Threads & Themes Grade 6, Unit 3, Investigation 1 Summative Assessment (Teacher Edition)

Focus Standards: RI.6.1, RI.6.2, RI.6.3, RI.6.5, RI.6.6, RI.6.8, RI.6.9, L.6.1, L.6.4a, L.6.4b, L.6.4d, L.6.5c

PASSAGE 1

Racing to the Stars — Lexile: 1100L | Informational

(1) In the years following World War II, the United States government turned its attention to a new kind of competition. A government research agency called NACA had spent decades testing aircraft designs and studying the science of flight at its research center in Hampton, Virginia. By the early 1950s, the agency's engineers were already exploring what it would take to send objects, and eventually people, beyond the atmosphere. The work was difficult and expensive, but it was driven by a simple belief: the nation that led in flight would lead the world. At the time, few people outside the agency paid much attention to the calculations and experiments happening behind the walls of the research center.

(2) That belief became urgent on October 4, 1957, when the Soviet Union launched Sputnik, the first human-made object to orbit the Earth. Americans watched the small metal sphere pass overhead and realized that a rival nation had reached space first. Within a year, Congress transformed NACA into a new, more powerful agency called NASA. The goal shifted. It was no longer enough to study flight. The United States needed to put Americans into space and to do it before the Soviet Union could go further.

(3) NASA's first major program, Project Mercury, set out to prove that a human being could survive the dangers of space and return safely. Engineers designed a small capsule, barely large enough for one person, and built heat shields to protect it during the fiery return through the atmosphere. On February 20, 1962, astronaut John Glenn climbed into the Mercury capsule and orbited the Earth three times in under five hours. When he splashed down in the Atlantic Ocean, crowds cheered and newspapers printed his name in bold headlines. Glenn became a national hero overnight.

(4) But President John F. Kennedy had already set a far larger goal. In 1961, he told Congress that the United States should land a person on the moon before the end of the decade. The challenge seemed almost impossible. No rocket in existence was powerful enough to make the journey. The mathematics alone were staggering. Engineers had to calculate the exact path a spacecraft would follow across nearly 240,000 miles of empty space. They had to account for the pull of gravity from both the Earth and the moon and plan for a safe return. NASA spent years designing the Saturn V, a rocket taller than a thirty-story building. It produced enough force to lift more than six million pounds off the ground. Every part had to work perfectly because a single failure at any stage could end the mission or cost the crew their lives. At the height of the program, NASA estimates that nearly 400,000 individuals came together to make the goal of a moon landing a reality.

(5) On July 20, 1969, the Apollo 11 spacecraft reached the moon. Astronauts Neil Armstrong and Buzz Aldrin stepped onto the moon's surface while Michael Collins orbited above in the command module. Armstrong spoke the words that millions of people around the world heard

through their television sets: “One small step for man, one giant leap for mankind.” The landing fulfilled Kennedy’s promise and marked the high point of the American space program. In living rooms and town squares across the country, people who had followed the program for years had witnessed something no generation before them had seen.

(6) The Space Race lasted roughly twelve years, from Sputnik in 1957 to the moon landing in 1969. During that time, NASA grew from a small research agency into one of the largest scientific organizations in the world. Most people came to know the Space Race as a story of bold leaders, brave astronauts, and brilliant engineers. Textbooks celebrated the missions, the machines, and the names of the men who flew them. The photographs that appeared most often showed astronauts in silver suits, rockets lifting off in columns of fire, and mission control rooms filled with rows of men in white shirts. For decades, that version of the Space Race shaped how most Americans understood their country’s journey to the moon.

ITEMS — PASSAGE 1

Item 1 — RI.6.1 | Cite textual evidence | DOK 1 | MC

Based on paragraph 1 of “Racing to the Stars,” what was an original focus of the NACA research agency?

A) testing aircraft designs
B) building powerful rockets
C) sending astronauts into space
D) demonstrating experiments for the public

Item 2 — RI.6.5 | Paragraph function in structure | DOK 2 | MC

How does paragraph 2 contribute to the development of ideas in “Racing to the Stars”?

A) It introduces the competition that changed the space program from a research project into a national mission.
B) It provides background about NACA’s early research on the science of flight.
C) It describes the technical challenges engineers faced when designing spacecraft.
D) It explains why John Glenn became a national hero after his flight.

Item 3 — L.6.4a | Context clues | DOK 2 | MC

Read the sentence from paragraph 3 of “Racing to the Stars.”

> NASA’s first major program, Project Mercury, set out to prove that a human being could survive the dangers of space and return safely.

What is the meaning of the word “survive”?

A) test carefully
B) live through
C) find enjoyable
D) understand fully

Item 4 — RI.6.3 | Development of key event | DOK 3 | TEI – Matching

Match each detail from paragraph 4 of "Racing to the Stars" to the way it helps the reader understand the moon-landing challenge.

Details:

1. No rocket in existence was powerful enough to make the journey.
2. Engineers had to calculate the exact path a spacecraft would follow across nearly 240,000 miles of empty space.
3. NASA estimates that nearly 400,000 individuals came together to make the goal of a moon landing a reality.

Purposes:

A) Shows how modern and complex the equipment had to be.

B) Shows the scale of the project in human workers.

C) Shows how exact the planning had to be for the trip to work.

Item 5 — L.6.5c | Connotation | DOK 2 | MC

Read this sentence from paragraph 6 of "Racing to the Stars."

> Most people came to know the Space Race as a story of bold leaders, brave astronauts, and brilliant engineers.

What do the words "bold," "brave," and "brilliant" in this sentence suggest?

A) The people who participated in the Space Race were admired and celebrated.

B) The people involved in the Space Race were reckless and overconfident.

C) The Space Race required more courage than intelligence.

D) The way the public viewed the Space Race was incorrect.

Item 6 — RI.6.2 | Summary | DOK 2 | MC

Which statement BEST summarizes "Racing to the Stars"?

A) President Kennedy challenged the country to land on the moon, and NASA engineers designed the Saturn V rocket to make the journey possible.

B) The Space Race began when the Soviet Union orbited Earth and ended when astronaut John Glenn did the same in 1962.

C) NASA grew from a small research agency into a large scientific organization by hiring strong leaders and skilled engineers.

D) Based on a desire to lead the world, the United States created NASA and spent twelve years competing to reach the moon, a goal achieved by the Apollo 11 mission in 1969.

Item 7 — RI.6.6 | Author${RS}s purpose | DOK 3 | MC

What is the author's MOST LIKELY purpose in "Racing to the Stars"?

A) to persuade the reader that the United States deserved to win the Space Race

B) to present information about the Space Race and how it was understood by the public

C) to explain why John Glenn and Neil Armstrong became popular figures

D) to describe the scientific discoveries that resulted from the United States space program

PASSAGE 2

Behind the Countdown — Lexile: approx. 1100L | Informational

(1) At NACA's research center in Hampton, Virginia, teams of mathematicians worked in large, open rooms filled with rows of desks and calculating machines. Known as "computers," these workers solved the equations that engineers needed to design safe, reliable aircraft. Many of the computers were women, hired during World War II when the demand for skilled mathematicians had outpaced the available workforce. Among them were teams of Black women who worked in a separate section of the facility under Virginia's laws requiring divided workplaces. The computers' calculations had to be flawless regardless of where they sat, as engineers across the agency depended on the accuracy of their results. A single error could mean a flawed aircraft design, a failed test flight, or worse. The mathematicians understood this, and their work reflected it.

(2) When the Soviet Union launched Sputnik in 1957, NACA became NASA, and the agency's mission expanded from testing aircraft to sending humans into space. For the mathematicians, this meant longer hours and far more complex problems. Every proposed flight required precise calculations: the speed needed to reach orbit, the exact angle for re-entering the atmosphere, and the timing of every engine firing along the way. The cost of a mathematical error was not an incorrect answer on paper. It was the potential loss of a human life.

(3) On February 20, 1962, astronaut John Glenn prepared to become the first American to orbit the Earth. What happened before his flight showed just how much the space program depended on these mathematicians. By then, NASA had begun using electronic computing machines to calculate flight paths. But Glenn was not fully confident in the new technology. Before he agreed to fly, he made a specific request: he wanted Katherine Johnson, a mathematician in the computing division, to check the numbers by hand. Johnson had already earned a reputation for the precision and thoroughness of her work. She ran the calculations and confirmed that the machine's output was correct, and Glenn flew the mission. He orbited Earth three times and returned safely.

(4) As electronic computers became more common at NASA, the role of the human computers shifted. Dorothy Vaughan had supervised the team of Black women mathematicians. She recognized that the new machines would eventually replace calculations done by hand. Rather than wait for that change to push her team aside, Vaughan taught herself FORTRAN, one of the earliest programming languages. She then trained the women she supervised to use it as well. Mary Jackson, another mathematician from the same group, pursued advanced engineering courses and became one of NASA's first Black female engineers. These women did not simply respond to change. They moved ahead of it, turning a moment that could have ended their careers into one that extended them.

(5) These mathematicians shaped every major mission in the space program. Their calculations guided the first crewed flights and the Apollo missions that reached the moon. For the Apollo 11 flight in July 1969, teams of mathematicians checked and rechecked the numbers that would guide the spacecraft from the Earth to the moon's surface and back. The work demanded extreme care because a difference of even a fraction of a degree in a flight path could send a spacecraft thousands of miles off course. When the mission succeeded and the world celebrated, the names most people heard belonged to the astronauts who made the journey, not the mathematicians who made the journey possible.

(6) It took decades for the full picture to emerge. In recent years, books, films, historical research, and even awards have brought the stories of these mathematicians into wider view. Their work had always been part of the Space Race, recorded in logbooks, technical reports, and agency records. What changed was not the history itself but who was included in the telling of it. The same missions that had always been described as triumphs of engineering and courage began to be understood as triumphs of mathematics and teamwork as well.

ITEMS — PASSAGE 2

Item 8 — RI.6.3 | Introduction and elaboration | DOK 2 | MC

In paragraph 1 of "Behind the Countdown," how does the author develop the reader's understanding of the role of human computers?

A) by comparing their work to the work of the engineers they supported

B) by explaining how they were chosen and what educational backgrounds they had

C) by telling where their research center was located and how the laws impacted their workplace

D) by describing their responsibilities and the importance of their calculations

Item 9 — L.6.4a | Context clues| DOK 2 | MC

Read this sentence from paragraph 1 of "Behind the Countdown."

> Many of the computers were women, hired during World War II when the demand for skilled mathematicians had outpaced the available workforce.

What is the meaning of "outpaced"?

A) grown larger than

B) closely matched

C) dropped far below

D) made unnecessary

Item 10 — RI.6.8 | Claims and evidence | DOK 2 | MC

Which claim does paragraph 2 of "Behind the Countdown" support with evidence?

A) The mathematicians were given too little time to complete their calculations accurately.

B) The success of the space program depended on calculations that had to be exact.

C) Electronic computing machines should have been used earlier to reduce the risk of human error.

D) The mathematicians preferred working on space missions to working on aircraft design.

Item 11 — RI.6.1 | Select evidence (multi-select) | DOK 2 | TEI-MS

Select the TWO details from "Behind the Countdown" that BEST support the idea that the mathematicians' work was critical to the safety of space missions.

A) "For the mathematicians, this meant longer hours and far more complex problems." (paragraph 2)

B) "By then, NASA had begun using electronic computing machines to calculate flight paths." (paragraph 3)

C) "Before he agreed to fly, he made a specific request: he wanted Katherine Johnson, a mathematician in the computing division, to check the numbers by hand." (paragraph 3)

D) "Johnson had already earned a reputation for the precision and thoroughness of her work." (paragraph 3)

E) "For the Apollo 11 flight in July 1969, teams of mathematicians checked and rechecked the numbers that would guide the spacecraft from the Earth to the moon's surface and back." (paragraph 5)

Item 12 — L.6.4b | Morphology | DOK 2 | MC

Read this excerpt from paragraph 1 of "Behind the Countdown."

> The computers' calculations had to be flawless regardless of where they sat . . .

Think about the meaning of the suffix -less. Based on this suffix, what is the meaning of the word "regardless"?

A) one who considers
B) without considering
C) the act of considering
D) tending to consider

Item 13 — RI.6.3 | Interactions between individuals and events | DOK 3 | MC

How does the author of "Behind the Countdown" show that Vaughan and Jackson did more than simply adapt to change?

A) by explaining that they eventually received awards and recognition from NASA for their contributions

B) by noting that they worked longer hours than other mathematicians at the agency

C) by describing how each one took action to move into a new role before being forced out of the old one

D) by comparing their career paths to Katherine Johnson's career path at NASA

Item 14 — L.6.1 | Pronoun reference | DOK 2 | MC

Read the sentences about a person discussed in "Behind the Countdown."

> Katherine Johnson came to NACA after years spent as a teacher and as a stay-at-home mother. As part of ____ work at NACA, Johnson performed the calculations for Alan Shepard's space flight.

Which pronoun correctly completes the sentences?

A) her
B) she
C) our
D) hers

Item 15 — RI.6.2 | Central idea | DOK 3 | MC

What central idea does "Behind the Countdown" develop?

A) Electronic computers eventually replaced human mathematicians at NASA because machines were faster and more reliable.

B) Katherine Johnson was the most important mathematician at NASA because John Glenn trusted her calculations over the electronic computers.

C) The mathematicians whose calculations made the space program possible contributed essential work that went largely unrecognized for decades.

D) The Space Race succeeded mainly because NASA hired women who were willing to work long hours on difficult problems.

ITEMS — BOTH PASSAGES

Item 16 — RI.6.9 | Compare presentations of same event | DOK 3 | MC

Both "Racing to the Stars" and "Behind the Countdown" describe John Glenn's 1962 orbit of Earth. How do the two authors present this event differently?

A) "Racing to the Stars" focuses on the danger of Glenn's flight, while "Behind the Countdown" focuses on the flight's scientific results.

B) "Racing to the Stars" celebrates Glenn as the first person in space, while "Behind the Countdown" explains that the Soviet Union reached space first.

C) "Racing to the Stars" questions whether Glenn's flight was worth the risk, while "Behind the Countdown" argues that Glenn knew the flight would be safe.

D) "Racing to the Stars" describes Glenn as a popular hero, while "Behind the Countdown" describes what others did to make flights like his possible.

Item 17 — RI.6.9 | Compare overall presentations | DOK 3 | TEI-MS

Select the TWO statements that BEST describe how the authors of "Racing to the Stars" and "Behind the Countdown" present the Space Race differently.

A) "Racing to the Stars" presents the Space Race as a competition between nations, while "Behind the Countdown" presents it as a story of individual mathematicians and their contributions.

B) "Racing to the Stars" argues the Space Race required too many resources, while "Behind the Countdown" argues it was necessary for scientific progress.

C) "Racing to the Stars" emphasizes the astronauts and engineers who were known to the public, while "Behind the Countdown" emphasizes the mathematicians whose work went unrecognized.

D) "Racing to the Stars" mainly describes events that happened to astronauts in space, while "Behind the Countdown" mainly describes events that happened to mathematicians on the ground.

E) "Racing to the Stars" presents events in a different chronological order than "Behind the Countdown."

SPELLING

Administrator note: Read the word, then read the sentence, then repeat the word clearly, and pause for students to write.

Item 18

aeronautics

The study of **aeronautics** helped engineers at NACA understand how to design better aircraft.

aeronautics

Write the spelling word you heard:

_____

Item 19

prejudice

The workers faced **prejudice** because of unfair opinions that others held about them.

prejudice

Write the spelling word you heard:

_____

Item 20

resistance

Throughout history, people have shown **resistance** by standing up against unjust rules.

resistance

Write the spelling word you heard:

_____

Item 21

satellite

The **satellite** orbited Earth and sent signals back to scientists on the ground.

satellite

Write the spelling word you heard:

_____

Item 22

acceleration

The rocket needed enough **acceleration** to break free from the pull of gravity.

acceleration

Write the spelling word you heard:

_____

ANSWER KEY

#	Answer	Standard	Skill	DOK	Type	Passage
1	**A**	RI.6.1	Cite textual evidence	1	MC	“Racing”
2	**A**	RI.6.5	Paragraph function in structure	2	MC	“Racing”
3	**B**	L.6.4a	Context clues	2	MC	“Racing”
4	1→A 2→C 3→B	RI.6.3	Development of key event	3	TEI – Matching	“Racing”
5	**A**	L.6.5c	Connotation	2	MC	“Racing”
6	**D**	RI.6.2	Summary	2	MC	“Racing”
7	**B**	RI.6.6	Author’s purpose	3	MC	“Racing”
8	**D**	RI.6.3	Introduction and elaboration	2	MC	“Behind”
9	**A**	L.6.4a	Context clues	2	MC	“Behind”
10	**B**	RI.6.8	Claims and evidence	2	MC	“Behind”
11	**C, E**	RI.6.1	Select evidence (multi-select)	2	TEI-MS	“Behind”
12	**B**	L.6.4b	Morphology	2	MC	“Behind”
13	**C**	RI.6.3	Interactions between individuals	3	MC	“Behind”
14	**A**	L.6.1	Pronoun reference chains	2	MC	“Behind”
15	**C**	RI.6.2	Central idea	3	MC	“Behind”
16	**D**	RI.6.9	Compare presentations of same	3	MC	Both
17	**A, C**	RI.6.9	Compare overall presentations	3	TEI-MS	Both
18	**aeronautics**	Spelling	Spelling	1	FITB	—
19	**prejudice**	Spelling	Spelling	1	FITB	—
20	**resistance**	Spelling	Spelling	1	FITB	—
21	**satellite**	Spelling	Spelling	1	FITB	—
22	**acceleration**	Spelling	Spelling	1	FITB	—

RATIONALE APPENDIX

Item 1 — RI.6.1

✔ **Correct: A)** Paragraph 1 states that NACA "spent decades testing aircraft designs."

✘ **Incorrect: B)** Although NACA and then NASA eventually focused on space travel, this was not NACA's original focus.

✘ **Incorrect: C)** Although NACA and then NASA eventually focused on sending astronauts into space, this was not NACA's original focus.

✘ **Incorrect: D)** Paragraph 1 states that "few people outside the agency paid much attention to the calculations and experiments happening behind the walls of the research center," which suggests that these experiments were not done to entertain the public.

Item 2 — RI.6.5

✔ **Correct: A)** Paragraph 2 marks the turning point from quiet research to urgent national competition. The Sputnik launch causes Congress to transform NACA into NASA, shifting the passage from background to action.

✘ **Incorrect: B)** Background about NACA's early research is provided in paragraph 1, not paragraph 2.

✘ **Incorrect: C)** Technical challenges are addressed in paragraph 4, not paragraph 2.

✘ **Incorrect: D)** Glenn's flight and its public reception are described in paragraph 3.

Item 3 — L.6.4a

✘ **Incorrect: A)** While extensive testing was necessary for Project Mercury, this is not the meaning of "survive."

✔ **Correct: B)** The phrase "return safely" provides the context clue to support understanding that "survive" means "live through."

✘ **Incorrect: C)** While astronauts may have enjoyed participating in Project Mercury, this is not the meaning of "survive."

✘ **Incorrect: D)** While a great deal of learning and understanding was necessary for Project Mercury to be successful, this is not the meaning of "survive."

Item 4 — RI.6.3

✔ **Correct: 1→A)** Detail 1 names the rocket and emphasizes that it had to be the most powerful ever flown — that detail develops the equipment side of the challenge.

✔ **Correct: 2→C)** Thousands of engineers across many groups had to coordinate; this detail develops the human and organizational side of the challenge.

✔ **Correct: 3→B)** The math of the flight path had to be exact; this detail develops the precision side of the challenge.

Item 5 — L.6.5c

✔ **Correct: A)** All three words carry strongly positive connotations—they frame the people of the Space Race as heroic and impressive, creating a tone of admiration and celebration that reflects how "most people came to know" the story.

✘ **Incorrect: B)** "Bold," "brave," and "brilliant" carry positive connotations of strength and admiration, not recklessness or overconfidence.

✘ **Incorrect: C)** All three words are equally positive; "brilliant" (intelligence) is given equal weight alongside "bold" and "brave" (courage), not subordinated.

✘ **Incorrect: D)** The author is describing the public's celebratory view, not signaling disagreement. The connotation of the words reflects the public narrative.

Item 6 — RI.6.2

✘ **Incorrect: A)** This is too narrow—it covers only paragraphs 4–5 and omits the Sputnik catalyst, Glenn's orbit, and the broader framing of the public narrative.

✘ **Incorrect: B)** This contains a factual error: Glenn's orbit in 1962 was not the end of the Space Race. The passage states the Space Race lasted until the moon landing in 1969.

✘ **Incorrect: C)** This distorts the passage. "Bold leaders and brilliant engineers" describes the public narrative, not an operational detail about NASA's hiring.

✔ **Correct: D)** This captures the full arc of the passage: the triggering event (Sputnik), the response (NASA's creation and the twelve-year competition), and the outcome (Apollo 11), without adding interpretation.

Item 7 — RI.6.6

✘ **Incorrect: A)** The passage reports what happened without arguing that the U.S. "deserved" to win.

✔ **Correct: B)** The passage builds a chronological account and then, in paragraph 6, steps back to describe the story "as most people came to know it"—emphasizing textbooks, photographs, and the names that were celebrated. The author's purpose is to present this public narrative, including what it highlighted and, implicitly, what it left out.

✘ **Incorrect: C)** While Glenn and Armstrong appear, the author's purpose extends beyond explaining their fame to presenting the broader public narrative.

✘ **Incorrect: D)** The passage does not focus on scientific discoveries. It focuses on the missions, the competition, and how the story was told.

Item 8 — RI.6.3

✘ **Incorrect: A)** While the passage mentions that engineers depended on the computers' results, paragraph 1 does not make a direct comparison of the two groups' work.

✘ **Incorrect: B)** The passage mentions hiring during WWII but does not describe educational backgrounds or a recruitment process.

✘ **Incorrect: C)** The information provided about NACA's location and the segregation laws in place in Virginia at the time speak to the conditions in which the computers worked, but these details do not best help the reader understand the computers' tasks.

✔ **Correct: D)** Paragraph 1 introduces the computers through layered details: the physical setting (large open rooms, desks), their role (solving equations), the workforce context (women hired during WWII, Black women in a separate section), and the stakes (a single error could mean a failed design or worse).

Item 9 — L.6.4d

✔ **Correct: A)** The context indicates that demand for skilled mathematicians was larger than, or "outpaced," the number of people available to work.

✘ **Incorrect: B)** The context suggests that there was a mismatch rather than a match between the number of available workers and the demand for skilled mathematicians.

✘ **Incorrect: C)** The context indicates that demand for skilled mathematicians was larger than, rather than far below, the number of people available to work.

✘ **Incorrect: D)** The context indicates that demand for skilled mathematicians was larger than, or "outpaced," the number of people available to work rather than making these workers unnecessary.

Item 10 — RI.6.8

✘ **Incorrect: A)** The passage states the mathematicians worked longer hours but does not claim they had insufficient time.

✔ **Correct: B)** The paragraph provides specific evidence—speed to reach orbit, angle for re-entry, timing of engine firings—and then states the consequence of error: "the potential loss of a human life." Together, these support the claim that the program depended on exact calculations because lives were at stake.

✘ **Incorrect: C)** Electronic computing machines are not mentioned until paragraph 3. Paragraph 2 does not argue for their use.

✘ **Incorrect: D)** The passage describes the shift to space missions as more demanding work, not as a preference.

Item 11 — RI.6.1

✘ **Incorrect: A)** This describes the increased workload but does not directly connect the mathematicians' work to mission safety.

✘ **Incorrect: B)** This describes a technological shift at NASA, not the importance of human mathematicians to safety.

✔ **Correct: C)** Glenn's insistence that Johnson personally verify the numbers before he would fly demonstrates that the mathematicians' work was considered critical to the astronaut's safety.

✘ **Incorrect: D)** This describes Johnson's reputation but does not directly connect her work to mission safety the way B and D do.

✔ **Correct: E)** This suggests that an error in the mathematicians' calculations could have serious consequences for the crew.

Item 12 — L.6.4b

✘ **Incorrect: A)** The suffix -less means "without" rather than "one who."

✔ **Correct: B)** The suffix -less means "without," so regardless means "without regard" or "without considering."

✘ **Incorrect: C)** The suffix -less means "without" rather than "the act of."

✘ **Incorrect: D)** The suffix -less means "without" rather than "tending to."

Item 13 — RI.6.3

✘ **Incorrect: A)** While the passage briefly mentions awards that have come in later years (in paragraph 6), this detail does not support the assertion that Vaughan and Jackson did more than simply adapt to change.

✘ **Incorrect: B)** Although the text mentions the long hours the mathematicians worked, the passage does not compare Vaughan's and Jackson's hours to those of other mathematicians.

✔ **Correct: C)** The author states that Vaughan "taught herself FORTRAN" and trained her team rather than waiting for change to "push her team aside," and Jackson "pursued advanced engineering courses." The final sentence of paragraph 4 makes the point explicit: "They moved ahead of it."

✘ **Incorrect: D)** The passage does not compare Vaughan's and Jackson's paths to Johnson's. Each is presented separately.

Item 14 — L.6.1

✔ **Correct: A)** The pronoun "her" correctly completes the sentence as indicates possession and conveys the relationship between Johnson and her work.

✘ **Incorrect: B)** "She" could refer to Johnson in a different context, but this personal pronoun does not correctly complete the sentence.

✘ **Incorrect: C)** “Our” indicates possession of more than one person, but this sentence is only referring to Johnson.

✘ **Incorrect: D)** Although the work is Johnson’s, “hers” does not correctly complete this sentence as it is structured.

Item 15 — RI.6.2

✘ **Incorrect: A)** While the passage mentions electronic computers, it does not develop the idea that they fully replaced human mathematicians or were more reliable.

✘ **Incorrect: B)** This overstates Johnson’s role. Johnson is one example in a passage that also develops Vaughan, Jackson, and unnamed teams.

✔ **Correct: C)** The passage traces the mathematicians’ essential work across every major mission (paragraphs 1–5) and then states in paragraph 6 that “it took decades for the full picture to emerge.” The central idea is the gap between the importance of their contributions and the recognition they received.

✘ **Incorrect: D)** The passage does not attribute success mainly to long hours. It emphasizes precision, skill, and initiative—and the central idea is about recognition, not the reason for success.

Item 16 — RI.6.9

✘ **Incorrect: A)** “Racing to the Stars” does not focus on the danger of Glenn’s flight, and “Behind the Countdown” does not discuss scientific results.

✘ **Incorrect: B)** Neither passage claims Glenn was the first person in space. Both acknowledge Sputnik preceded the American space program.

✘ **Incorrect: C)** Neither passage questions whether the flight was worth the risk or makes a national security argument.

✔ **Correct: D)** “Racing to the Stars” describes crowds cheering, newspapers printing Glenn’s name, and Glenn becoming “a national hero overnight” (paragraph 3). “Behind the Countdown” describes Glenn’s request that Katherine Johnson check the numbers by hand (paragraph 3). The two authors present the same event by emphasizing public celebration vs. behind-the-scenes mathematical verification.

Item 17 — RI.6.9

✔ **Correct: A)** “Racing to the Stars” frames the Space Race through national competition (Sputnik, the urgency to beat the Soviet Union, Kennedy’s challenge), while “Behind the Countdown” frames the same events through the mathematicians who performed the essential calculations.

✘ **Incorrect: B)** Neither passage argues the Space Race was a waste of resources.

✔ **Correct: C)** “Racing to the Stars” closes by describing “bold leaders, brave astronauts, and brilliant engineers” and photographs of “men in white shirts.” “Behind the Countdown” focuses on mathematicians who “made the journey possible.”

✘ **Incorrect: D)** Both passages describe events on the ground. “Racing to the Stars” discusses the research center, Saturn V design, and public reactions.

✘ **Incorrect: E)** Both passages follow a roughly chronological order from the 1950s through 1969.

SPELLING ANSWER KEY

Item 18: aeronautics

Common errors: aronautics (missing e), airnautics (phonetic substitution), aeronautiks (k for c)

Item 19: prejudice

Common errors: predjudice (extra d), prejudise (s for c), pregudice (g for j)

Item 20: resistance

Common errors: resistence (e for a), resistanse (s for c), resitance (missing s)

Item 21: satellite

Common errors: satelite (single l), sattelite (double t), satalite (a for first e)

Item 22: acceleration

Common errors: accleration (missing e), aceleration (single c), accelleration (double l)