, the average scaled scores are approximately 17 for each section; this equates to the 50th percentile. To be considered competitive, you'll likely want to score above the 50th percentile. Especially competitive schools may want scores above the 70th percentile range. It's important to check the scores for each individual school. One commonality is that most schools will consider scores that are evenly distributed across sections to be more favorable than a very high performance on one section offset by a very low performance on another section of the test. Performing consistently across the board is preferred.

Because all of your section scores factor into your cumulative score, maximizing your performance on every question is important. Just a few questions one way or the other can make a big difference in your scaled score. Make an extra effort to score well on a test section if you did poorly in a corresponding class; the best revenge for getting a C in chemistry class is acing the Chemistry section of the DAT!

## WHAT THE DAT REALLY TESTS

It's important to grasp not only the nuts and bolts of the DAT (so you know what to do on Test Day) but also the underlying principles of the test (so you know why you're doing what you're doing). The straightforward facts tested by the DAT are covered throughout this book, but now it's time to examine the heart and soul of the exam to see what it's really about.

### The Myth

Most people preparing for the DAT fall prey to the myth that the DAT is a straightforward science test. They think something like this:

> *The DAT covers the two years of science I had to take in school: biology, chemistry, and basic organic chemistry, plus math and something to do with perceptual ability. The important stuff is the science, though. After all, we're going to be dentists.*

Here's a little-known secret: the DAT is not just a science test; it's also a critical thinking test. This means the test is designed to let you demonstrate your thought processes as well as your thought content. The implications are vast. Once you shift your test-taking paradigm to match the test makers', you'll find a new level of confidence and control over the test. You'll begin to work with the nature of the exam rather than against it. You'll be more efficient and insightful as you prepare for the test, and you'll be more relaxed on Test Day. In fact, you'll be able to see the test for what it actually is rather than for what students fear it to be. We want your Test Day to feel familiar, not awkward!

## The Zen of DAT

Dental schools do not need to rely on the DAT to evaluate what content you already know; admission committees can measure your subject-area proficiency using your undergraduate coursework and grades. Schools are interested instead in the potential of your mind. In recent years, many dental schools have shifted pedagogic focus away from an information-heavy curriculum to a concept-based curriculum. Currently, more emphasis is placed on problem solving, holistic thinking, and cross-disciplinary study. This trend affects you right now because it's reflected in the DAT. Every good tool matches its task. In this case, the tool is the DAT, which is used to measure you and other candidates, and the task is to quantify how likely it is you will succeed in dental school. In fact, research shows the DAT is correlated with success in dental school, and, together with undergraduate GPA, is an excellent tool for schools to determine which applicants are likely to be the top—and the bottom—students.

Therefore, your intellectual potential—how skillfully you annex new territory into your mental boundaries, how quickly you build connections between ideas, and how confidently and creatively you solve problems—is far more important to admission committees than your ability to recite the $pK_a$ for every acid known to humankind. Schools assume they can expand your knowledge base. They choose applicants carefully because expansive knowledge is not enough to succeed in dental school or in the profession. There's something more, and it's this something more that the test is trying to measure. Every section on the DAT tests essentially the same higher-order thinking skills: analytical reasoning, abstract thinking, and problem solving. Most test takers get trapped into thinking they are being tested strictly about their knowledge of science and math. Thus, they approach each section with a new outlook on what's expected. This constant mental shifting of gears can be exhausting and counterproductive. Instead of perceiving the DAT as parsed into radically different sections, maintain your focus on the underlying nature of the test; each section presents a variation on the same theme. The DAT is not just about what you know; it's also about how you think.

## What About the Science?

With this perspective, you may be left asking questions: *What about the science? What about the content? Don't I need to know the basics?* The answer to each is a resounding *Yes!* You must be fluent in the different languages of the test. You cannot do well on the DAT if you don't know the basics of biology, general chemistry, organic chemistry, and mathematics. The best approach to learning that content is to take one year each of biology, general chemistry, and organic chemistry and then review the content in this book thoroughly before taking the DAT. Knowing these basics is just the beginning of doing well on the DAT, though. That's a shock to most test takers. They presume that once they relearn their undergraduate science they are ready to do battle against the DAT. Wrong! Test takers with only this minimum of knowledge merely have directions to the battlefield and lack what they need to actually beat the test: an understanding of the test makers' battle plans. You won't merely be drilled on facts and formulas on the DAT; you will need to demonstrate the ability to reason based on ideas and concepts. The science questions are painted with a broad brush to test your general understanding.

## THE DAT MINDSET

In addition to being a thinking test, the DAT is a standardized test. As such, it has its own consistent patterns and idiosyncrasies, which can actually work in your favor. This is the key to why test preparation works: You have the opportunity to familiarize yourself with those consistent peculiarities and adopt the proper test-taking mindset.

The DAT mindset is something to bring to every question, passage, and section you encounter. Being in the DAT mindset means reshaping the test-taking experience so you are in control. Answer questions *when* you want to; feel free to skip tough but feasible passages and questions, coming back to them only after you've racked up points on easy ones. Answer questions *how* you want to; use Kaplan shortcuts and methods to get points quickly and confidently, even if those methods aren't exactly what the test makers had in mind when they wrote the test.

Some overriding principles of the DAT mindset that will be covered in-depth in the chapters to come are as follows:

- Read actively and critically.
- Translate prose into your own words.
- Save the toughest questions and passages for last.
- Know the test and its components inside and out.
- Do DAT-style problems in each topic area after you've reviewed it.
- Allow your confidence to build on itself.
- Complete full-length practice tests to break down the mystique of the real experience.
- Know that you are going to make mistakes and learn from those mistakes to get the most out of your practice.
- Stick with the new methods you'll be learning. Some might take more practice than others, but when mastered, all will pay off on Test Day by saving you valuable time and earning you more points.
- Look at the DAT as a challenge and the first step in your new career rather than as an arbitrary obstacle.

The DAT mindset boils down to being proactive and taking control of the testing experience so you can get as many points possible as quickly and as easily as you can. Keep this in mind as you read and work through the material in this book and as you face the challenge on Test Day.

### The Four Basic Principles of Good Test Mentality

Knowing the test content arms you with the tools you need to do well on the DAT, but you must wield those tools with the right frame of mind and in the right spirit. Good test mentality involves taking a certain stance toward the entire test. Here's what's involved:

#### *1. Test awareness*

To do your best on the DAT, always keep in mind that the test is like no other test you've taken before, both in terms of content and in terms of the scoring system. If you took a test in high school or college and got a number of the questions wrong, you generally wouldn't receive a perfect grade. However,

on the DAT, you can get a handful of questions wrong and still earn a fantastic—if not perfect—score. The test is geared so that only the very best test takers are able to finish every section, but even these people rarely get every question right.

What does this mean for you? Just as you shouldn't let one bad question ruin an entire section, you shouldn't let what you consider to be a subpar performance on one section ruin your performance on the entire test. Often when you think you did not do well you are mistaken. If you allow a feeling of failure to rattle you, it can have a cumulative negative effect, setting in motion a downward spiral that does serious damage to your score. Losing a few points won't ruin your cumulative score, but losing your cool will. If you feel you did poorly on a section, don't sweat it: Chances are it was just a difficult section, and that factor will already be figured into the scoring curve. The point is to remain calm and collected. Do your best on each section, and, once a section is over, forget about it and move on.

### *2. Stamina*

Improving your test-taking stamina can be just as beneficial as learning more content. Overall, the DAT is a fairly grueling experience, and some test takers simply run out of mental endurance on the last section, which happens to be one of the toughest in terms of timing and mental capacity required: Quantitative Reasoning. To avoid running out of steam, prepare by taking full-length practice tests in the weeks before your exam so that, on Test Day, completing all four sections will seem like a breeze. (Well, maybe not a breeze, but at least not a hurricane.) Taking online practice tests also ensures you are comfortable with the computer-based format and allows you to review the explanations and assess your performance. Although the scores you earn on your Kaplan practice tests will be quite realistic, the scores are far less important than the practice itself.

### *3. Confidence*

Confidence feeds on itself; unfortunately, so does the opposite of confidence: self-doubt. Confidence in your ability leads to quick, sure answers and a sense of well-being that translates into more points. If you lack confidence, you may end up reading the sentences and answer choices two, three, or four times until you confuse yourself. This leads to timing difficulties, which only perpetuate the downward spiral, causing anxiety and a rush to finish each section.

However, if you subscribe to the right DAT mindset, you'll gear all of your practice toward the major goal of taking control of the test. When you've achieved that goal, you'll be ready to face the test with supreme confidence—armed with the principles, techniques, strategies, and approaches set forth in this book—and that's the one sure way to score your best on Test Day.

### *4. The right attitude*

Those students who approach the DAT as an obstacle, rail against the necessity of taking it, or make light of its importance rarely fare as well as those who see the DAT as an opportunity to show off the reading and reasoning skills that dental schools are looking for. Don't waste time making value judgments about the DAT. It's not going away, so you have to deal with it. Those who look forward to doing battle with the DAT—or, at least, who enjoy the opportunity to distinguish themselves from the rest of the applicants—tend to score better than do those who resent or dread it.

It may sound a little dubious, but attitude adjustment is a proven test-taking technique. Just as a successful athlete prepares mentally and uses positive visualization before a big game, so too should you. Here are a few steps you can take to make sure you develop the right DAT attitude:

- Look at the DAT as a challenge but don't obsess over it; you certainly don't want to psych yourself out of the game.
- Remember that, yes, the DAT is important, but this one test will not single-handedly determine the outcome of your life (contrary to what some students think).
- Have fun with the test. Learning how to match your wits against the test makers' can be a very satisfying experience, and the reading and thinking skills you'll acquire will benefit you in dental school as well as in your future dental career.
- Remember that you're more prepared than most people. You're training with Kaplan. You will have the tools you need and know how to use them.
- Get in shape; you wouldn't run a marathon without working on your stamina well in advance of the race, and the same goes for taking the DAT.

CHAPTER TWO

# Studying Effectively

The first year of dental school is a frenzied experience for most students. To meet the requirements of a rigorous work schedule, students either learn to prioritize and budget their time or else fall hopelessly behind. It's no surprise, then, that the DAT, the test specifically designed to predict success in the first year of dental school, is a high-speed, time-intensive test. The DAT demands excellent time-management skills as well as grace under pressure, both during the test as well as while preparing for it. Having a solid plan of attack and sticking with it are key to giving you the confidence and structure you need to succeed.

## CREATING A STUDY PLAN

The best time to create a study plan is at the beginning of your DAT preparation. If you don't already use a calendar, you will want to start. You can purchase a planner from an office store, print out a free calendar from the Internet, use a built-in calendar or app for one of your smart devices, or keep track using an interactive online calendar. Pick the option that is most practical for you and that you are most likely to see and use consistently.

Once you have a calendar, write in all your professional obligations: class sessions, work shifts, meetings, etc. Then add in personal obligations: appointments, lunch dates, family time, etc. As part of your personal obligations, schedule in specific time for family and friends, working out, or other hobbies. Making an appointment in your calendar for family dinner or going to see a movie may seem strange at first, but planning social activities in advance helps your loved ones cope with your busy schedule (soon to become even busier once you start dental school!) and helps you balance your personal and professional obligations. When life gets busy, social appointments are often the first to be sacrificed, but this can lead to strained relationships and both physical and mental exhaustion. Having a happy balance allows you to be more focused and productive when it comes time to study, so stay well-rounded and don't neglect anything important to you.

Once you have established your calendar's framework, add in study blocks around your obligations, keeping your study schedule as consistent as possible across days and across weeks. Studying at the same time of day as your official test is ideal for promoting the best recall, but if that's not possible, then fit in study blocks whenever you can.

Next, add in your full-length practice tests. Take one test earlier in your preparation, but save any remaining tests until you've reviewed all the content and are beginning to feel confident about the DAT. Staggering your tests in this way allows you to form a baseline for comparison and to determine which areas to focus on right away, while also providing realistic feedback as to how you will perform on Test Day. For each test scheduled, set aside five hours to take the test and then another five hours the next day to thoroughly review the test (discussed more later in this chapter).

When planning your calendar, aim to finish your full-length practice tests and the majority of your studying by one week before Test Day, which will allow you to spend that final week completing a final, brief review of what you already know.

## Study Blocks

To make studying as efficient as possible, block out short, frequent periods of study time throughout the week. From a learning perspective, studying one hour per day for six days per week is much more valuable than studying for six hours all at once one day per week. Spacing out your preparation allows your brain time to consolidate its new memories, and seeing the material repeatedly over a longer period of time makes recalling the information on Test Day easier and faster. Specifically, Kaplan recommends studying for no longer than three hours in one sitting. In fact, three hours is an ideal length of time to study: It's long enough to build up your stamina for the five-hour Test Day but not so long that you become overwhelmed with too much information.

Within those three-hour blocks, also plan to take 10-minute breaks every hour. Use these breaks to get up from your seat, do some quick stretches, get a snack and a drink, and clear your mind. Although 10 minutes of break for every 50 minutes of studying may sound like a lot, these breaks will allow you to deal with distractions and rest your brain so that, during the 50-minute study blocks, you can remain completely focused. Taking breaks more often than this, however, can be detrimental; research shows that becoming fully engaged in a mentally-taxing activity generally takes 10 minutes, so if you stop to check your email or social media, talk with your roommates, or grab yet another snack every ten minutes while studying, you will never be completely engaged and will not be using your time effectively.

If you would like to study for more than three hours in one day, space out your studying with a significant break in the middle. For example, you may study for three hours in the morning, take a two-hour break to have lunch with your friends, then study for another two hours in the afternoon.

If you are unable to study for a full three hours in one sitting, shorter amounts of time can work as well, but you'll get the most benefit from your studying if you immerse yourself in the material uninterrupted for at least one hour. For brief practice when you only have a few minutes, use the Study Sheets located at the back of this book. These sheets contain the most important information to memorize before Test Day, so take them with you wherever you go or put them somewhere you'll see them frequently. These can be a great way to fit in extra studying when you wouldn't be doing anything productive otherwise, such as when waiting for the bus to arrive or for a class or meeting to start or even while brushing your teeth (you can hang them up on your bathroom mirror!). Even five or ten minutes per day quickly adds up to hours of additional studying over the course of a few weeks.

The total amount of time you spend studying each week will depend on your schedule and your test date, but it is recommended that you spend 200–250 hours before taking the official DAT. One way you could break this down is to study for three hours per day, five days per week, for three months. But this is just one way. You might study six days per week (though avoid studying every day!) or

for more than three hours per day. You might study over a longer period of time if you don't have as much time to study each week. Or you might find that you need more or fewer hours based on your personal performance and goal scores.

One way you could use this book is to complete at least one chapter per day. Note that the length of each chapter varies considerably, so only use this as a rough guideline, remembering each week to spend additional time practicing, memorizing vocabulary, and reviewing material previously covered. Furthermore, for best studying, don't just review all of the chapters in order; instead, start thinking about all of the sections of the test right away and reinforce long-term learning by staggering the material.

No matter what your plan is, ensure you complete enough practice to feel completely comfortable with the DAT and its content. A good sign you're ready for Test Day is when you begin to earn your goal score consistently in practice.

### Time Off

Taking some time off can be just as important as studying. Just as you should take breaks during study blocks, take breaks during the week as well. Kaplan recommends taking at least one full day off per week, ideally from all of your professional obligations but at minimum from studying for the DAT. Taking this time allows you to recharge mentally, and any fun or relaxing activities you plan for those days give you something to look forward to during the rest of the week.

## HOW TO STUDY

The DAT covers a large amount of material, so studying for Test Day can initially seem daunting. To put studying more into your control, break the content down into specific goals for each day and each week instead of attempting to approach the test as a whole. A goal of "I want to increase my cumulative score by five points" is too big, abstract, and difficult to measure on the small scale. More reasonable goals are "I will read one chapter each day this week" or "I will be able to recite all the digestive enzymes by Friday." Goals like these are much less overwhelming and help break studying into manageable pieces. As you achieve these smaller goals, you may be surprised to see how quickly you begin achieving your bigger goals, too.

Once you've established your next short-term goals, you will want to achieve them as efficiently and effectively as possible, which means making the most of your study time. Always take notes when reading and practicing. Don't just passively read this book. Instead, read actively: Use the free margin spaces to jot down important ideas, draw diagrams, and make charts as you read. Active participation increases your retention and makes rereading your notes at a later date a great way to refresh your memory.

As you go through your Kaplan program, much of the information may be familiar to you. After all, you have probably seen most of the content before. However, be very careful: Familiarity with a subject does not necessarily translate to knowledge or mastery of that subject. Do not assume that if you recognize a concept you actually know it and can apply it quickly at an appropriate level. Frequently stop and ask yourself questions while you read (e.g., *What is the main point? How does this fit into the overall scheme of things? Could I thoroughly explain this to someone else?*). By making connections and focusing on the grander scheme, not only will you ensure you know the essential content, but you will also prepare yourself for the level of critical thinking required by the DAT.

If you are limited by only having a minimal amount of time to prepare before Test Day, focus on your biggest areas of opportunity first. You likely won't have time to take detailed notes for every page of this book; instead, use your results from practice questions and tests to determine which areas are your biggest opportunities and seek those out. Skim over content matter for which you are already demonstrating proficiency, pausing to read more thoroughly when something looks unfamiliar or particularly difficult. If you are already feeling confident with the topic of a specific chapter, consider starting with the Review Problems at the end of the chapter. If you can get all of those questions correct within a reasonable amount of time, you may be able to quickly skim through that chapter, but if the questions prove to be more difficult, then you may need to spend time reading the chapter or certain subsections of that chapter more thoroughly, taking notes.

Leave time to review your practice questions and your notes from previous chapters, too. You lead a busy life in addition to preparing for the DAT, and fitting in so much study time can often feel difficult. You may be tempted to push ahead and cover new material as quickly as possible, but failing to schedule ample time for review will actually throw away your greatest opportunity to improve your performance. The brain rarely remembers anything it sees or does only once. When you build a connection in the brain and then don't follow up on it, that knowledge may still be in your memory somewhere but not in the accessible way you need it to be on Test Day. When you carefully review notes you've taken or problems you've solved (and the explanations for them), the process of retrieving that information reopens and reinforces the connections you've built in your brain. This builds long-term retention and repeatable skill sets—exactly what you need to beat the DAT!

While reviewing, take notes about the specific reasons why you missed questions you got wrong or had to guess on, perhaps by using a spreadsheet like the one below in Table 2.1. Keep adding to the same Why I Missed It Sheet (WIMIS) as you complete more practice, and periodically review your WIMIS to identify any patterns you see, such as consistently missing questions in certain content areas or falling for the same test-maker traps.

| Section | Q # | Topic or type | Wrong answer chosen | Why I missed it |
|---|---|---|---|---|
| *Chemistry* | *42* | *Nuclear Chem.* | *Opposite* | *Didn't read "not" in question stem* |
| *Chemistry* | *47* | *$K_{eq}$* | *Miscalculation* | *Need to memorize Kaplan steps* |
| *Reading Comp.* | *2* | *Detail* | *Opposite* | *Didn't read "not" in answer choice; slow down!* |
| *Reading Comp.* | *4* | *Inference* | *Out of Scope* | *Forgot to make a prediction* |

**Table 2.1**

As you move through your DAT program, adjust your study plan based on your available study time and the results of your practice questions. Your strengths and weaknesses are likely to change over the course of this program. Keep addressing the areas that are most important to your score, shifting your focus as those areas change.

## Where to Study

One often-overlooked aspect of studying is the environment where the learning actually occurs. Although studying at home is many students' first choice, several problems can arise in this environment, chief of which are distractions. At home, many people have easy access to family, roommates, books, television, movies, food, the Internet, chores yet to be completed—the list goes on. Studying can be a mentally draining process, so as time passes these distractions become ever more tempting as escape routes. As discussed earlier, the moment you lose focus due to one of these distractions, you also lose the time it takes to return to the level of concentration you just had (not to mention any time clearly spent not studying!).

Although you may have considerable willpower, there's no reason to make staying focused harder than it needs to be. Instead of studying at home, head to a library, quiet coffee shop, or similar location whenever possible. This will eliminate many of the usual distractions and also promote efficient studying; instead of studying off and on at home over the course of an entire day, you can stay at the library for three hours of effective studying and enjoy the rest of the day off from the DAT.

If you must study at home, consider ways to prevent distractions. Give copies of your schedule to family and friends and ask them not to interrupt your study blocks. Complete all the essential tasks you can before studying so they do not become distractions. If the Internet is a distraction for you, consider temporarily disabling your social media accounts or downloading an extension for your Internet browser that blocks certain websites while you are studying. Rather than fighting distractions with willpower alone, remove as many distractions as possible in advance to avoid the problem entirely.

An additional advantage of studying at libraries, however, is that their environments tend to be akin to those of the Prometric testing centers. Similar to a library, your testing center will be quiet but not completely silent. Not everyone at the test center will be taking the DAT, and not everyone will start at exactly the same time. While you are in the middle of a multiple choice section, other test takers may be entering the testing room to start their tests, taking breaks, typing essays, or talking with their proctors. Practicing in this type of environment (as opposed to in complete silence or while listening to music at home) means you will be less distracted in the actual testing center on Test Day.

Finally, no matter where you study, make your practice as much like Test Day as possible. Just as required during the official test, don't have snacks or chew gum during your intense, 50-minute study blocks. Turn off your music, television, and phone. Practice on the computer to simulate the computer-based test environment. When completing practice questions, do your work on scratch paper or noteboard sheets rather than writing directly on any printed materials since you won't have that option on Test Day. Study at the same time of day as your official test, especially on the same day of the week, to get in the habit of thinking about the test at those times. Because memory is tied to all of your senses, the more test-like you can make your studying environment, the easier it will be on Test Day to recall the information you're putting in so much work to learn.

In the end, you want to personalize your studying to be as effective as possible for you individually, follow a strict calendar that contains your study blocks and breaks, and make the most of those study blocks by focusing on your opportunity areas while simulating the testing environment. In this way, you'll learn more and at a faster rate than you could otherwise. Sticking with your efficient plan leads to effectively learning the material you need to ace the DAT—this way, you can do well the first time and not need to study for the test again. Being committed now will definitely pay off in the end.

CHAPTER THREE

# Test Strategies

Even someone with perfect knowledge of all the science and math on the DAT is unlikely to achieve a perfect score without adequate test strategies. Understanding the test question formats and having a clear plan for how to tackle each question while finishing every section on time can be just as important as content knowledge. In fact, using Kaplan's strategies allows you to use the test structure in your favor and determine correct answers even without knowledge of all the content. Specific strategies for each test section will be covered in the corresponding sections of this book, but this chapter will serve as an introduction to several overarching principles to apply throughout the DAT.

## KAPLAN QUESTION STRATEGY

The DAT has only one question type: multiple choice. You won't find any fill-in-the-blank, matching, short response, or true/false problems on the test. Instead, every question will provide you with the option to select one of five (or rarely four) answer choices. Every time. This means two important things. First, you won't need to prepare your knowledge in such a way that you can recite formulas, facts, or statistics from rote memory. Instead, all you'll need to do is recognize and apply those ideas using the choices provided. This means your focus when studying and answering questions should be on recognizing relationships and patterns more than on memorizing lists. Second, the fact that every question is multiple choice means you can identify patterns among the questions and answer choices to help you choose the correct answer even when you're not completely confident regarding the content. Upcoming chapters in this book outline specific strategies for how to use question types and answer choices to your advantage in different subject areas of the test.

All the specific strategies for each section start with one key process: Stop-Think-Predict-Match. Although you will make slight modifications to this strategy depending on which question type you are tackling, the core ideas remain the same: Carefully analyze each question and determine what the correct answer will look like *before* reading the corresponding answer choices. This will allow you to use the question format to your advantage. You will quickly bypass wrong answer choices without needing to analyze them fully or falling for the test makers' trap choices, and you will also leave yourself open to using alternative strategies, such as the process of elimination, when necessary. Each step of Stop-Think-Predict-Match is outlined in more detail below.

## Stop

Your very first step when attempting any question is to Stop: Don't fully read the question or answer choices but instead **triage**, analyzing the question's subject matter, length, and difficulty to determine if you should tackle it immediately, later, or not at all. For most questions, you will also use this opportunity to characterize the answer choices (e.g., as vocabulary terms, sentences, equations, numbers with units, graphs, etc.).

As discussed later in this chapter, the Stop step allows you to make the most of the limited amount of time you have available. Determining each question's general characteristics before tackling it also allows you to get in the right mindset for that question. If you know you will need to calculate a specific value, you may list the variables you see on your noteboard as you read the question stem; if you know the answer will instead be a graph, you may sketch a quick plot of the variables instead of listing them.

## Think

Once you've characterized the question stem and answer choices and decided to tackle a problem, the next step is to actually read the question stem—but still don't read the answer choices yet. While reading the question, don't just read passively; instead, paraphrase as you read so you can determine what the question is really asking. You won't be able to answer the question correctly if you misunderstand what the question is asking you to do, so don't minimize the importance of this step. This step ensures that you do not rush through the question, potentially leading to additional work that is not needed. Establish what the correct answer will look like as specifically as possible (e.g., velocity on the *x*-axis in meters per second) while being careful to note any negative words, such as *not*, *except*, or *false*.

## Predict

Once you have a clear idea of what the question is asking and have all the information you need to answer it, your next step is to formulate a framework of what the correct answer will look like. At this point, you still should not have read the answer choices, so you are essentially treating the problem as a fill-in-the-blank question. A great prediction will answer the question as thoroughly as possible; however, if you're not certain what to expect from wordy answer choices or don't have strong content knowledge for the subject being tested, a simpler prediction could be nearly as useful and is always better than no prediction at all.

Although the Stop-Think-Predict-Match strategy may sound like a radical change to the way you approach a multiple-choice test, chances are it's not entirely different from what you normally do. The major difference is likely the order: Most test takers who are not Kaplan students read the answer choices first and then determine what the correct answer will be. However, the advantages of predicting before reviewing the answer choices are many. First, making a prediction saves you time. Instead of analyzing all four answer choices, you can quickly skip the wrong choices that don't match your prediction without needing to disprove them specifically. Second, having a clear idea of what the correct answer will look like helps you avoid wrong answer choices that might otherwise be tempting. For example, although choice A of a hypothetical Reading Comprehension question might have sounded reasonable had you read it first, after making a prediction you instead realize it doesn't answer the question and in fact wasn't mentioned in the passage at all. In this way, you avoid the trap of "that sounds good" and home in on the correct answer right away instead. Finally, you

will feel much more confident with your answer if you predict it and then find it among the choices. As discussed in Chapter 1, confidence builds upon itself, so this aspect of the Predict step is great for Test Day.

### Match

After preparing a prediction, your last step is to select the answer choice that truly meets the requirements of your prediction. When matching, your goal is not to judge each answer choice based on its own merits but rather to identify if a choice corresponds with the framework you predicted. To that end, answer choices will fall into one of three categories:

- *The choice matches your prediction:* In this case, read the entire choice thoroughly to ensure all components of the choice are correct, paraphrasing as needed. If the choice looks completely correct, select it and move on to the next question.
- *The choice is clearly the opposite of your prediction or otherwise incorrect:* If at any point you realize a choice is definitely incorrect, stop reading that choice and mark it as eliminated on your noteboard (see noteboard strategies later in this chapter). If one component of a choice is incorrect, the entire choice must be incorrect, so there's no need to read the entire option.
- *The choice does not match your prediction:* When an answer choice is not obviously wrong but also doesn't align with what you were anticipating, skip that choice. Don't spend time at this point attempting to definitively prove the choice is incorrect; one of the other answer choices is likely to match your prediction instead, meaning you won't ever need to determine why this option is incorrect.

  Note that just because a choice doesn't match your prediction doesn't mean you should eliminate it right away. In some cases, you may find that no answer choice matches your original prediction. When this happens, you will need to return to the Think and Predict steps, incorporating more information to modify your prediction by making it more general or more specific as needed. Using this modified prediction, you can then complete the Match step again on the choices you did not already eliminate.

As you first start using the Stop-Think-Predict-Match strategy, you may find yourself moving through questions more slowly, especially when you need to modify your predictions, but don't give up! With practice, you will begin to perform these steps automatically and find both your speed and accuracy increased. Because mastery of all the DAT strategies does require practice, use them consistently throughout your practice tests and questions so you can use them effectively by Test Day.

## TEST TIMING

For complete Test Day success, you must answer as many questions correctly as possible in the time allotted. Knowing the content and question strategies is important, but not enough; you also must hone your time-management skills so you have the opportunity to use those strategies on as many questions as possible. It's one thing to answer a Reading Comprehension question correctly; it's quite another to answer all of the questions in the section in the limited time allotted. The same applies for the other sections; it's a completely different experience to move from handling an individual passage or problem at leisure to handling a full section under timed conditions. Time is a factor that affects every test taker, and the good news is that you can easily improve your scores by adhering to the following basic principles.

## The Four Basic Principles of Test Timing

On some tests, if a question seems particularly difficult, you can spend significantly more time on it because you are given more points for correctly answering hard questions. This is not true on the DAT. Every DAT question, no matter how difficult, is worth a single point. There's no partial credit. Because there are so many questions to do in so little time, you can seriously hurt your score by spending five minutes earning one point for a hard question and then not having time to get several quick points from easier questions later in the section.

Given this combination—limited time and all questions equal in weight—you must manage the test sections to ensure you earn as many points possible as quickly and easily as you can.

### *1. Feel free to skip around*

One of the most valuable strategies to help you finish sections in time is recognizing and dealing with the questions and passages that are easier and more familiar to you first. That means temporarily skipping those that promise to be more difficult and time-consuming. You can always come back to these at the end, and, if you run out of time, you're much better off having spent time on the questions that will definitely earn you points rather than those you might have gotten incorrect anyway. Because there's no guessing penalty, always fill in an answer to every question on the test whether you have time to fully attempt it or not.

This strategy is difficult for most test takers; we're conditioned to do things in order, but it just doesn't pay off on the DAT. Don't let your ego sabotage your score by wasting time on questions you can't do. Sometimes it isn't easy to give up on a tough, time-consuming question, but often it's better simply to move on. The computer won't be impressed if you get the toughest question right. If you dig in your heels on a tough question, refusing to move on until you've cracked it, you're letting your ego get in the way of your test score. A test section is too short to waste on lost causes. There's no point of honor at stake here, but there are DAT points at stake.

Give skipping around a try when you practice. Remember, if you do the test in the exact order given, you're letting the test makers control you. Be mindful of the clock, and don't get bogged down with the tough questions. On the computer-based test, you can skip around within a section but not among sections.

### *2. Seek out questions you can answer correctly*

Being able to identify which questions will be most difficult for you personally is essential to making decisions about which ones to skip. Unlike items on some other standardized tests, questions and passages on the DAT are not presented in order of difficulty. There's no rule that says you have to work through the questions within a section in any particular order; in fact, the test makers scatter the easy and difficult questions throughout the section, in effect rewarding those who actually get to the end. Don't lose sight of what you're being tested for along with your reading and thinking skills: efficiency and cleverness. If general chemistry questions are your area of expertise, head straight for them when you first begin the Survey of Natural Sciences section and save the organic chemistry and biology questions until the end of that section.

Ideally, you'll be able to determine if a question is easier or more difficult and time-consuming within the first five seconds. If you only realize a question is difficult after spending two minutes working on it, you've already lost time there and forfeited much of the advantage of skipping around.

When evaluating the difficulty of a question, consider factors such as length of question stem and answer choices, type of question, type of answer choices provided (e.g., numbers, expressions, terms, or sentences), vocabulary used, content area being tested, etc. Also consider how long a question will take you; even if you know exactly how to perform a calculation, if it involves multiple steps and will take you several minutes, you may want to skip that question initially. If you do decide you can't do a question or realize you won't get to it, guess! Fill in an answer—any answer—for every question. There's no penalty if you're wrong, but you score a point if you're right. Note that no answer choice is more frequently correct on the DAT than any other, so avoid looking for big-picture patterns and instead make educated guesses based on logic and elimination.

### *3. Use the process of elimination judiciously*

There are two ways to get all the answers right on the DAT: You either know all the right answers, or you know all the wrong answers. Because four are four times as many wrong answers, you should be able to eliminate some, if not all, of them. Therefore, if you don't know the right answer, eliminate as many wrong answers as you can. By doing so, you either get to the correct response or increase your chances of guessing the correct response. You start out with a 20 percent chance of picking the right answer, and with each eliminated answer your odds go up. Eliminate one choice, and you have a 25 percent chance of picking the right answer; eliminate two choices, and you have a 33 percent chance; and so on. Remember to look for wrong-answer traps when eliminating. Some answers are designed to seduce you by distorting the correct answer and therefore can be quickly eliminated. For more information about common wrong answer pathologies, see Chapter 53, Question Types.

However, note that using the process of elimination can be slow. If you attempt to use the process of elimination on every question, you undoubtedly will run out of time before getting to all the questions. Evaluating five choices is much more time-consuming than directly homing in on the correct answer and picking it without worrying about why all the wrong choices are incorrect. The process of elimination can be a powerful tool, but save it as a backup for when tackling the question directly with Stop-Think-Predict-Match has not yielded the correct answer.

### *4. Keep track of time*

While working on a section, maintain a general sense of your timing without constantly looking at the clock. For most multiple choice sections, you must average from 55 to 65 seconds per question in order to finish in time (the exception is Perceptual Ability, during which you have closer to 40 seconds per question!). These are averages, though; you will be able to answer some basic questions in 15 seconds, whereas other questions, such as those that involve lengthy calculations, may take over 60 seconds. Especially because of such discrepancies, constantly looking at the countdown timer after every question can be unnecessarily stressful and potentially misleading; you may have just tackled a particularly difficult question for which taking more time was perfectly acceptable, so trying to stick too closely to the average for every question can be counterproductive. Nevertheless, to ensure you finish each section, you still shouldn't spend a wildly disproportionate amount of time on any one question or group of questions.

A good strategy, therefore, is to look at the clock every 5 or 10 minutes with a specific goal, such as "I should have finished 30 questions when the countdown timer shows 11 minutes left in the Quantitative Reasoning section" (meaning 34 minutes have elapsed). Having specific guidelines in mind helps avoid spending time calculating how much time is left out of the total, which can use up valuable testing time.

When planning out your time, leave at least 30 seconds at the end of each section to review any questions you intended to come back to later and make quick educated guesses for questions you left blank (if any). The last thing you want to happen is for time to elapse for a particular section before you've gotten to half the questions. Therefore, it's essential that you pace yourself, keeping in mind the general guidelines for how long to spend on any individual question or passage. With practice, you will develop an innate sense of how long you have to complete each question so you know when you're exceeding the limit and should start to move faster.

## Section-Specific Pacing

Let's now look at the section-specific timing requirements and some tips for meeting them. As described previously, keep in mind that the times per question or passage are only averages; some questions are bound to take less time, whereas others will take more. Try to stay balanced. Every question is of equal worth, so don't get hung up on any one. Think about it: If a question is so hard that it takes you a long time to answer it, chances are you may get it wrong anyway. In that case, you'd have nothing to show for your extra time but a lower score.

### *Reading Comprehension*

Allow yourself approximately 20 minutes per passage set, which includes reading a passage and answering the associated questions. On average, give yourself 7–8 minutes to read a passage and 10–12 minutes to answer the corresponding questions. Some longer passages may take more time to read, but limit yourself to eight minutes as a maximum so you have time to answer the questions, which are what actually contribute to your overall score.

Do the easiest passages first. This may mean avoiding topics that are extremely unfamiliar or passages that seem to include a lot of challenging vocabulary. For passage-based questions, choose an answer based only on the information given. Be careful not to overthink the question by inserting too much of your own logic. Passages might generate their own data. Your answer choices must be consistent with the information in the passage, even if that means an answer choice is inconsistent with the science of ideal, theoretical situations.

### *The Survey of Natural Sciences*

You have about 55 seconds for each Biology, General Chemistry, or Organic Chemistry question in the Survey of Natural Sciences. However, Biology and Organic Chemistry questions typically take less time than complex General Chemistry calculations, so it's important to keep track of your overall progress. A good goal is to spend 30 seconds per Biology question, up to 75 seconds per General Chemistry question, and then 60 seconds per Organic Chemistry question. Completing the mostly fact-based Biology questions quickly will allow you to have plenty of time for the more time-consuming chemistry questions and set yourself up for success in the section as a whole.

### *Perceptual Ability and Quantitative Reasoning*

Perceptual Ability averages 40 seconds per question, but different question types use far less or far more time. You have about 67 seconds for each Quantitative Reasoning question, but again, some will take more time and others less.

## NOTEBOARD STRATEGIES

Other resources to maximize on Test Day are your noteboards and markers. Using the noteboards when you need them, but not so much that you waste your limited time, is important. One efficient strategy is to make an elimination table, like the one at the top of Figure 3.1. Rather than rewriting the letters A, B, C, D, and E for each question, write them only once and use a table to keep track of which choices you have eliminated. This has the added benefit of clearly retaining which choices you have eliminated for any given question, which is helpful for those questions you plan to return to later. As discussed previously, don't use elimination for every question since it can be time-consuming even with this shortcut.

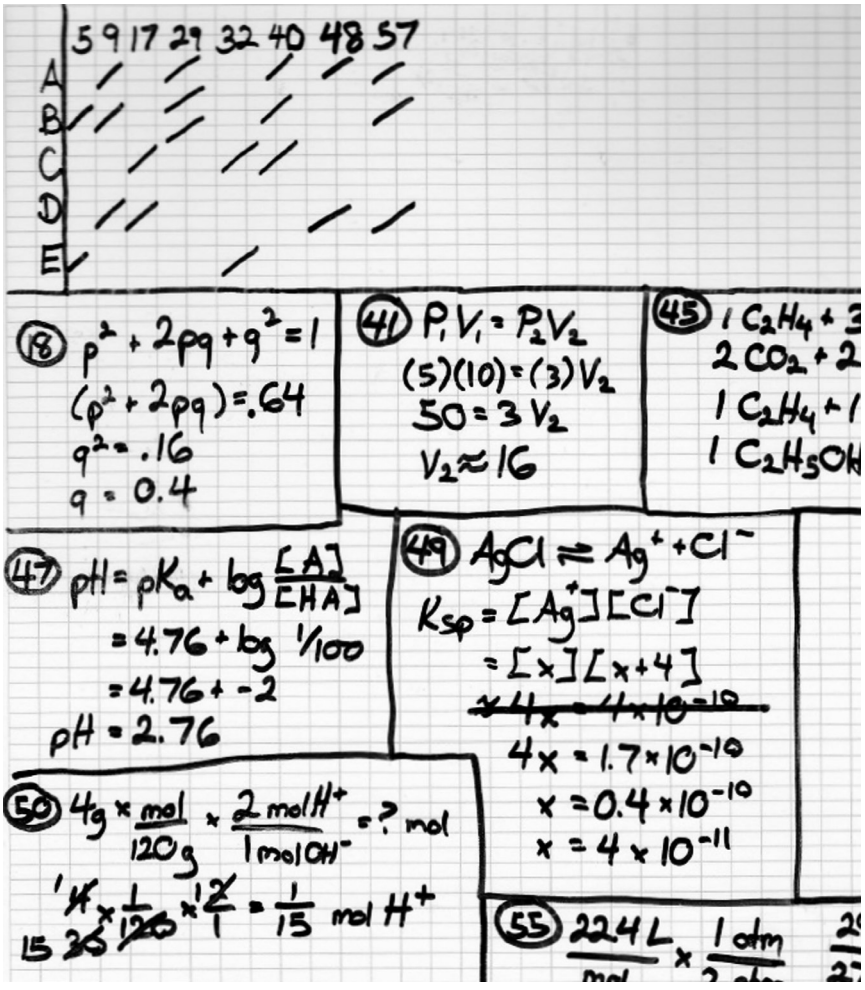



**Figure 3.1**

Write clearly on your noteboard. Conserve space by keeping all your work for a given problem in the same area. Number each question and box off its notes when you are finished so you can come back to it later, if needed, and so you do not confuse your work for one question with the work for another. When you finish a section, ask your proctor for a new noteboard (and a new marker if you sense yours is beginning to run out of ink).

## KAPLAN'S TOP TEN DAT STRATEGIES

1. **Relax!**

   Just by reading the first few chapters of this book you are already ahead of your competition. By the time Test Day arrives, you will have mastered the Kaplan strategies and DAT content needed to conquer the exam. Have fun with the process; you're almost in dental school already!

2. **Know what the DAT tests.**

   Never forget the purpose of the DAT: to test your powers of analytical reasoning. You need to know the content because each section has its own particular language, but the underlying DAT intention is consistent throughout the test.

3. **Develop the DAT mindset.**

   The DAT is designed to let you show off everything you've learned so far. Don't let your spirit fall, or your attitude will slow you down. Don't let yourself worry about a question or section once you've finished it; instead, change your mindset and tackle the next item as if you're just starting the day.

4. **Build your stamina.**

   Prepare your mind for Test Day by completing practice tests and studying for three-hour blocks while remembering to take breaks every hour and one day off per week.

5. **Master the art of predicting.**

   Kaplan's Stop-Think-Predict-Match strategy allows you to break up each question into manageable steps. Carefully determine what a question is really asking, then anticipate answers before you read the answer choices. This helps protect you from persuasive, tricky, and time-consuming incorrect choices.

6. **Skip around within each section by seeking out questions you can answer correctly.**

   Attack each section confidently. You're in charge. Since every question is worth one point each, work your best areas first to maximize your opportunity for DAT points. Don't be a passive victim of the test structure, and don't let any one question drag you down!

7. **Use the process of elimination judiciously.**

   Most wrong answer choices are logical twists on the correct choice. Quickly move past any obvious traps to more easily match your prediction, but only use the full process of elimination when you cannot find a match.

8. **Keep track of time.**

   Pace yourself to avoid spending too much time on any individual question. Don't let the clock add stress to Test Day; it's just another tool designed to help you.

9. **Make the most of your noteboard.**

   Keep track of all the notes you need on your noteboard by being neat and methodical. You aren't given many resources to use on Test Day, so take full advantage of those provided.

10. **Have the right attitude.**

    Your attitude toward the test really does affect your performance. You don't necessarily have to think nice thoughts about the DAT, but work to develop confidence and a positive mental stance toward the test. You can do this!

Section V

# READING COMPREHENSION

## CHAPTER FIFTY-TWO

# Reading Critically

To do well on Reading Comprehension on Test Day, you need to read critically and understand why the author presents certain information. Preparing for this section, therefore, is an interesting task. You won't see any lengthy calculations, and you don't need to memorize complex science concepts. Instead, the best ways to study involve learning strategies, applying them to the reading you do from now until Test Day, and completing practice passages.

## THE READING COMPREHENSION PASSAGE

The Reading Comprehension portion of the exam contains three passages consisting of approximately 14 paragraphs each. Each passage will pertain to a scientific topic. The intent of the author may be to inform, persuade, or speculate, but usually the author's tone remains roughly neutral due to the nature of the content. Subtle clues may indicate an author is for or against certain ideas, but these opinions will rarely be extreme.

Outside knowledge of each field is not required to answer questions correctly in this section, and the passages are meant to cover material you do not already know. Nevertheless, rough familiarity with the general vocabulary and writing style used in each field can build your confidence and speed you up on Test Day. Reading through recent editions of journals, such as the *Journal of the American Dental Association* and *Science*, and magazines, such as *National Geographic* and *Scientific American,* will increase your familiarity with this type of material.

Each of the three passages will be accompanied by 16–17 questions for a total of 50 questions per section. Because you will have 60 minutes total to complete this section, allot 20 minutes per passage: up to 8 minutes for reading the passage and at least 12 minutes for answering the questions. This will give you approximately 40–45 seconds per question. Neither every passage nor every question should take the same amount of time due to varying difficulty and length, so use these numbers as guidelines rather than hard rules.

## DAT READING

Reading Comprehension questions are *always* about the corresponding passage. You are not necessarily looking for the answer choices that are the most factual but rather those that correspond best with the author and the passage. If you do have prior knowledge in a field, you must be careful not to apply that to the questions and instead only answer based on the information in the passage. Therefore, before you can tackle a Reading Comprehension question, you must read at least some of the corresponding passage.

There are four things you really need to know about Reading Comprehension:

First, you're not reading to learn anything. This is not information you need to carry with you for years, months, weeks, or even hours. You just need to use it in the next few minutes, and you will even be able to refer back to the passage when you need it.

Second, you're not reading to remember anything. If you try to remember what you read, you'll rely on memory—which is notoriously faulty—and your mind will be taken up with what you're trying to remember. That's not helpful. Your mind needs to be open and focused on the really important parts of the DAT: the questions. Anything you think is important enough to remember will go on your map, which is discussed later in this chapter.

Third, you don't need any outside knowledge or your own leaps of logic to read the passage well. All the correct answers are supported in the passage. As stated previously, if you use what you already know, you'll be tempted to answer questions based on your own knowledge and not on the passage. That's a classic way to choose wrong answers.

And fourth, you're not reading to understand everything. After all, if there's no question on the part you didn't understand, it doesn't matter anyway. So you're not going to read and reread; you're just going to keep moving ahead and let the questions determine what you need to reread.

Considering all these points together shows that reading on the DAT is quite different from reading almost anything else. Therefore, how you approach the passages in the Reading Comprehension section should be different from how you read anything else. Don't fall into the easy trap of approaching the passages as you would a novel or even a textbook; instead, read critically to set yourself up for success when you get to the questions. After all, answering those questions correctly is your primary goal on Test Day, so everything you do should directly serve that goal, including how you read.

### Reading Critically

Ordinarily, people read for one or both of two reasons: to learn something or to pass the time pleasantly. Neither of these reasons has anything to do with the DAT. So what do you really need to get from reading a DAT passage that's different from everyday reading? Broadly stated, there are two primary goals in reading a passage: reading for purpose—the *why* of the text and *what* the author wants you to learn from the passage—and reading for structure—the *how* of the text and the way in which the author presents the ideas. Every Reading Comprehension question type fundamentally hinges on your ability to step back from the text and analyze *what* the author is stating, *why* the author is writing in the first place, and *how* the author puts the text together.

Notice the theme here: it's all about the author. You'll get questions about the author's ideas, her purpose, what can be inferred from what she writes in the passage, and how she puts it all together. If you understand little more than the author's intent, you'll still have enough to get started with the questions, so your focus as you read must always be on the author. Therefore, pay attention not only to what details are present and where they are but also why they are there. Details are the *what* of a passage, and they never exist in a vacuum; they always support an idea.

Since the majority of the Reading Comprehension question types requires only these big-picture ideas, don't get caught up in the details themselves as you read. Instead, skim over details quickly, then reread them more closely only when a question demands it. In fact, if you follow this strategy, you won't ever need to read or understand most of the details in a passage. If you spent a significant portion of your time poring over the passage to learn and memorize all the information contained within it, you would have wasted the majority of your time. Rather than spend your time on a task not directly earning you points, quickly read through the passage for main ideas and only return to specific details when necessary.

Nevertheless, although reading all the content carefully is a waste of time, don't take that too far. There's no payoff in getting through a passage with zero comprehension. Instead, know what is important in a passage and what is not. The author's ideas are important; the details can always be researched if there are questions regarding them (all it takes to find a detail in that case is for you to shift your eyes over to view the passage, which will always be on the screen next to each of its questions). Remember that the DAT is a timed test; use your time wisely and focus on the author when reading the first time through, saving the details for a second, targeted look if a question demands it.

## Using Keywords

To help you read quickly without missing important information, pay special attention to keywords, the specific words or phrases that provide structure to text. By training your eye to notice these essential words, you will be able to skim through much of each passage, slowing down to read more thoroughly only when you know an important idea is coming next. As you review the following types of keywords, add your own words to watch out for on Test Day.

**Continuation** keywords announce that more of the same is about to come up. Some of the most common Continuation words and phrases include:

| | | | |
|---|---|---|---|
| *also* | *furthermore* | *in addition* | *as well as* |
| *moreover* | *plus* | *at the same time* | *equally* |

Also (there's a keyword for you), the colon often does the same job: It tells you that what follows expands upon what came before, as do commas, semicolons, and dashes. When you see a Continuation keyword of any type, you can generally keep skimming if you understood what came before it since no new ideas are likely to follow.

**Sequence** keywords tell you there's an order to the author's ideas. Some examples are:

| | |
|---|---|
| *second (and third, fourth, etc.)* | *next* |
| *finally* | *recently* |

Similar to Continuation keywords, Sequence keywords show you more of the same is coming, so keep skimming.

**Illustration** keywords signal that an example is about to arrive. *For example* and *for instance* are very common. But think about these:

| | |
|---|---|
| *in the words of* Hannah Arendt | *according to* these experts |
| *as* Maya Angelou *says* | *for* historians |
| *to* Proust | Toynbee *claims* that |

In each case, what's about to follow is an example of that person's thinking. Illustration keywords also indicate you can keep skimming, but you may want to take note of any vocabulary terms or other important words that follow so you know where to return should you be required to answer a question about that detail.

**Evidence** keywords tell you that the author is about to provide support for a point. Here are the four most common evidence keywords:

| | | | |
|---|---|---|---|
| *because* | *for* | *since* | *the reason is* |

Although evidence keywords do show you the same point is continued, they also indicate that the author's underlying logic is coming next. If you don't have a strong grasp of the *why* behind an argument yet, you may need to pay more attention here. Otherwise, keep moving.

**Contrast** keywords signal an opposition or shift. There are lots of these words:

| | | | |
|---|---|---|---|
| *but* | *however* | *although* | *not* |
| *nevertheless* | *despite* | *alternatively* | *unless* |
| *though* | *by contrast* | *yet* | *still* |
| *otherwise* | *while* | *notwithstanding* | |

Contrast keywords are among the most significant in Reading Comprehension because so many passages are based on contrast or opposition. Almost certainly, something important is happening when a Contrast keyword shows up, so slow down here to ensure you follow where the argument is going next. If you are an advanced reader, you may be able to anticipate what's coming next, saving you the time of slowing down, but verify that you anticipated correctly before continuing.

**Emphasis** keywords may be the most welcome. Since you are reading for the author's point of view, there are no better sections to pay attention to than those where the author announces that he finds something to be important. Note these well:

| | | | |
|---|---|---|---|
| *above all* | *most of all* | *primarily* | *in large measure* |
| *essentially* | *especially* | *particularly* | *indeed* |

These words serve as great hints that the information will show up on a question, so definitely read what follows.

**Conclusion** keywords signal the author is about to sum up or announce the thesis. The most common is *therefore*, together with the following:

| | | | |
|---|---|---|---|
| *thus* | *consequently* | *hence* | *in conclusion* |
| *it can be seen* | *so* | *we conclude* | *in summary* |

Because these keywords have to do with the author's logic, they are especially crucial for Reading Comprehension, especially when determining the overall purpose of the passage. Slow down and read these.

## THE PASSAGE MAP

To make the most of your limited reading time, take quick notes on your noteboard as you finish reading each paragraph. These notes will make up your roadmap, a literal map of the passage that shows you where to look when you need to go back and find a specific detail. Forming a roadmap also helps guide your thought processes during your first pass. You can feel confident reading quickly and focusing on the big picture ideas while ignoring most of the details because you will know exactly where to look should the need for one of those details arise.

Every passage map has four major components:

**Topic:** the author's basic, broad subject matter, such as *antibiotics* or *volcanoes*. The passages on the DAT will be titled according to their Topics, so you should be able to ascertain this within the first five seconds of reading.

**Scope:** the specific aspect of the topic that is the focus of an individual paragraph. The scope shifts throughout the passage but always relates back to the topic. For example, if the topic of a passage is *antibiotics*, an individual paragraph might have a scope of *penicillins and cephalosporins, mechanisms*, or *side effects*.

**Tone:** the author's attitude toward the material at hand. Since the passages are related to science topics, most authors attempt to maintain relatively neutral stances, but subtle clues can indicate if an author is *positive, negative*, or truly *neutral* toward the subject matter.

**Purpose:** the reason why the author wrote the passage or how he is trying to change your mind. The purpose is always a verb, such as to *explain, evaluate, argue,* or *compare*.

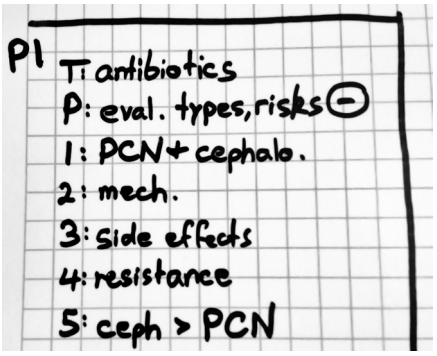



**Figure 52.1**

Each passage map component can convey extensive meanings, but your actual notes only need to contain enough information to help you remember the broader ideas. Make use of your own shorthand to ensure your notes for each item average approximately two to three words each. When you've finished your passage map, you should have written one overall topic, purpose, and tone for the entire passage and one scope for each individual paragraph, such as in Figure 52.1, above.

## DISSECTING AN ARGUMENT

Some Reading Comprehension questions ask about the structure of a passage and the function of specific words, sentences, or paragraphs. Being able to characterize each component of the passage into categories—such as supporting evidence or refutation, analogy or example, detail or inference, and fact or opinion—means you not only will be able to answer questions that ask for exactly that, but you will also have a deeper understanding of the passage as a whole, which is helpful for any question.

### Parts of an Argument

An **argument**, in literary terms, is a set of reasons an author uses to convince you of some point. Sometimes an author is attempting to persuade you into supporting (or dismissing) a theory; other times, he is simply teaching you new information. Either way, the author wants you to believe his main idea or **conclusion**. The evidence, examples, and logic the author uses to support that conclusion and prove he is correct are the **evidence**.

When the author directly states these ideas in the passage, they can be called **explicit**. However, sometimes the author doesn't include either the conclusion or all the evidence plainly in his writing and instead requires you to determine some of them on your own because the ideas are only **implied**.

If the author sets up all the evidence but forces you to realize his conclusion yourself, then you are making an **inference.** This can be a strong literary technique; if you come to a conclusion on your own rather than being told, you often are more likely to believe it. However, this does require some (minimal) work on your part, so the test makers use Inferences as one of their question types.

**Assumptions**, or implied evidence, are tested much less often. Not all possible types of evidence qualify as assumptions; instead, only the pieces of evidence required for the argument to make sense logically are classified as assumptions.

Consider the example of this statement: *Doberman Pinschers have bitten children, so no one should own any dogs.* The conclusion the speaker wants you to believe is that *no one should own any dogs;* the evidence is that *Doberman Pinschers have bitten children.* Since the conclusion is stated explicitly, you don't need to make an inference. However, several assumptions that the speaker believes to be obvious must be true for the logic to make sense: Doberman Pinschers must be representative of all dogs; otherwise, the evidence does not connect to the conclusion of *any* dog. Additionally, children being bitten must be unfavorable; if the listener actually wants children to be bitten, then the conclusion once again does not align with the evidence.

### Facts and Opinions

The evidence of an argument can be further classified as fact or opinion. A **fact** is an unbiased observation or something that is irrefutable. An **opinion** interjects the author's feelings on or

evaluation of a subject. To identify each, watch for the specific phrasing the author uses. Words like *should* and *seems* and phrases like *in my opinion* and *I believe* are good clues that the author is describing an opinion, but sometimes the clues are more subtle. When you need to differentiate between fact and opinion, such as in the following exercise, consider whether everyone would agree given the same data (fact) or if there could be multiple interpretations (opinion).

### *Practice exercise*

Directions: Determine whether each statement is a fact or the author's opinion.

1. To assert that the ideal of democratic rule began with the Magna Carta is to misunderstand that the document was actually the product of a power struggle between two factions—the throne and the nobility—that were completely unconcerned about the rights of the common man.
2. Frank Lloyd Wright's designs are still held in very high regard by both the architectural community and the general public.
3. The federal government has claimed for years that reforms to make the income tax system more progressive will soon be enacted, but this seems very unlikely in light of the government's disinterest in easing the burden on low- and middle-income wage earners.
4. Some scientists believe that a layer of iridium in the Earth's crust proves a comet struck the planet, wiping out the dinosaurs; others argue that this layer was formed as the result of volcanic activity.
5. Astronomers long ago established that nebulae—clouds of interstellar gas and dust—are regions of space that give birth to new stars.
6. Literary critics have rightly concluded that the interest in "ethnic inheritance" displayed by George Eliot in her novels was sparked by her inability to feel comfortable in her own surroundings.

***Solutions to practice exercise***

1. **Opinion:** the statement refutes a *misunderstanding* of the Magna Carta held by others.
2. **Fact:** the statement repeats a generally acknowledged truth about Frank Lloyd Wright.
3. **Opinion:** the statement takes issue with the government's claim about taxes that *seems* unlikely.
4. **Fact:** the statement describes two different views about the origins of the iridium layer.
5. **Fact:** the statement repeats a scientific observation about the birth of stars.
6. **Opinion:** the statement describes a generally accepted interpretation of George Eliot's work as *right*.

CHAPTER FIFTY-THREE

# Question Types

The test makers use the same types of questions in every Reading Comprehension section. You'll see some **comprehension** questions that test about basic facts from the passage, but you also can expect other questions that test a deeper understanding of the ideas through **analysis** and **evaluation**, so it's important to be prepared for various levels of critical thinking. Although you won't earn any points directly by identifying what type each question is on Test Day, identifying question types will help you make efficient predictions and avoid wrong answers.

## QUESTION TYPES

### Global

Global questions test how well you understand the passage as a whole and ask for the main idea, conclusion, or thesis of a passage or paragraph. If you follow Kaplan's passage mapping strategy (see Chapter 52, Reading Critically), then you will already have determined the overall topic and purpose of the passage as well as the scope of each paragraph before reading any of the questions. When you do reach a Global question, all you need to do is predict the answer based on your written passage map. You can identify Global questions by their use of phrases such as *main purpose, title,* or *overall point.* Although each passage generally does not have more than one Global question, these can be quick points on Test Day.

### Detail

Detail questions are by far the most common question type and ask about statements found explicitly in the passage. These questions are often preceded by the phrase *according to the passage*. Detail questions are *not* asking about your own logic but merely about a statement directly from the passage. The best strategy for these questions is to use your notes as a literal map to show you where in the passage you should go to research the answer. You should be able to find phrasing in the passage that exactly or nearly exactly matches the correct answer choice. If you find yourself frequently missing Detail questions, ensure you are spending enough time researching; one hint is to not let yourself select the correct answer until you can point to the place in the passage that directly supports the answer choice you believe is correct.

## Detail EXCEPT

Many questions ask you to choose the one answer that is true based on the passage. Detail EXCEPT questions reverse this and ask you to choose the one answer that is FALSE. These questions have phrasing similar to *the author mentions all of these items EXCEPT*. Four of the answer choices will appear in the passage, and one won't, so using the process of elimination is useful for these questions. Note, however, that finding four separate facts from a passage can be a slow process, so consider making quick educated guesses and saving thorough evaluation of these questions for last if you are running out of time in a section.

## Tone

The author's tone or bias is rarely stated directly in a passage but is often heavily implied. Although the author of a passage may not say "I love penguins" verbatim, he may use words to describe them that indicate his opinion, such as *fascinating, remarkable, interesting,* and *superior,* to make his bias clear. Looking for these types of Opinion keywords while initially reading makes answering Tone questions straightforward, and a good prediction is one based on the overall tone of positive, negative, or neutral from your passage map. Tone questions tend to include clear indicators of their type, such as the words *tone, bias,* or *feels.*

## Function

Function questions require you to evaluate the way the author constructed his argument. A limited knowledge of rhetorical strategies is helpful in answering these kinds of questions. Authors might use rhetorical questions, analogies, counterexamples, or other techniques that can be asked about in Function questions. There are two subtypes of Function questions: Structure and Evaluation. As with other question types, you will want to refer back to the passage and to your map to identify the correct answers.

### *Structure*

Structure questions are types of Function questions that ask about how the author organized the passage or a part of the passage. For example, a Structure question might ask about the flow of the passage, requiring you to identify where the author's conclusion is within the passage and how other paragraphs relate to the author's main point. Your roadmap will be especially helpful in these kinds of questions because you'll already have an idea of how the passage was put together and can use that as your prediction. Other questions might be about specific sentences and require you to determine if the author is stating a fact or offering an opinion. When answering questions about fact versus opinion, refer back to the passage to check the context of the clause referred to in the question stem. These questions rely heavily on your ability to recognize keywords in the passage, which will frequently be sufficient to clue you in to the answer.

### *Evaluation*

An Evaluation question takes the task in the Structure subtype one step further. Not only do you need to recognize how the author constructed the argument using rhetorical techniques, but you need to be able to consider *why* the author did something in the passage. Evaluation questions will ask you something like *Why did the author include X phrase?* or *What function does X serve in the passage?* To answer this kind of question, start by determining in which paragraph the detail occurred, then evaluate how that sentence or clause relates to the paragraph's scope, which should already be in your roadmap. If the relationship is unclear, you can find more clues by going back to the passage and looking at the surrounding sentences to identify more of the context. Consider what effect the

phrase has on the rest of the paragraph or overall argument. Often these questions can be answered by identifying whether a statement is the author's conclusion or supporting evidence.

Some Evaluation questions might ask about the purpose of one paragraph and how it fits in with the rest of the passage. The question stems are usually very straightforward in these instances, asking things like *What was the purpose of paragraph X?* For this style of question, check how the paragraph's scope relates to the entire passage's purpose, both of which should already be in your roadmap. You'll likely find that these questions are fairly quick to answer.

### Inference

Inference questions test your ability to use the information in the passage to draw conclusions. They may be worded in a variety of ways, such as *it can be inferred from the passage* or *the phrase X implies*. Inference questions ask you to read between the lines and find the relationships between ideas. The correct answer will be a small step from what is said directly in the passage—but only a small step. Most Inference questions have strong clues in the passage, such as a specific detail, word choice, or tone, that will help you determine just what the author is trying to convey. Although the correct answer may not be stated explicitly in the passage, you can still determine it by restating something that was said or by combining ideas from two different sentences in the passage. Stick to the evidence in the text and avoid any answer choices that seem far-fetched.

### Strengthen/Weaken

The final question type tends to be the least common and pertains to how new information affects an existing argument from the passage. These questions may ask you to find the statement among the answer choices that most strengthens or weakens an argument, such as *Which of the following best supports the author's contention that X?* Other Strengthen/Weaken questions may give you new information in the question stem and ask you to determine whether it strengthens, weakens, or has no effect on a position from the passage. In either format, your task is to determine how the new information fits with what the author has already written. As when attempting the other question types, beware of applying too much of your own reasoning or outside knowledge. Instead, treat these as matching exercises. For each piece of new information, you generally will be able to find a statement in the passage that almost exactly matches (meaning the new information strengthens that argument) or that is almost exactly the opposite (meaning the new information weakens that argument). If you can't find a match, that usually means a statement has no relevant effect on what's in the passage. Sticking with the mindset that you need to find a match will allow you to quickly answer these questions and avoid the trap statements that sound good but really don't directly affect what the author is actually saying.

## TRIAGING

Another benefit of identifying question types is that some types are answered in less time than others. The order of the question types listed above is an approximate order of difficulty. Typically, Global and Tone questions can be answered fairly quickly by referring to your map. Most Detail questions direct you to a specific place in the passage and require that you simply recognize or comprehend the detail in question. However, remember that Detail EXCEPT questions may be more time-consuming since they can require the process of elimination, which is slower than prediction. Function, Inference, and Strengthen/Weaken questions all require higher level skills so may be more challenging

and slightly more time-consuming. Answer the lower-level questions first and then tackle the higher-level questions when working on a passage. Often, a lower-level question will help you answer a more challenging question, saving you time and earning you even more points on Test Day.

## WRONG ANSWER PATHOLOGIES

Although identifying question types can help with making clear predictions of the correct answer choices, it can sometimes be just as important to know what makes an answer choice wrong as what makes one right. Wrong answer choices fall into predictable categories, and analyzing those categories allows you to get inside the mind of the test writers, which is key to maximizing your score. By identifying the common traps the test makers use, you can quickly avoid them and more easily match your predictions.

Note that many wrong answer choices correspond with multiple wrong answer pathologies. It's not important to definitively identify what makes an answer choice most wrong. Instead, as soon as you realize an answer choice is incorrect for any reason, eliminate it and keep moving. Likewise, if you have found the correct answer, don't spend time evaluating why each wrong answer choice is incorrect; in fact, evaluating all of the choices is one of the most common reasons for running out of time during a section. Instead, only use the wrong answer pathologies to aid in quickly making matches and when using the process of elimination due to being unsure of the correct answer.

Although recognizing these wrong answer pathologies is most useful in the Reading Comprehension section, the test makers use the same patterns in the other sections as well, so feel free to apply these ideas throughout the entire test!

### Faulty Use of Detail

A Faulty Use of Detail is when an answer choice comes directly from the passage but does not answer the question being asked. These incorrect choices can come from a different paragraph than the one being asked about or describe ideas that are too narrow or too broad to answer the given question.

For example, Faulty Uses of Detail often are used with Global questions asking for the main idea of an entire passage. Such questions are looking for the overall topic and purpose, so any answer choices that describe only one specific scope or focus too much on only one example are incorrect. Although these specific Faulty Uses of Detail may accurately describe what is in the passage, they don't accurately reflect the main idea so are incorrect. To avoid these kinds of traps, always paraphrase and think about every question stem before tackling it to ensure you don't miss what's being asked.

## Opposite

Opposite choices tend to be entirely correct except for one word, such as *not, false*, or *except*, that completely changes their meanings. Although Opposite choices are completely false as written, it can be easy to overlook that one important word in the question stem or answer choice. To avoid Opposite choices, slow down to ensure you carefully read the entire question stem and the answer you have chosen.

## Distortion

Some answer choices contain parts that are correct alongside parts that are not. These often come in the form of Distortions, in which information is taken from the passage but then slightly changed to be incorrect. Similar to Opposite choices, Distortions can be wrong because of just one word, but for Distortions that word often ascribes an opinion that wasn't expressed in the passage, such as *more*, *better, worse*, or *preferred*.

One very common form of Distortion is the **Extreme** answer choice, which takes those ideas even further. An Extreme choice uses an idea from the passage but then adds an absolute word, such as *always*, *must, all, cannot,* or *never*. This tends to make a reasonable statement, such as "Most mammals bear live young," into an incorrect statement, such as "All mammals bear live young" (which is incorrect because monotremes, such as the playtpus and echidna, are mammals that lay eggs).

To avoid Distortions, ensure you have read every word of the answer choice you have chosen as correct, paraphrasing that choice to ensure it is completely right.

## Out of Scope

Sometimes, an answer choice for a Reading Comprehension question describes a true statement, but that statement is not supported by information from the passage. Other times, an answer choice will seem perfectly logical but, again, is not mentioned in the passage. These are examples of Out of Scope answer choices. In the Reading Comprehension section, every correct answer must be directly supported by the passage, so using outside knowledge or even excessive reasoning can lead to choosing an incorrect answer choice. Since Out of Scope answer choices make logical sense, the best way to avoid falling into this trap is to make a strong prediction based on the passage before reading the answer choices, allowing you to bypass most choices completely since they will not match with that kind of clear prediction.