

ADVANTAGE Test Prep

Grade

7

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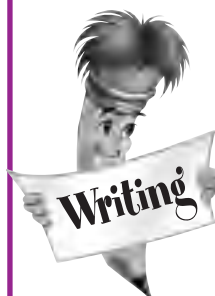
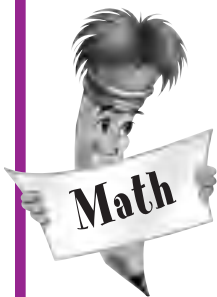


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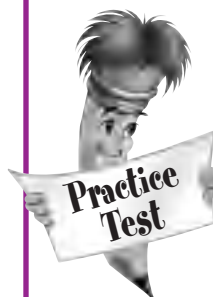
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Introduction

Testing in reading, writing, language, and mathematics have taken on a large role in education today. This workbook is designed to help students practice the skills and strategies that they will encounter on standardized and proficiency tests. Even if students don't have to take these tests, they will benefit from practicing the skills and strategies taught in this workbook.

Standardized Tests

Standardized tests are administered in the exact same way to hundreds of thousands of students across the United States. They are also referred to as *norm-referenced tests*. Norms give educators a common standard of measurement of students' skills and abilities across the country. Students are ranked according to their test scores and then assigned a percentile ranking. For example, a percentile score of 85 means a student scored higher than 85 percent of the students who also took the same test.

Proficiency Tests

Many states develop their own statewide proficiency tests. Proficiency tests are also known as *criterion-referenced tests*. This means that the test is based on a list of standards and skills (also called criteria). States develop standards for what students should know at each grade level. The proficiency test evaluates a student's mastery of set standards.

Standardized tests and proficiency tests look similar. However, their measurement is different. A proficiency test measures a student's mastery of set standards. A standardized test compares a student's achievement to others who took the same test.

Although the measurement is different, standardized and proficiency tests do have similarities in that they are used to:

- evaluate students' progress, strengths, and weaknesses.
- select students for remedial or achievement programs.
- tell educators where and how school systems can be improved.
- evaluate the success of school programs.
- help educators develop programs to suit their students' specific needs.

Both of these types of achievement tests are administered essentially the same way. They ask multiple-choice and open-response questions, and they have time limits. An important goal of this workbook is to teach test-taking strategies so that no matter which test your child is required to take, he or she will be successful.

Introduction

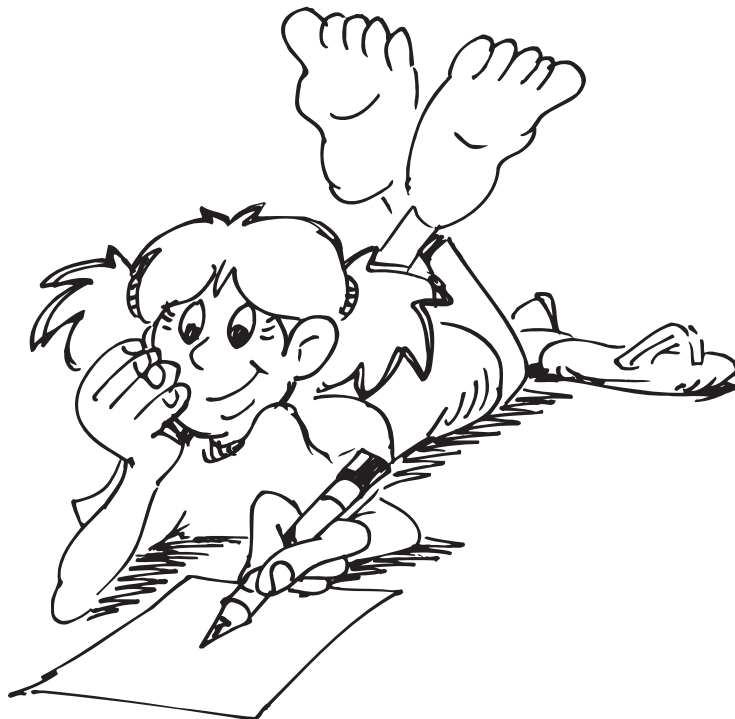
Preparing for Tests

The more students are prepared for taking standardized and proficiency tests, the higher they will perform on those tests. A student who understands the skills commonly measured and who practices test-taking strategies is more likely to be a successful test-taker. The more the student knows what to expect, the more comfortable the student will be in the actual test-taking situations.

Many tests were reviewed in developing the material for this workbook. They include the following:

- **California Achievement Tests (CAT)**
- **Comprehensive Test of Basic Skills (CTBS)**
- **TerraNova**
- **Iowa Test of Basic Skills (ITBS)**
- **Metropolitan Achievement Tests (MAT)**
- **Stanford Achievement Tests (SAT)**
- **Texas Assessment of Knowledge and Skills (TAKS)**

It is important to remember that standardized and proficiency tests are only one measure of student achievement. Teachers use many other methods to gain insights into each student's skills, abilities, and knowledge. It is a good idea to speak with your child's teacher to discuss and understand all the methods used in evaluating your child.



Introduction

How Can Parents Help Students Take Standardized Tests Successfully?

The following list includes suggestions on how to help prepare students to do their best on standardized tests.

Tips for Parents

- Monitor your child's progress.
- Get to know your child's teacher; find out what he or she thinks you can do to best help your child at home.
- Be informed about your state's testing requirements.
- Motivate your child to prepare.
- Help your child structure a quiet place and time away from distractions to do homework.
- Read aloud to your child.
- Find learning experiences in everyday life such as making change, reading signs, preparing food, or walking outside.
- Make sure your child is getting the sleep and nutrition he or she needs to succeed.
- Always nurture your child's curiosity and desire to learn.
- Encourage your child to learn about computers and technology.
- Encourage your child to take tests seriously, but to value learning and giving one's best efforts.
- Notice academic efforts your child is making and support and acknowledge what you see.

Where Can I Learn More About Testing?

National Center for Fair and Open Testing, Inc. (FairTest)
342 Broadway
Cambridge, MA 02139
<http://www.fairtest.org/>

Visit the Web site of the Department of Education for your state. Most states post information about standardized and proficiency tests that they administer to students.

Introduction to Reading



Reading is a skill that will help you do well in school as well as in life. You also need to be a good reader to perform well on standardized tests. The more you read, the better you will read. And the better you read, the more you'll enjoy it and the higher you'll score on tests. Read as much as you can. Choose many different types of reading materials. Read by yourself or with others. Read aloud or silently. Practice listening to how words sound. When you read stories, think about who the characters are and how the story develops and progresses.

Nearly every standardized or proficiency test includes a section on reading. The reading passages may be fiction, nonfiction, or poetry. They may also include graphic information like maps, graphs, charts, or time lines. You might also find reference sources, like indexes or dictionary entries. You will be asked to recall, interpret, and reflect on what you read.

The following pages give a review of reading skills. You will practice the skills with questions just like the ones you will find on standardized tests. Practicing these skills now will help you perform better on test day. In this section, you will learn to:

- use **context** to find the meaning of words.
- examine **roots, prefixes, and suffixes**.
- analyze **cause and effect**.
- follow **multi-step instructions**.
- make **generalizations**.
- interpret words with **multiple meanings**.
- interpret **analogies**.
- analyze **character, plot, and conflict**.
- draw **conclusions**.
- analyze literary devices such as **foreshadowing** and **symbolism**.
- make **inferences**.
- read and understand **maps, graphs, charts, and time lines**.
- use an **index**.
- use a **dictionary entry**.

The Science of Flight

If you're like most people, you've probably been puzzled by an odd fact. You know an airplane weighs many tons. Yet, you've looked up in the sky countless times to see one of these amazing (and amazingly heavy) objects flying through the air, seemingly defying gravity. How an airplane—or bird—can stay aloft is a fascinating subject. In fact, the only thing holding the airplane up is air!

The key to flight is a scientific principle called *lift*. It was first described by a Swiss scientist named Daniel Bernoulli in 1738. Lift allows an object to fly, thanks to differences in air pressure. Compare a bird's wing to an airplane's wing and you'll see they share some important characteristics. Both are thicker at the front than at the back. Both are flat on the bottom and curved on the top. Scientists call this unusual shape an *airfoil*.

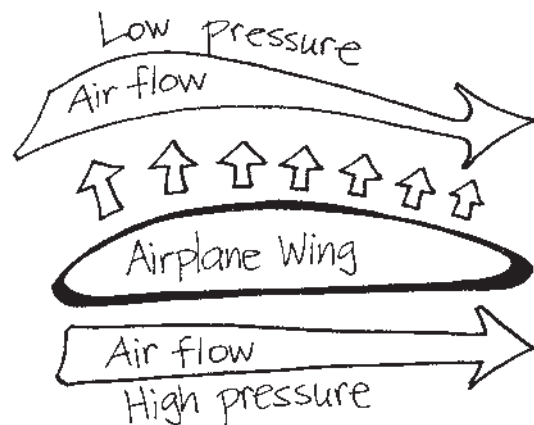
As Bernoulli discovered, the airfoil shape creates different air pressures above and below the wing. As the bird or airplane moves forward (an activity known as *thrust*) wind rushes over and under the wing. The air rushing over the curved top part has a lower pressure than the air passing underneath the flat bottom of the wing. This pressure difference occurs because faster-moving air has a lower pressure than slower-moving air. The air has to move faster to get over the curved top of the wing than it does to slip by the flat underside.

This difference in air pressure, now known as the Bernoulli effect, actually creates a vacuum. The vacuum pulls the wing upward, along with the rest of the airplane or bird. As long as a wing is moving forward fast enough, the air it meets moves by the wings fast enough to keep the object aloft. Think about what happens when an airplane comes in for a landing. It slows down, resulting in a loss of forward motion, or thrust. Less thrust equals less lift, and the plane drops to the ground.

If you're skeptical that moving air can be powerful enough to lift a heavy object, there's a little experiment you can do. Cut a thin strip of onionskin or tracing paper. Hold the strip of paper just under your lips with both hands. Then blow over the top of the paper. Direct your breath downward over the paper like you're blowing into a pop bottle. You may be surprised at what happens next. As you blow harder, the air coming from your mouth moves faster. However, it doesn't push the paper downward. The slip of paper rises.

You've just experienced the phenomenon that Bernoulli analyzed over 250 years ago. Lift and thrust, the forces that lift your strip of paper, are the same forces that keep jets zooming and birds soaring.

How Air Pressure Creates Lift



VOCABULARY



KNOW THE SKILL: WORDS IN CONTEXT

Some test questions ask you to figure out the meaning of a word. Often you can guess the meaning of the word by thinking about the word's context. Context is the meanings of the other words around the unknown word.

DURING THE TEST

To learn what a word means from the context of the sentence, look for the verb or subject in the sentences around it. These words will give you clues about the unknown word.

TEST EXAMPLE

- 1 Which word means the same thing as *skeptical*?
If you're skeptical that moving air can be powerful enough to lift a heavy object, there's a little experiment you can do.
- (A) certain (C) unhappy
(B) doubtful (D) uninterested

THINK ABOUT THE ANSWER

The correct answer is option B, *doubtful*. Option A is incorrect because if you were certain about the effect of moving air, you wouldn't have to do the experiment. Option C, *unhappy*, doesn't make sense in the sentence. Neither does option D, *uninterested*.

NOW YOU TRY IT

- 2 Choose the word or words that mean the same thing as *aloft*.
- As long as a wing is moving forward fast enough, the air it meets moves by the wings fast enough to keep the object aloft.
- (F) moving
(G) hanging
(H) at the front
(J) in the sky

Check your answer on page 109.



That One's Out

When answering vocabulary questions like these, plug each choice into the sentence and ask yourself if it makes sense. Some will not, and you can eliminate these right away.

VOCABULARY



KNOW THE SKILL: **ROOTS, PREFIXES, AND SUFFIXES**

Tests will ask you to analyze word bases and the beginnings and endings of words to determine word meaning. A **root** is the main part, or base of a word. A **prefix** is placed at the beginning of a root, while a **suffix** goes at the end of a root. Some common prefixes are *un-*, *non-*, *ex-*, *pre-*, and *bi-*. Some common suffixes are *-able*, *-ish*, *-ly*, *-ness*, and *-ance*.

DURING THE TEST

Look for a part of an unknown word, the prefix, root, or suffix, that resembles one you already know. For example, *tortuous* contains that same root as *torture*. The adjective suffix *-ous* is added. This helps you guess that the word *tortuous* means, “very hard, almost like being tortured.”

TEST EXAMPLE

- 1 Which word or words best replace *seemingly*?

An airplane can fly through the air, seemingly defying gravity.

- (A) as if
- (B) without
- (C) proudly
- (D) in addition to

THINK ABOUT THE ANSWER

The answer is option A. The root *seem* in *seemingly* can mean, “something that looks one way but is really another way.” The airplane *seems* to be defying gravity, but as you learn later, it is really held up by the difference in air pressure above and below its wings.

NOW YOU TRY IT

- 2 Which answer best defines *beneficiaries*?

Modern business travelers are certainly the beneficiaries of Bernoulli’s discoveries.

- (F) people who study Bernoulli
- (G) people who ignore Bernoulli
- (H) people who mistrust Bernoulli
- (J) people who are positively impacted by Bernoulli

Check your answer on page 109.



Beginnings and Endings

Use your knowledge of prefixes and suffixes to eliminate nonsense choices in questions that focus on word meanings.

COMPREHENSION



KNOW THE SKILL: **ANALYZE CAUSE AND EFFECT**

Some test questions will ask you to analyze what caused an event or what the effect of an event was. A **cause** is a reason why something happens. An **effect** is the result of an event or action.

DURING THE TEST

To pinpoint a cause, ask yourself, “What caused this? Why did this event happen?” Find an effect by asking yourself, “What is the result of this? What happened because of this?”

TEST EXAMPLE

- 1 Choose the answer that best completes the sentence.
- As the plane’s thrust increased, its lift _____.
- (A) decreased slightly
 - (B) increased the plane’s speed
 - (C) raised the plane from the runway
 - (D) increased the air pressure below the wings

THINK ABOUT THE ANSWER

Option C is correct. According to the reading selection, the thrust, or forward movement of the plane increases the lift on the wings, allowing the aircraft to take off into the air. The increased thrust is the cause, while the greater lift—and takeoff—is the effect.

NOW YOU TRY IT

- 2 Choose the answer that best completes the sentence.
- Because of Daniel Bernoulli’s scientific discoveries about airfoils and air pressure, _____.
- (F) birds began to fly.
 - (G) scientists invented the airfoil.
 - (H) thrust increased around the world
 - (J) people were able to develop airplanes

Check your answer on page 109.



Stay Focused

Do not let anything distract you, especially other test-takers. Don’t waste time looking out the window or at the other people in the room. You should have one focus and one focus only—the test!

COMPREHENSION



KNOW THE SKILL: FOLLOW MULTI-STEP INSTRUCTIONS

Some tests will ask you to arrange the different steps in a procedure in correct order. You may also be asked to read instructions about a procedure and answer questions about the instructions.

DURING THE TEST

When answering questions about step-by-step procedures or instructions, always ask yourself if the steps are arranged in the most logical order. Check to see whether each step can be done only before or after the other steps.

TEST EXAMPLE

- 1 Which step is NOT necessary to prove the Bernoulli effect?
- (A) blowing into a pop bottle
 - (B) cutting a thin strip of paper
 - (C) holding a strip of paper under your lips
 - (D) blowing over the top of a strip of paper

THINK ABOUT THE ANSWER

Option A is the correct answer. Blowing into a pop bottle is not part of the procedure described in the selection. The text says to blow over the thin strip of paper as if you were blowing into a pop bottle.

NOW YOU TRY IT

- 2 Which step in the procedure described in the selection must be performed first?
- (F) Blow downward over a strip of paper.
 - (G) Hold a strip of paper under your lips.
 - (H) Cut out a thin strip of paper.
 - (J) Lift up the strip of paper.

Check your answer on page 109.



Write It Down

When working with instructions or procedures, don't hesitate to use scratch paper to make notes about the correct order of the steps.

COMPREHENSION



KNOW THE SKILL: **MAKE GENERALIZATIONS**

When you make a generalization, first draw a conclusion based on what you have read in a selection. Base your conclusion on what you read and what you already know. Then, use the conclusion to make a generalization. Go beyond what you have read to make a broader statement that you believe to be true and correct, based on your reading and previous knowledge.

DURING THE TEST

Test a possible answer by saying “In general...” and then the statement. If it sounds wrong or unrelated to the information, eliminate it.

TEST EXAMPLE

- 1 Which generalization about the selection is the most accurate?
- (A) Flying is very dangerous.
 - (B) Most people are afraid of flying.
 - (C) Experiments with strips of paper are not very convincing.
 - (D) Successful flight depends on a good understanding of scientific principles.

THINK ABOUT THE ANSWER

The correct answer is option D. It is supported by both the selection and by common knowledge. The other options are not supported by the selection so they can be ruled out.

NOW YOU TRY IT

- 2 Which generalization is NOT supported by the selection?
- (F) Air pressure is not very well understood.
 - (G) Modern science builds on the contributions of many people.
 - (H) Many people probably do not understand the science of flight.
 - (J) Experiments can convince people about the truth of scientific ideas.

Check your answer on page 109.



Build Your Stamina

Some standardized tests can last for hours, so it is important to get use to working for long periods of time. Set aside longer and longer periods of time to do your homework. This will help you stay sharp during a long test.