

**English Language Arts
Grade 7**

Sample Items

Introduction

The South Carolina State Department of Education provides districts and schools with tools to assist in delivering focused instruction aligned with the *2024 South Carolina College- and Career-Ready English Language Arts Standards*. This document contains a set of twenty SC READY English Language Arts (ELA) Grade 7 test items that have been written to align with the *2024 South Carolina College- and Career-Ready English Language Arts Standards*. These items were reviewed for content and bias prior to being field tested and approved for release to the public.

Purpose

This document is intended to be a resource for educators; it is not designed to be a practice test for students. The sample items are examples of college- and career-ready assessment items. The SC READY test assesses content standards in a variety of ways. This document does not include all item types. To see the full functionality of Technology Enhanced item types, access the Online Tools Training. <https://portal.te.drcedirect.com/SC>

Item Information Format

SC READY ELA Grade 7 Sample Item (#)	
Indicator Alignment	2024 South Carolina College- and Career-Ready English Language Arts Indicator
Indicator Description	text from the South Carolina College- and Career-Ready English Language Arts Indicator
Item Type	Drag and Drop, Evidence-Based Selected Response, Highlighting, Selected Response
Answer Key	correct answer
Depth of Knowledge	cognitive demand
Estimated Difficulty	estimated based on student responses

Links

Assessment Quick Links for Teachers

<https://ed.sc.gov/tests/assessment-information/quick-links-for-teachers/>

South Carolina College- and Career-Ready English Language Arts Standards

<https://www.ed.sc.gov/instruction/standards/english-language-arts/standards/>

Norman Webb's Depth-of-Knowledge for the Four Content Areas

<https://www.webbalign.org/dok-summary-tables>

The essay below needs revisions or edits. Read the essay. Then answer the questions.

Adam's Bridge

(1) A shoal is a stretch of shallow water. (2) It can also be a sandbar in the water that is visible at low tide. (3) Between an island near Sri Lanka and another island off the coast of India lies a Chain of shoals called Adam's Bridge. (4) Being roughly thirty miles long. (5) Some researchers believe that Adam's Bridge may have once connected the two islands. (6) The bridge is described as a natural formation of limestone shoals; _____, some believe that the bridge was actually created by humans. (7) It is suggested in some historic writings that people in the fifteenth century could stroll between the two islands by walking across the bridge. (8) The hike across the bridge must be an exciting journey for many!

1. What is the **best** way to revise sentences 4 and 5 to correct the error in grammar?

(4) Being roughly thirty miles long. (5) Some researchers believe that Adam’s Bridge may have once connected the two islands.

- A. Some researchers believe that Adam’s Bridge, being roughly thirty miles long, may have once connected the two islands.
- B. Being roughly thirty miles long. Some researchers have come to believe that Adam’s Bridge may have once connected the two islands.
- C. Some researchers believe that being roughly thirty miles long, Adam’s Bridge may have once connected the two islands.
- D. Being roughly thirty miles long, some researchers are believing that Adam’s Bridge having once connected the two islands.

SC READY ELA Grade 7 Sample Item 1	
Indicator Alignment	C.4.1e
Indicator Description	Use the rules of and make intentional decisions about standard English grammar and conventions to write single and multi-paragraph compositions with varied sentence structure. When writing: e. identify and revise sentence fragments, run-on sentences, pronoun-antecedent agreement, and inappropriate shifts in verb tense.
Item Type	Selected Response
Answer Key	A
Depth of Knowledge	2
Estimated Difficulty	High

2. Which sentence would **best** conclude the essay?
- A. Ships usually cannot transit in the shallow stretches of sea where shoals are located.
 - B. The area in the Indian Ocean where Adam’s Bridge is located is called the Palk Strait.
 - C. Shoals can increase wave heights, decrease time between waves, or change the direction of waves.
 - D. Records suggest that Adam’s Bridge was above sea level until it was destroyed by a cyclone in the year 1480.

SC READY ELA Grade 7 Sample Item 2	
Indicator Alignment	C.2.1f
Indicator Description	Write informative texts to examine a topic and analyze information from one or more sources. When writing: f. provide a concluding statement or section that supports the information presented.
Item Type	Selected Response
Answer Key	D
Depth of Knowledge	2
Estimated Difficulty	High

3. Read the paragraph from a student's report about poet Maya Angelou.

Angelou received numerous honors for her contributions to literature. Two of these awards were from U.S. presidents. One of the awards was the country's highest civilian honor, the Presidential Medal of Freedom. In 2012, Angelou was inducted into the Wake Forest University Writers Hall of Fame.

Under which heading in the student's report would the paragraph **best** fit?

- A. Early Life
- B. Education
- C. Literary Career
- D. Achievements

SC READY ELA Grade 7 Sample Item 3	
Indicator Alignment	R.1.4
Indicator Description	Logically organize findings.
Item Type	Selected Response
Answer Key	D
Depth of Knowledge	2
Estimated Difficulty	Low

4. Which question would **best** help a student gain a deeper understanding of how important trains are?
- A. How much of the economy relies on trains?
 - B. How are train routes determined?
 - C. When did trains first start transporting people across the country?
 - D. Why do some people prefer taking trains when they travel?

SC READY ELA Grade 7 Sample Item 4	
Indicator Alignment	R.1.1a
Indicator Description	Conduct short and more sustained research by: a. generating a question(s) about a topic.
Item Type	Selected Response
Answer Key	A
Depth of Knowledge	2
Estimated Difficulty	Low

5. Read the excerpt from a student's narrative.

Joslyn and Sarah went to help at the rancher's horse barn. When she saw Tiffany, a female horse, Joslyn wanted to brush her hair. As she was doing that, Sarah started patting her head.

Teacher feedback suggested rewriting the paragraph to clarify the ideas presented in it.

Which revision **best** clarifies the ideas in the excerpt?

- A. Joslyn and Sarah went to help at the rancher's horse barn. When Joslyn saw Tiffany, a female horse, Joslyn wanted to brush her hair. As Joslyn was doing that, she started patting her head.
- B. Joslyn and Sarah went to help at the rancher's horse barn. When she saw Tiffany, a female horse, she wanted to brush her hair. As she was doing that, Sarah started patting the horse's head.
- C. Joslyn and Sarah went to help at the rancher's horse barn. When Joslyn saw Tiffany, a female horse, Joslyn wanted to brush the horse's hair. As Joslyn was doing that, Sarah started patting the horse's head.
- D. Joslyn and Sarah went to help at the rancher's horse barn. When she saw Tiffany, a female horse, she wanted to brush the horse's hair. As Joslyn was doing that, Sarah started patting her head.

SC READY ELA Grade 7 Sample Item 5	
Indicator Alignment	C.5.1
Indicator Description	Improve writing by planning, editing, and considering feedback from adults and peers and revising for clarity of content.
Item Type	Selected Response
Answer Key	C
Depth of Knowledge	2
Estimated Difficulty	Low

Read the passage. Then answer the questions.

Racing Victories

Dear Uncle Mike,

I took your advice and entered my first competitive cross-country ski race this past weekend. The race took place on the Pine Mountain Ski Trails on Saturday morning. Fortunately, the day dawned frosty and clear, with temperatures hovering around 20 degrees Fahrenheit—perfect for ski racing. All around me, powdery blankets of freshly fallen snow covered the ground, turning the landscape into a sparkling winter wonderland. The fluffy snow even trimmed the trees with glittering white garlands.

First, there was a fun race for elementary children. Clusters of people huddled in coats and swathed in scarves stood near the course to watch the event. They stamped their feet to keep them warm as they cheered. When the young racers finally approached the orange flags marking the finish line, shouts of “You can do it!” and “Great job!” rang out through the frosty air.

As I listened to that litany of cheers, my stomach tightened with anticipation and nervous energy. It was time to start waxing my own skis for my upcoming race. I grabbed my skis from the side of the ski lodge and carried them into the waxing room. Putting wax on the bottom of my skis would help me go faster.

Diligently, I began rubbing a layer of blue grip wax onto certain areas on the bottom of my skis. My coach had marked those special areas beneath my feet with some black lines, so I knew exactly where to place the wax. The wax would grip the snow whenever my feet pushed down extra hard on the skis. Without it, I would not be able to propel my body forward as quickly.

Twenty minutes later, I joined the older, competitive group of skiers as they gathered near the starting line. Some laughed and joked with relaxed, loose limbs, while others looked as tense as coiled springs. We all wore timing chips that looped around our ankles on thin wires. The timing chips accurately recorded our time from the starting line to the finish line so that the officials could start the skiers in intervals. Using this method meant there was a comfortable space between the racers on the trail, and everyone was not attempting to simultaneously navigate the same tight turns.

“Number forty-one,” the director announced, and I skied into position in the starting gate. My heart thundered in my ears, and my anxious breaths formed frosty clouds in the air—but I did not notice the cold. Instead, I had my eyes glued to the racer in front of me, who was swiftly vanishing from view.

“Go!” shouted the director, and I launched myself onto the course, attacking the first slope with a flood of adrenaline. Like an automated machine, my arms and ski poles swung up and down in a steady rhythm; my legs and feet pumped, pushing me forward with each stride. In front of me, there was a smooth path through the snow, and I flew down the trail.

Turning into the forest, I swooped down an incline, vigorously pushing myself with the ski poles to gain speed. Then I came face-to-face with Lookout Hill, my first challenge. It was not particularly steep, but the long, strenuous climb demanded both strength and skill.

I tackled the uphill slope with what is called a herringbone technique. To do this, I had to turn the tips of my skis outward and their tails inward to form a V shape. Then, looking upward, I held my body upright, with my weight balanced over my heels. Doggedly, I planted my poles behind me with each step, forcing myself to keep accelerating.

I was halfway up the hill when disaster struck! I was expending so much energy, my fatigued body faltered. Inadvertently, I planted my pole too close to my legs and tripped myself. Like a circus clown, I somersaulted down the hill in a hodgepodge of whirling arms and legs and twirling skis and poles. The icy chill of snow plastered my face.

“Hey, are you all right?” asked a concerned skier coming up behind me.

“I’m fine—keep going,” I responded, having only injured my pride.

Then, with a heavy, deep sigh, I sat in the snow, considering my options—the exhausted part of me wanted to call it quits. However, I shook off the snow, straightened out my skis, and confronted the hill again. This time, I forgot about setting speed records and concentrated on my form.

For the rest of the course, I focused on maintaining a constant, uniform pace. Gently, I flexed my knees and ankles, leaning forward and keeping my weight balanced on each leg—push, glide, push, glide.

I’m gratified to report that I finally crossed the finish line, which for me was a victory. I did not win, of course, but I’ve decided that racing is a valuable experience—I’ve already learned all about pacing myself. Next week, I plan to enter another competition. You’re invited to come and watch. Afterward, I’ll give you your first ski lesson!

See you soon,

Melanie

6. Read the paragraph from the passage. Then, select the **two** phrases from the paragraph that convey an intense mood.

“Number forty-one,” the director announced, and I skied into position in the starting gate. My heart thundered in my ears, and my anxious breaths formed frosty clouds in the air—but I did not notice the cold. Instead, I had my eyes glued to the racer in front of me, who was swiftly vanishing from view.

SC READY ELA Grade 7 Sample Item 6	
Indicator Alignment	AOR.1.2
Indicator Description	Analyze how figurative language impacts mood, tone, and meaning.
Item Type	Highlighting
Answer Key	anxious breaths; eyes glued
Depth of Knowledge	3
Estimated Difficulty	Medium

7. How does the first paragraph contribute to the meaning of the passage?
- A. It establishes a serious tone to the letter.
 - B. It indicates that Melanie struggled in the race.
 - C. It establishes that the setting had pleasant conditions.
 - D. It indicates that Melanie had high expectations for the race.

SC READY ELA Grade 7 Sample Item 7	
Indicator Alignment	AOR.5.1
Indicator Description	Analyze how the structure of a literary text (e.g., narrative, drama, poem) contributes to its meaning.
Item Type	Selected Response
Answer Key	C
Depth of Knowledge	2
Estimated Difficulty	Low

8. Read the sentences from the passage.

The timing chips accurately recorded our time from the starting line to the finish line so that the officials could start the skiers in intervals. Using this method meant there was a comfortable space between the racers on the trail, and everyone was not attempting to simultaneously navigate the same tight turns.

How do the details in the sentences contribute to the meaning of the passage?

- A. They explain the excitement of entering the ski race.
- B. They indicate a strategy for success in the ski race.
- C. They indicate who had an advantage in the ski race.
- D. They explain the organization of the ski race.

SC READY ELA Grade 7 Sample Item 8	
Indicator Alignment	AOR.1.1
Indicator Description	Analyze how lines of dialogue, specific events, or descriptive details develop the plot, reveal aspects of the characters, and/or create meaning.
Item Type	Selected Response
Answer Key	D
Depth of Knowledge	2
Estimated Difficulty	Medium

9. This question has two parts. First, answer part A. Then, answer part B.

Part A

Which pair of sentences identifies two themes expressed in the passage?

- A. It is important to follow wise advice. Nervous energy brings out the best in some people.
- B. It is important to complete a task even when it is difficult. Being in a rush can lead to errors.
- C. Sometimes strategy is more important than skill. Outdoor competitions should be avoided.
- D. Preventing injury is more important than winning. The rules of a competition should be challenged.

Part B

Which detail **best** supports both themes in the answer in part A?

- A. Melanie entered a ski race after her uncle recommended it.
- B. Melanie noticed some of her competitors appeared worried.
- C. Melanie focused on pacing herself after she fell down a hill.
- D. Melanie used a special technique when going up a hill.

SC READY ELA Grade 7 Sample Item 9	
Indicator Alignment	AOR.2.1
Indicator Description	Compare two or more themes within a literary text(s) and how each is developed over the course of a text(s).
Item Type	Evidence-Based Selected Response (EBSR)
Answer Key	B / C
Depth of Knowledge	3
Estimated Difficulty	Medium

10. Read the sentence from the passage.

Like a circus clown, I somersaulted down the hill in a hodgepodge of whirling arms and legs and twirling skis and poles.

How does the figurative language in the sentence contribute to the meaning of the passage?

- A. It emphasizes Melanie's mistake.
- B. It proves how competitive the race was.
- C. It highlights the race director's concern about safety.
- D. It demonstrates how important the race was for Melanie.

SC READY ELA Grade 7 Sample Item 10	
Indicator Alignment	AOR.1.2
Indicator Description	Analyze how figurative language impacts mood, tone, and meaning.
Item Type	Selected Response
Answer Key	A
Depth of Knowledge	3
Estimated Difficulty	Low

11. Which sentence **best** describes how Melanie's perspective about the race shifted?
- A. At first, she wanted to help others, but by the end, she realized she had to rely on help from others.
 - B. At first, she was overly confident in her abilities, but by the end, she lacked confidence.
 - C. At first, she was nervous about performing well, but by the end, she was content to just finish.
 - D. At first, she tried to show off in front of other skiers, but by the end, she became reserved.

SC READY ELA Grade 7 Sample Item 11	
Indicator Alignment	AOR.3.1a
Indicator Description	a. Explain the influence of a narrator(s), including an unreliable narrator(s), and/or narrative shifts in point of view.
Item Type	Selected Response
Answer Key	C
Depth of Knowledge	3
Estimated Difficulty	Low

Read the passages. Then answer the questions.

Letter from Route 66

Dear Jessica,

Look at the postmark on the envelope of this letter. I sent it to you from a town along historic Route 66.

Route 66 is a highway that begins in Chicago, Illinois, and goes all the way to Los Angeles, California. My dad really wanted to take a family trip on this road but said we do not have time to drive along the whole highway. Instead, we are just driving on the California and Arizona parts of the route.

I had honestly never heard of it before this summer. My dad has told me all about it during the trip so far. Many of the facts he has told me are very interesting. I now feel like I'm a walking Google search of Route 66 facts. If you want to know something about it, just ask.

Let me tell you about some of my favorite stops so far. The route goes through the Petrified Forest in Arizona. That is an interesting place. It is a national park where there are huge pieces of stone. Actually, they are fossilized tree trunks! Who knew something like that even existed? Another place I really liked was the town of Oatman, Arizona. It looks like an Old West town and actually has donkeys roaming the streets. In many of the towns along Route 66, the old businesses have closed down. However, Oatman still has a lot of businesses open for customers. There is an old hotel, a museum, and some restaurants.

Even though I have already sent you some pictures and texted you, I cannot wait to tell you all about my adventures in person! I will call you as soon as I get back home.

Sincerely,

Margo

America's Main Street



Route 66 begins in Chicago, Illinois. It stretches 2,400 miles and ends in Los Angeles, California. This famous highway is often called the Main Street of America because the road goes through the main streets of hundreds of small towns. Route 66 does not just connect small towns to each other. It also joins the small towns to big cities. When it first opened, it became an important road for farmers, who used Route 66 to truck their produce to different markets.

Building the Road

The U.S. government started building the famous highway in 1926 and completed it by the late 1930s. There were other highways that also crossed the country at this time; however, Route 66 became the most famous because it was advertised as being the quickest and most scenic way to travel from Chicago, Illinois, to the Pacific Ocean.

Cars in the U.S.A.

Cars were fairly new and quite expensive to many people in the 1920s and 1930s. At that time, most people in small towns still used horses and buggies as their main form of transportation. However, cars soon became cheaper to buy, and more people were able to own them, helping many Americans travel away from their hometowns for the first time.

Route 66 became a great way for people to explore the country. It was also an important route for people who were moving to the West Coast for jobs.

Business Boon

As Route 66 became more popular, businesses were needed to support the travelers along the route. People needed motels to get some rest at night. They needed restaurants for hot meals and gas stations so they could fuel their cars. Big signs and other advertisements let motorists know what services were coming up in the next town.

End of the Road

Route 66 became less popular in the 1960s and 1970s. During this time, the interstate highway system became more popular because it connected many different highways. The interstate highway system made it easier for people to get from place to place. In many areas, these highways went around the old Route 66, eventually leading to a decrease in the number of people who traveled it. Many businesses that used to service the travelers on Route 66 eventually closed.

People can still drive the old Route 66 today. They can see the old roadside attractions and visit some of the remaining businesses that are still open. Many people from around the world travel to the United States just to drive on Route 66. They want to get a feel for what life was like during an exciting time in American history.

12. Read the sentence from “Letter from Route 66.”

I now feel like I’m a walking Google search of Route 66 facts.

What does the figurative language in the sentence indicate about Margo?

- A. She feels very knowledgeable about her subject.
- B. She has spent most of her trip looking up facts online.
- C. She prefers to check the internet before she visits a new place.
- D. She feels capable of providing information for search engines.

SC READY ELA Grade 7 Sample Item 12	
Indicator Alignment	AOR.8.1a
Indicator Description	Interpret an author’s use of figurative, connotative, and technical language in literary, informational, and multimedia texts. When writing: a. interpret figures of speech (e.g., metaphor) in context and analyze how they function within the text.
Item Type	Selected Response
Answer Key	A
Depth of Knowledge	2
Estimated Difficulty	Medium

13. How do the subheadings **best** contribute to the author’s purpose in “America’s Main Street”?
- A. by organizing the text into sections about the topic
 - B. by summarizing the main points of the passage
 - C. by highlighting important messages about the topic
 - D. by defining difficult concepts within the passage

SC READY ELA Grade 7 Sample Item 13	
Indicator Alignment	AOR.5.2
Indicator Description	Explain how the structure of individual text sections (e.g., a particular sentence, paragraph, chapter, or section) and/or text features convey an author’s purpose in an informational text.
Item Type	Selected Response
Answer Key	A
Depth of Knowledge	2
Estimated Difficulty	Medium

14. Drag **three** central ideas from the list and drop them into the correct blank boxes.

Passage	Central Idea	Supporting Details
Letter from Route 66		Towns like Oatman had donkeys wandering the streets.
America's Main Street		People used the route to leave their hometowns and travel.
Both		People traveling the route feel transported to a different time.

Route 66 connects people to history.

Route 66 was important for commerce.


Route 66 has one-of-a-kind experiences.

Route 66 connected cities across the United States.

Route 66 grew less popular due to new highways.

Key:

Passage	Central Idea	Supporting Details
Letter from Route 66	Route 66 has one-of-a-kind experiences.	Towns like Oatman had donkeys wandering the streets.
America's Main Street	Route 66 connected cities across the United States.	People used the route to leave their hometowns and travel.
Both	Route 66 connects people to history.	People traveling the route feel transported to a different time.

Item information on following page 

SC READY ELA Grade 7 Sample Item 14	
Indicator Alignment	AOR.2.2
Indicator Description	Compare two or more central ideas within an informational text(s) and how each is developed over the course of a text.
Item Type	Drag and Drop
Answer Key	experiences; cities; history
Depth of Knowledge	3
Estimated Difficulty	High

15. Which statement **best** summarizes “Letter from Route 66”?
- A. In her letter, Margo lists the landmarks she visits along Route 66, giving a historical account of the significance of each place so that she can share more information with her friend Jessica.
 - B. In her letter to her friend Jessica, Margo describes the states that she has traveled through on Route 66, explaining all the facts she has learned about each state from her father.
 - C. In her letter to her friend Jessica, Margo shares highlights from her Route 66 trip, expressing excitement about her experiences and planning to share more information later.
 - D. In her letter, Margo gives detailed information about the fossilized trees she saw while traveling along Route 66, taking note of the details she believes would be most interesting to her friend Jessica.

SC READY ELA Grade 7 Sample Item 15	
Indicator Alignment	AOR.6.1
Indicator Description	Summarize and/or paraphrase content from grade-level text to enhance comprehension.
Item Type	Selected Response
Answer Key	C
Depth of Knowledge	2
Estimated Difficulty	High

16. Which statement **best** compares the authors' purposes in "Letter from Route 66" and "America's Main Street"?
- A. The purpose of "Letter from Route 66" is to entertain the reader with stories about historical towns, while the purpose of "America's Main Street" is to argue for the preservation of historical landmarks.
 - B. The purpose of "Letter from Route 66" is to persuade the reader to visit Route 66, while the purpose of "America's Main Street" is to inspire the reader with tales of exploration from the past.
 - C. The purpose of "Letter from Route 66" is to describe discoveries made while on a road trip, while the purpose of "America's Main Street" is to criticize modern transportation methods.
 - D. The purpose of "Letter from Route 66" is to share information about traveling on a famous highway, while the purpose of "America's Main Street" is to inform the reader about the history of a highway.

SC READY ELA Grade 7 Sample Item 16	
Indicator Alignment	AOR.4.1
Indicator Description	Determine an author's perspective or purpose in a text and determine how an author uses rhetoric to advance that perspective or purpose.
Item Type	Selected Response
Answer Key	D
Depth of Knowledge	2
Estimated Difficulty	Medium

Read the passage. Then answer the questions.

Biomimicry: Learning from Nature

Plants and animals have been on Earth a long time. By studying nature and how it adapts, we can imitate it to solve many problems we face as humans. This process is called biomimicry.

What Is Biomimicry?

The root *bio* means life or living things. To mimic is to copy. Biomimicry, therefore, means to copy the living. Scientists, business people, and inventors have come up with many creative ways to apply biomimicry.

Velcro

George de Mestral wasn't looking for a new fastening system when he went for a walk with his dog one day. He found one anyway. After he returned home, he removed the burrs from his dog's fur and from his clothing. As he did, he wondered why the burrs clung so well to fur and fabric. He took a close look under a microscope and discovered tiny hooks at the end of each burr needle. The hooks act as grabber tools that allow the burr to fasten itself to clothing or animal fur. He wondered if he could copy the hook-and-attach system employed by the burr, and Velcro was born.

Termites

We don't usually think of termites other than as pests that destroy buildings by eating through wood. Yet one of the most amazing examples of biomimicry comes from studying them. Studying and copying mound termites led to an architectural design that significantly lowered the cost of heating and cooling in the Eastgate Centre, an office complex in Zimbabwe.

The architects of the Eastgate Centre studied the system of chimneys and tunnels used in termite dens and applied what they learned to the building design. The center is made mostly of concrete. Large chimneys bring in cool night air and vent it into the building floors and offices. The floor slabs stay cool throughout the day, reducing the need for normal air-conditioning. The Eastgate Centre uses less energy to heat and cool than traditional buildings. Its owners estimate they saved \$3.5 million because they did not need to air-condition the building using a traditional system.

Spiderwebs and Birds

Studying spiderwebs and birds led to another architectural advancement. Millions of birds are injured or killed each year when they fly into glass windows. The birds can't see the glass and don't recognize it as a barrier. Scientists wondered if they could design a glass product birds could see and, therefore, not fly into. They looked to spiderwebs for inspiration.

Insects easily become entangled in spiderwebs, but birds stay clear of them. Spiderweb strands reflect ultraviolet (UV) light. Bird eyes are sensitive to UV-lighted objects. They see those UV web strands and stay away from them.

Using the spiderweb idea, scientists developed a glass product with a UV-reflective coating containing a crisscross pattern of connected lines. The pattern looks like a giant spiderweb to the birds but is invisible to the human eye. Birds are now much safer in areas with buildings that have installed this new glass.

Other Biomimicry Examples

These are only a few of the many advances attributed to the use of biomimicry. Some others include these examples:

- Leonardo da Vinci designed a flying machine (known as an “ornithopter”) around 1490. It was never built, but he modeled his flying machine after bird flight. The Wright brothers studied pigeons when developing their first aircraft. Researchers at Stanford University estimate that airplanes flying in a V-shape formation like geese would use 15 percent less fuel.
- Studying sharkskin led to the development of a coating for ship hulls, submarines, and aircraft. This coating allows the ships to move through the water or air more efficiently. This advancement reduces fuel costs.
- The Japanese bullet train travels at close to 200 miles per hour. The original train design caused a gigantic sonic boom each time the train emerged from a tunnel. To solve this problem, engineers designed the train with a long, beak-like nose. This nose was influenced by the kingfisher, whose long beak allows it to expertly dive and catch fish without making a big splash in the water.
- Studying whale fins led to the creation of quieter and more efficient wind turbine blades.

Nature is all around. Scientists and inventors have plenty to look at to get inspiration for new products that will help people or businesses do amazing things. Look around at how things work in nature. Who knows? You may be able to develop the next great invention.

17. How does the author **best** support the claim that humans have learned important ideas from nature?
- A. by giving relevant examples of products and inventions people have made from ideas in nature
 - B. by explaining the history of people studying nature to gain ideas for improving products
 - C. by comparing products that are based on ideas in nature with other products that are being sold
 - D. by telling stories of how inventors were inspired by nature for the products they created

SC READY ELA Grade 7 Sample Item 17	
Indicator Alignment	AOR.5.3
Indicator Description	Trace the development of an author’s argument while explaining the types of reasoning and/or the rhetorical appeal of ethos, pathos, or logos in an informational text.
Item Type	Selected Response
Answer Key	A
Depth of Knowledge	2
Estimated Difficulty	High

18. Read the sentence from the passage.

Studying whale fins led to the creation of quieter and more efficient wind turbine blades.

How does the sentence develop a central idea?

- A. It suggests that animals and plants in nature adapt to changes around them.
- B. It indicates that scientists try to find sources of energy in the environment.
- C. It demonstrates that most biomimicry ideas come from sea creatures.
- D. It shows that scientists and inventors look to nature for improving human lives.

SC READY ELA Grade 7 Sample Item 18	
Indicator Alignment	AOR.2.2
Indicator Description	Compare two or more central ideas within an informational text(s) and how each is developed over the course of a text.
Item Type	Selected Response
Answer Key	D
Depth of Knowledge	2
Estimated Difficulty	Medium

19. Which sentence from the passage **best** supports the inference that some people think of biomimicry concepts without intending to do so?
- A. As he did, he wondered why the burrs clung so well to fur and fabric.
 - B. The floor slabs stay cool throughout the day, reducing the need for normal air-conditioning.
 - C. The birds can't see the glass and don't recognize it as a barrier.
 - D. Studying sharkskin led to the development of a coating for ship hulls, submarines, and aircraft.

SC READY ELA Grade 7 Sample Item 19	
Indicator Alignment	AOR.2.2
Indicator Description	Compare two or more central ideas within an informational text(s) and how each is developed over the course of a text.
Item Type	Selected Response
Answer Key	A
Depth of Knowledge	2
Estimated Difficulty	High

20. Which sentence **best** summarizes the section “Termites”?
- A. Architects of Eastgate Centre used a system of chimneys and tunnels based on termite mounds to heat and cool its building efficiently.
 - B. Eastgate Centre is an office complex that is made mostly of concrete because the area has so many termites.
 - C. Even though termites often have a bad reputation for causing destruction by eating wooden structures, the termites were helpful in designing the Eastgate Centre building.
 - D. Architects accidentally discovered how to design Eastgate Centre after studying why termites build tunnels.

SC READY ELA Grade 7 Sample Item 20	
Indicator Alignment	AOR.6.1
Indicator Description	Summarize and/or paraphrase content from grade-level text to enhance comprehension.
Item Type	Selected Response
Answer Key	A
Depth of Knowledge	3
Estimated Difficulty	Medium