

FROM THE MAKERS OF THE ACT®

THE

OFFICIAL

ACT®

READING GUIDE

SECOND EDITION

A Step-by-Step Guide Outlining the Preparation for the ACT®

FEATURES

- The only book with real ACT® reading questions organized by question type
- Includes tips and advice for reading more quickly and retaining information
- Includes 100s of official ACT® questions with answers and explanations

WILEY

**THE
OFFICIAL
ACT**

READING GUIDE

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Introduction

The ACT tests measure your understanding of what you've been taught in core high school courses. This guide will help you succeed on the ACT reading test. Reading is a skill you have been practicing throughout your academic career. You read in different ways for different purposes. For example, you read a novel for your English literature course differently than you read a history textbook, and you read a novel for pleasure differently from you read one for your English course.

The following chapters contain questions taken from actual ACT reading tests that are aimed at enhancing your understanding of the knowledge and skills needed to succeed on the exam. Each question is followed by a detailed explanation of the answer. Chapters are organized by question type and passage type, which should help you see the patterns among the questions. Using this guide will help you become familiar with the content of the ACT reading test and the procedures you'll follow when you're actually taking the test. It also provides strategies for approaching the questions and content-specific test-taking tips.

This guide will help remind you of what you have already learned about reading and will likely teach you new skills and concepts as well. We hope this guide helps you identify your strengths and improve areas of weakness so you can show all that you know on your ACT reading test.

Chapter 1: An Overview of the ACT Reading Test

Passage Types

Passages fall into two main types: literary narrative and informational. Informational texts are drawn from the following genres: humanities, social science, and natural science. These passage types each have conventions for form and content. Each passage is followed by 9-11 questions. If you think of the reading test as four sections, you have 8 minutes and 45 seconds for each of the four sections. The test comprises four sections, three of which contain one long prose passage. The fourth section presents two shorter passages with some questions that require you to compare and contrast them. These paired texts can belong to any of the passage types. Every test will have one paired passage set, and it can occur anywhere in the test. There are 40 questions to answer in 35 minutes.

Literary Narrative

The literary narrative passages are excerpts from novels, short stories, or memoirs. Literary narrative does not include poems or scripts from plays. The excerpts typically include two to three characters. These passages focus primarily on characterization developed through the dialogue, actions, and thoughts relayed through the narrator. Though a conflict may be established at some point in the narrative, there is rarely a full story arc with a climax or resolution. Typically, a passage introduces only the characters. Most passages end with what might be considered a cliff hanger. Some insights are revealed about the dynamics between the characters but very little action

takes place. Though many literary narrative passages begin at a point of change in a character's life, the characters tend to remain static without undergoing dramatic changes over the course of the passage.

Humanities and Social Science Passages

Humanities and social science passages tend to address human beings and their relationships with one another, the world around them, and their shared history. Humanities passages range from literary criticism to articles about the Indian film industry. Social science passages cover topics such as politics, architecture, and sustainability. Both humanities and social science passages tend to be structured in a traditional thesis-driven essay format with a clear thesis at the end of the introduction and topic sentences that begin each body paragraph by reviewing the content of those paragraphs and how that content supports the thesis.

Natural Science

Natural science passages tend to follow a certain structure. Typically, they begin by describing a topic of study. Usually the topic is a scientific problem that will be examined or a hypothesis that will be evaluated. The introduction and initial body paragraphs then describe the knowledge that existed prior to a certain experiment or invention. Key terms will be defined. Then the later body paragraphs summarize studies that have been completed and the views of various scientists or outcomes of experiments.

Some science passages go into great depth about experiments, and others just summarize the theories of different scientists. Other passages detail all the obstacles that made the topic difficult to study in the first place.

Once a scientist is introduced with his or her first and last name, then that person is referred to by his or her last name throughout the remainder of the passage. For example, if biologist Rachel Carson is introduced at the beginning of a passage, she will be referred to as Carson for the remainder of the passage.

The conclusion paragraph typically discusses the limitations of the current data about the topic being studied. It may also offer ideas for further studies that could be completed or it may focus on the applications of the most recent data discovered. Sometimes science passages end with a reflection on the meaning of the scientific discovery.

Timing and Pacing

Your study plan should involve reviewing the content of this guide and taking timed practice tests to determine if you are retaining and applying what you have learned. You do not need to take your first practice test under timed conditions, but, eventually, you should practice using the correct pacing. For example, each English passage should take about 9 minutes. Each reading passage should take 8 minutes and 45 seconds. Many test centers only have an analog clock. If you are not able to easily read such a clock, bringing a digital watch may help you keep track of the time. Try to practice this way as well instead of using your phone's timers to time yourself during practice tests because you won't be able to use your phone during the actual test. You should also practice taking a full test in one sitting in the morning in order to mimic the testing conditions. Additionally, you should not read sentences out loud when you take practice tests because you will not be able to do this during the actual test.

The complete ACT test is always given in the same order. A break is given after the first two tests (English and math) are completed. Therefore, you should feel a bit energized as you head into test three: reading. If you do not have time to complete a full-length practice ACT, try to take a reading test after completing about an hour-and-a-half of homework because this will mimic the amount of time you will have spent taking the ACT by the time you get to the reading test.

Checking Your Answers

If you wish to double-check your work, you can do so either at the end of each passage while the content is still fresh in your memory or after finishing the complete reading test. Mark questions that you are unsure about with a symbol such as a question mark. When checking your work, be sure to consider the context of the passage as a whole, not just the referenced lines or most relevant paragraph. If you decide to change an answer, try to consciously recognize the reason for the change by saying to yourself, “I am choosing answer B because I now realize that this question includes the word EXCEPT. Answer C is incorrect because I accidentally thought the question was asking about what Ted and Vida *have* in common instead of what they do *not* have in common.” Using this process to slow down and articulate your thoughts process will help you be mindful as you double-check your answers.

Scaled Scoring

Here is a recent example of top-scaled scores:

Number Correct	Scaled Score		Number Correct	Scaled Score
40	36		32	30
38–39	35		31	29
37	34		30	28
36	33		—	27
34–35	32		29	26
33	31		28	25

Take a Diagnostic Practice Test

Before taking a diagnostic reading test, read [chapter 2](#), which offers suggestions about how to approach the reading test, and decide which approach you will practice. If you divide your time evenly among the passages, each passage should take 8 minutes 45 seconds from start to finish. You need to determine how much of that time you should dedicate to reading each passage and how much time to devote to answering the questions. Most students should first begin by spending three to four minutes reading each passage and the remaining time answering the questions. If that approach does not work well, try to spend about five to six minutes reading and the remaining time answering the questions. If possible, try to use printed copies of tests, because this enables you to practice in the same manner in which you will take your actual test. Being able to cross out answer choices, underline, and star information can help you process the passages and questions. In the online version of the test, you will have a highlighting tool.

How to Use This Guide

This guide begins with a review of a variety of approaches that can be used to tackle the ACT reading test passages. Next comes a description of a number of reading skills you will need for success on the ACT reading test and an overview of several question types that appear across different passages. These questions are accompanied by the relevant excerpts from the passages, and some excerpts are accompanied by explanatory notes that paraphrase the content of the passage. You may wish to hold off on reading the explanatory notes until you have attempted the question, using only the content from the passage itself.

Note: Entire passages are not always reproduced. Ellipses (...) indicate that a paragraph has been omitted. In order to provide information about which portion of the passage has been reproduced, paragraph numbers have been included in brackets as follows. Paragraph numbers will not appear on the actual exam. Line reference numbers will be included for every fifth line of text in this guide and on the actual exam.

HUMANITIES: This passage is adapted from the essay "My Life with a Field Guide" by Diana Kappel-Smith (©2002 by Phi Beta Kappa Society).

[5]

...In the thin summer shadow of the tree, quivering, like a veil, the book was 20 revealed, and I reached for it. A FIELD GUIDE TO WILD FLOWERS—PETERSON & MCKENNY, its cover said. Its backside was ruled like a measuring tape, its inside was full of drawings of flowers. By the end of that week I had my own copy. I have it still.

...

[8]

I had already figured out the business of the book's colored tabs. I turned in an authoritative way to

40 the Yellow part and began to flip through. By the time the last of my friends had disappeared up the trail, I'd arrived at a page where things looked right. Five petals? Yes. Pinnate leaves? Whatever. Buttercup? There are, amazingly, *eleven* buttercups. Who would 45 have thought? However hard I tried to make it so, my item was not one of them. Next page. Aha! this looked more like it. Bushy cinquefoil? Nope, leaves not *quiuite* right, are they? As the gnats descended, I noticed that there were six more pages ahead, each packed with 50 five-petaled yellow flowers—St. John's wort loose-strifes, puccoons.

[9]

Why I persisted in carrying it around and consulting its crowded pages at every opportunity, I have no idea. The book was stubborn; well, I was stubborn, too; 55 that was part of it.

The remainder of this guide covers the content and form of the various passage types: literary narrative, humanities,

social science, and natural science. Seeing questions and passages grouped by genre should help you gain a deeper understanding of how to navigate the process of reading the different passage types. As you complete practice questions, keep track of your mistakes and reflect on the processes you used to arrive at your answers. Try to develop an awareness of the types of reading passages and questions that you have trouble with so you can budget your time appropriately to maximize your score.

Chapter 2: General Reading Skills

Skimming

Skimming is essentially speed reading with a low level of comprehension. Use the structured nature of the humanities, social science, and natural science passages to help you vary your reading speed. For example, the first and last sentences of each paragraph are typically the most important, and the introduction and conclusion of each passage typically give the broadest framework for the content of the passage as a whole. Therefore, you can gather a great deal of information by focusing on comprehending these parts of the passage.

You might be surprised by how much you can understand from looking only at these portions of the text. When a passage includes a list such as wheat, barley, and kale, you can breeze through these details and simply try to commit to memory the location of the list within the structure of the passage in case you are asked about this information later.

Look at these key sentences from a passage adapted from *Biomimicry: Innovation Inspired by Nature* by Janine M. Benyus (©1997 by Janine M. Benyus). Compare your understanding of the main ideas of the passage based on these sentences alone to your comprehension after reading the full passage, which has these sentences underlined for you.

SOCIAL SCIENCE: This passage is adapted from *Biomimicry: Innovation Inspired by Nature* by Janine M. Benyus (©1997 by Janine M. Benyus).

Introduction First Sentence

If anybody's growing biomass, it's us. To keep our system from collapsing on itself, industrial ecologists are attempting to build a "no-waste economy."

Introduction Last Sentence

The first examples of this no-waste economy are collections of companies clustered in an ecopark and connected in a food chain, with each firm's waste going next door to become the other firm's raw material or fuel.

Topic Sentence of the First Body Paragraph

In Denmark, the town of Kalundborg has the world's most elaborate prototype of an ecopark.

Topic Sentence of the Second Body Paragraph

Waste steam from the power company is used by Novo Nordisk to heat the fermentation tanks that produce insulin and enzymes.

Topic Sentence of the Third Body Paragraph

Meanwhile, back at the Statoil Refinery, waste gas that used to go up a smokestack is now purified.

Topic Sentence of the Fourth Body Paragraph

Although Kalundborg is a cozy co-location, industries need not be geographically close to

operate in a food web as long as they are connected by a mutual desire to use waste.

Topic Sentence of the Fifth Body Paragraph

So far, we've talked about recycling within a circle of companies.

Topic Sentence of the Sixth Body Paragraph

Traditionally, manufacturers haven't had to worry about what happens to a product after it leaves their gates.

First Sentence of the Conclusion

When the onus shifts in this way, it's suddenly in the company's best interest to design a product that will either last a long time or come apart easily for recycling or reuse.

Last Sentence of the Conclusion

Today's bags, which have nine thin layers made of seven different materials, will no doubt be replaced by one material that can preserve freshness and can easily be remade into a new bag.

Synthesis of the Main Idea Based on the Previous Information

Companies are beginning to take responsibility for using materials in a sustainable way that considers the life cycle of the materials used to produce goods.

SOCIAL SCIENCE: Biomimicry: Innovation Inspired by Nature by Janine M. Benyus (©1997 by Janine M. Benyus).

If anybody's growing biomass, it's us. To keep our system from collapsing on itself, industrial ecologists are attempting to build a "no-waste economy." Instead of a linear production system, which binges on virgin raw materials and spews out unusable waste, they envision a web of closed loops in which a minimum of raw materials comes in the door, and very little waste escapes. The first examples of this no-waste economy are collections of companies clustered in an eco-park and connected in a food chain, with each firm's waste going next door to become the other firm's raw material or fuel.

In Denmark, the town of Kalundborg has the world's most elaborate prototype of an eco-park. Four companies are co-located, and all of them are linked, dependent on one another for resources or energy. The Asnaesverket Power Company pipes some of its waste steam to power the engines of two companies: the Statoil Refinery and Novo Nordisk (a pharmaceutical plant). Another pipeline delivers the remaining waste steam to heat thirty-five hundred homes in the town, eliminating the need for oil furnaces. The power plant also delivers its cooling water, now toasty warm, to fifty-seven ponds' worth of fish. The fish revel in the warm water, and the fish farm produces 150 tons of sea trout and turbot each year.

Waste steam from the power company is used by Novo Nordisk to heat the fermentation tanks that produce insulin and enzymes. This process in turn creates 700,000 tons of nitrogen-rich slurry a year, which used to be dumped into the fjord. Now, Novo bequeaths it free to nearby farmers—a pipeline delivers the fertilizer to the growing plants, which are in turn harvested to feed the bacteria in the fermentation tanks.

Meanwhile, back at the Statoil Refinery, waste gas that used to go up a smokestack is now purified. Some is used internally as fuel, some is piped to the power company, and the rest goes to Gyproc, the wallboard market next door. The sulfur squeezed from the gas during purification is loaded onto trucks and sent to Kemira, a company that produces sulfuric acid. The power company also squeezes sulfur from its emissions, but converts most of it to calcium sulfate (industrial gypsum), which it sells to Gyproc for wallboard.

Although Kalundborg is a cozy co-location, industries need not be geographically close to operate in a food web as long as they are connected by a mutual desire to use waste. Already, some companies are designing their processes so that any waste that falls on the production-room floor is valuable and can be used by someone else. In this game of "designed offal," a process with lots of waste, as long as it's "wanted waste," may be better than one with a small amount of waste that must be landfilled or burned. As author Daniel Chiras says, more companies are recognizing that "technologies that produce by-products society cannot absorb are essentially failed technologies."

So far, we've talked about recycling within a circle of companies. But what happens when a product leaves the manufacturer and passes to the consumer and finally to the trash can? Right now, a product visits one of two fates at the end of its useful life. It can be buried in a landfill or incinerated, or it can be recaptured through recycling or reuse.

Traditionally, manufacturers haven't had to worry about what happens to a product after it leaves their gates. But that is starting to change, thanks to laws now in the wings in Europe (and headed for the United States) that will require companies to take back their durable goods such as refrigerators, washers, and cars at the end of their useful lives. In Germany, the take-back laws start with the initial sale. Companies must take back all their packaging or hire middlemen to do the recycling. Take-back laws mean that manufacturers who have been saying, "This product can be recycled," must now say, "We recycle our products and packaging."

When the onus shifts in this way, it's suddenly in the company's best interest to design a product that will either last a long time or come apart easily for recycling or reuse. Refrigerators and cars will be assembled using easy-open snaps instead of glued-together joints, and for recyclability, each part will be made of one material instead of twenty. Even simple things, like the snack bags for potato chips, will be streamlined. Today's bags, which have nine thin layers made of seven different materials, will no doubt be replaced by one material that can preserve freshness and can easily be remade into a new bag.

The next question is an EXCEPT question, which asks you to find an answer choice that is not supported by the passage. It is being included here because it asks about the previous passage. Answering this question should also give you further practice with skimming and scanning for information.

91. According to the passage, waste emissions from the Asnaesverket Power Company are used to help produce all of the following EXCEPT:

- A.** insulin.
- B.** heating oil.
- C.** plant fertilizer.
- D.** industrial gypsum.

Scan for: waste emissions, insulin, heating oil, fertilizer, gypsum

The best answer is B because the passage doesn't mention waste emissions from the Asnaesverket Power Company being used to help produce heating oil. The other three answer choices are supported by the passage.

The best answer is NOT:

A because lines 27-29 state, "Waste steam from the power company is used by Novo Nordisk to heat the fermentation tanks that produce insulin and enzymes."

C because the process described in lines 27-29 "creates 700,000 tons of nitrogen-rich slurry a year" (lines 29-30), which Novo Nordisk gives to farmers for use as plant fertilizer.

D because lines 41-44 state, "The power company also squeezes sulfur from its emissions, but converts most of it to calcium sulfate (industrial gypsum), which it sells to Gyproc for wallboard."

Scanning for the Conclusion or Main Idea

Often questions ask about the main idea of a passage. This information can sometimes be found in the introduction or conclusion. Taking note of the following transition words

can help you identify times when a passage is drawing a conclusion, establishing a cause and effect relationship, or emphasizing a point. Sentences that synthesize information or draw conclusions can be especially helpful when it comes to determining the main idea of a passage.

Cause and Effect	Emphasis	Conclusion
accordingly	clearly	in conclusion
as a result	especially	in summary
as such	in fact	in total
because	in particular	all things considered
consequently	indeed	
ergo	however	
for	nevertheless	
hence	notably	
thus	regardless	
therefore	still	
since	though	
so		

Transitions That Signal Repetition

Some transition words essentially indicate that information will be repeated. Writers often repeat ideas for emphasis or elaboration. For example, a writer complaining about the lack of vegetarian options at a college dining hall might write the following.

Example 1

My dining hall rarely offers meatless entrées; **in fact**, last week, each entrée contained beef or poultry.

Notice that the second sentence is essentially making the same point as the first sentence does. The second sentence is simply more specific. The phrase “in fact” signals that the second sentence will reiterate the first sentence, usually in more specific terms. Sometimes the sentence that follows “in fact” will reiterate the previous idea in broader or more emphatic terms. Here are several examples of the use of these kinds of transition phrases in context. When you encounter transition words that signal emphasis or repetition, you can speed through the sentences that follow, knowing that they will not be adding any information that differs substantially from the content in the sentence directly prior to the transition phrase.

Example 2

“For extended human activities on the Moon or Mars, you must have self-sustaining biological systems, systems that are regenerative,” Dixon says. In other words, green plants. “They give you oxygen, consume your carbon dioxide, and recycle your water.”

Example 3

As we move from small to large animals, from mice to elephants or small lizards to Komodo dragons, brain size increases, but not so fast as body size. **In other words**, bodies grow faster than brains, and large animals have low ratios of brain weight to body weight. **In fact**, brains grow only about two-thirds as fast as bodies. Since we have no reason to believe that large animals are consistently stupider than their smaller relatives, we must conclude that large animals require relatively less brain to do as well as smaller animals.

Example 4

One of the things that I prided myself on was my ability to conceal my thoughts. **For example**, Rochelle had no idea that I had never even heard of field hockey or intramural sports. I had just looked her in the face and made myself a mirror, frowning when she frowned, raising my eyebrows just seconds after she'd raised hers.

Topic Sentences

The topic sentences should give you a general framework of the content of the full passage. Topic sentences are typically the first sentence of each body paragraph. They give an overview of the paragraph and how it relates to the thesis. Below you will find several topic sentences from a real ACT reading test passage. After reading the topic sentence, predict what the paragraph will be about and compare your prediction to the content of the actual paragraph. You should always read the introduction and conclusion more carefully because these sections of a passage always highlight the main idea of the passage. Therefore, the introduction has been reproduced first.

NATURAL SCIENCE: This passage is adapted from the article “Living Off the Land” by Lee Billings (©2009 by Seed Media Group LLC).

Introduction

To survive in space, astronauts need food, water, and air, all sent from the Earth at a very high price—each pound of material lofted into space costs upward of \$10,000. To maximize these precious resources, a spacecraft’s “physicochemical” life-support system recycles water through purifying membranes and uses electrochemical processes to replenish air with oxygen and scrub it of carbon dioxide.

Body Paragraph 1 Topic Sentence

These practices work reasonably well for the International Space Station, only some 300 kilometers above the Earth’s surface, or even for the three-day trip to the Moon.

Predict what the paragraph will be about. Then compare your ideas to the following actual paragraph.

Complete Paragraph 1

These practices work reasonably well for the International Space Station, only some 300 kilometers above the Earth’s surface, or even for the three-day trip to the Moon. But for extended space voyages or long-term bases on other worlds, even if all the air and water is efficiently recycled and purified, bringing along enough food can prove problematic.

Body Paragraph 2 Topic Sentence

“Food is what limits the equation in terms of long-term human space exploration,” says Mike Dixon, an environmental scientist at the University of Guelph in Ontario, Canada.

Predict what the paragraph will be about. Then compare your ideas to the actual following paragraph.

Complete Paragraph 2

“Food is what limits the equation in terms of long-term human space exploration,” says Mike Dixon, an environmental scientist at the University of Guelph in Ontario, Canada. For a lunar base with dozens of people, supplying food from Earth is feasible, Dixon says, but still prohibitive because “you’ll spend all your payload mass just supplying dinners for lunar explorers.”

Body Paragraph 3 Topic Sentence

Dixon and other researchers think the solution to the food problem is for astronauts to grow their own.

Predict what the paragraph will be about. Then compare your ideas to the actual following paragraph.

Complete Paragraph 3

Dixon and other researchers think the solution to the food problem is for astronauts to grow their own. His Controlled Environment Systems Research Facility at Guelph is considered the world’s best for investigating plant growth in unearthy low-pressure atmospheric conditions.

Body Paragraph 4 Topic Sentence

“For extended human activities on the Moon or Mars, you must have self-sustaining biological systems, systems that are regenerative,” Dixon says.

Predict what the paragraph will be about. Then compare your ideas to the actual following paragraph.

Complete Paragraph 4

“For extended human activities on the Moon or Mars, you must have self-sustaining biological systems, systems that are regenerative,” Dixon says. In other words, green plants. “They give you oxygen, consume your carbon dioxide, and recycle your water. And you can eat them. As life-support machines, they have no equal.” The problem is, plants require “life-support systems” of their own.

Body Paragraph 5 Topic Sentence

“The infrastructure and power required to support plant-based regenerative life support is actually quite large,” says Sherwin Gormly, an environmental engineer at NASA.

Predict what the paragraph will be about. Then compare your ideas to the actual following paragraph.

Complete Paragraph 5

“The infrastructure and power required to support plant-based regenerative life support is actually quite large,” says Sherwin Gormly, an environmental engineer at NASA. “When you examine how much material you’d need to launch to establish the

system and keep it going, it's hard to justify," he says.

Body Paragraph 6 Topic Sentence

To make matters worse, one crop alone can't be a self-sufficient life-support system.

Predict what the paragraph will be about. Then compare your ideas to the actual following paragraph.

Complete Paragraph 6

To make matters worse, one crop alone can't be a self-sufficient life-support system—an entire artificial ecology must be constructed and maintained for long periods of time, complete with all its delicate biochemical checks and balances. This is a task so daunting we've never quite achieved it even down here on Earth, though not for lack of trying. Space agencies around the world have mounted numerous hermetically sealed ecological experiments over the years, attempting to sustain human life without relying on our planet's natural ecosystem services. None have been unqualified successes—outside inputs inevitably are needed.

Body Paragraph 7 Topic Sentence

As of 2009, the best hope for advanced life-support systems is probably the European Space Agency's Micro-Ecological Life Support System Alternative (MELiSSA) project

Predict what the paragraph will be about. Then compare your ideas to the actual following paragraph.

Complete Paragraph 7

As of 2009, the best hope for advanced life-support systems is probably the European Space Agency's Micro-Ecological Life Support System Alternative (MELiSSA) project. In development for almost two decades, MEliSSA is seeking to "close the loop" between the production and consumption of metabolic nutrients by recycling and reusing solid and liquid organic waste with 100 percent efficiency. That is, the MEliSSA team hopes to create a self-sustaining system that turns waste material into vegetables, potable water, and fresh air.

Body Paragraph 8 Topic Sentence

The project uses a mix of high-tech physicochemical and biological approaches spread across five compartments, which, according to MEliSSA's top coordinator, Christophe Lasseur, are modeled on the ecosystem of a lake.

Note: This paragraph was only one sentence so it is not possible to predict what the remainder of the paragraph would say.

Body Paragraph 9 Topic Sentence

A lake bottom covered with anaerobic sludge inspired MEliSSA's first compartment, where bacteria feed on solid waste and release nutrients.

Predict what the paragraph will be about. Then compare your ideas to the actual following paragraph.

Complete Paragraph 9

A lake bottom covered with anaerobic sludge inspired MEliSSA's first compartment, where

bacteria feed on solid waste and release nutrients. Just above the lake bottom, light filters in but the water is still low in oxygen. Red algae thrives here, breaking down carbon compounds. This portion of the lake is similar to compartment two.

Compartment three is akin to the shallows near the lake's surface, where oxygen is plentiful and nitrifying bacteria convert the ammonia in urine to ammonium, a potent fertilizer. Compartment four is like the surface of the lake, where carbon dioxide, sunlight, and nutrients are plentiful and photosynthetic organisms clean the water and produce oxygen and food. The crew is the final step of the process: They live in compartment five, consuming the oxygen, water, and food to create waste that enters the cycle anew.

Conclusion

Off-planet, “green” lifestyles aren’t just fashionable, they’re required. Any eventual residents of a lunar base or Martian habitat will almost certainly be vegetarians, and thrift will be crucial for survival.

Navigating Lists

The following is an example of the kind of list of information you can speed through as you read. Simply note to yourself that this paragraph gives several examples of the way the narrator uses a field guide to identify flowers. Then return to this portion of the text if specific questions are asked about this content. Paragraph numbers have been indicated in brackets in this passage, but these brackets are not provided in the real test. They have been provided here in order to help orient you within the context

of the passage as a whole. Ellipses (...) indicate that paragraphs have been omitted.

HUMANITIES: This passage is adapted from the essay "My Life with a Field Guide" by Diana Kappel-Smith (©2002 by Phi Beta Kappa Society).

[5]

...In the thin summer shadow of the tree, quivering, like a veil, the book was 20 revealed, and I reached for it. A FIELD GUIDE TO WILD FLOWERS—PETERSON & McKENNY, its cover said. Its backside was ruled like a measuring tape, its inside was full of drawings of flowers. By the end of that week I had my own copy. I have it still.

...

[8]

I had already figured out the business of the book's colored tabs. I turned in an authoritative way to 40 the Yellow part and began to flip through. By the time the last of my friends had disappeared up the trail, I'd arrived at a page where things looked right. Five petals? Yes. Pinnate leaves? Whatever. Buttercup? There are, amazingly, *eleven* buttercups. Who would 45 have thought? However hard I tried to make it so, my item was not one of them. Next page. Aha! this looked more like it. Bushy cinquefoil? Nope, leaves not *quiite* right, are they? As the gnats descended, I noticed that there were six more pages ahead, each packed with 50 five-petaled yellow flowers—St. John's wort loosestrifes, puccoons.

Explanatory Notes

Paragraph 5 of this passage introduces *A Field Guide to Wild Flowers*. The intervening paragraphs have not been included because they do not affect the meaning of the eighth paragraph, which gives a vivid account of the narrator's use of the guide. Instead of trying to think carefully about the content of the eighth paragraph, think about its purpose. Look for any words that might signal significance. None occur, so you know that the function of this paragraph is simply to capture the narrator's enthusiasm about using the field guide. You can, accordingly, read this portion of the passage at a fast pace.

Scanning

Scanning means looking for specific information as your eyes move over the text. It can be helpful to have a set purpose as you scan the text. For example, you may have a certain word, phrase, or date you are looking for. You should particularly pay attention to the topic sentences of paragraphs when scanning. Scanning can help you quickly identify the similarities and differences indicated in a passage, for example, by looking for comparative or superlative adjectives such as better, best, more, most, oldest, or smartest.