SAMPLES OF STANDARDS STUDENTS ARE LEARNING THIS NINE WEEKS:

6th Grade ELA

STANDARDS: RI.6.2, RI.6.3, RI.6.5, RI.6.8, W.6.2

Snow Way

by Beth Geiger

Where will you find the world's best spot for stargazing? Many astronomers would say the South Pole. The sky is always clear there, and during the winter it's always dark.

Astronomers flock to the South Pole, as do scientists who study climate, the atmosphere, and polar ice. To accommodate them, the U.S. National Science Foundation (NSF) built an outpost, called the Amundsen-Scott South Pole Station.

Getting people and supplies to the station is not easy. Military transport planes do it when weather permits. Therefore, the NSF is building a "highway" to the pole. The project is one of the most unusual road-construction projects ever undertaken.

Top of the Bottom

The Antarctic highway, called the South Pole Traverse, will not be a typical thoroughfare. "Everyone knows what a road looks like," said Peter West, an NSF spokesman. "What we are working on is not that at all, by any stretch of the imagination."

When completed, the traverse will be a 1,600-kilometer (1,000-mile) path of groomed snow and ice, marked by green flags. It will cross floating ice, gaping *crevasses* (cracks in the ice), deep snow, treacherous mountains, and frozen nothingness.

The traverse is not a typical road, because Antarctica is not a typical continent. Ice—4,570 meters (15,000 feet) thick in some places—covers 98 percent of the continent. Antarctica is the world's coldest desert and receives only about 5 centimeters (2 inches) of precipitation (rain or snow) annually. The thick ice is the buildup of millions of years' worth of snowfall. A few high peaks in the Transantarctic Mountains poke through the ice to form islandsof rock called *nunataks*. East of the Transantarctic chain is the *polar plateau*—the flat top of the bottom of the world. On the plateau lies the Amundsen-Scott Station.

Antarctica's ice doesn't stop at the edge of the continent. Thick slabs of floating, slowly shifting ice, called *ice shelves*, fringe the continent. The biggest, the Ross Ice Shelf, is the size of France and is hundreds of feet thick.

Ice Route

The traverse begins at McMurdo Station, the main U.S. base on the continent. From there, it heads across the Ross Ice Shelf.

Floating, shifting ice might seem like dangerous ground for heavy truck traffic. Why not go straight over the land instead? Traveling across the Ross Ice Shelf keeps the journey
at the relative warmth of sea level for as long as possible. At higher elevations on land, temperatures can get so cold that they cause machinery to malfunction. The shelf also makes for relatively easy cruising. "It's really smooth and flat," said Erin Pettit, a University of Washington geologist who works in Antarctica.

Frigid Summers

Building the traverse has been a daunting job. A hardy five-man crew works only during the Antarctic summer (December to March). Even then, temperatures remain well below freezing. "At first, it is strange for anybody to work in the cold-cold like that," said project manager John Wright. "But you learn to deal."

The first summer, the crew members tackled their most chilling challenge: yawning crevasses in the Ross Ice Shelf that can swallow a tractor in the blink of a frozen eyelash. The crevasses, which can be 30 meters (100 feet) deep, might not be so dangerous if they were visible. But most of them lurk under covers of snow called *snow bridges*. Many people have fallen through snow bridges to icy deaths.

The nastiest crevasses on the route are in a *shear zone* about 48 kilometers (30 miles) from McMurdo. There, ice within the shelf moves at different rates, stretching and cracking into a maze of crevasses. To cross that area safely, the team members probed the ice ahead with radar. Whenever they found a crevasse, they used a bulldozer to fill it in with snow. Then they inched across.

During the last construction phase, the crew worked for 66 straight days. After filling crevasses in the shear zone, the team bogged[1] down in a 260-kilometer (160-mile) stretch of deep snow on the shelf. The biggest surprise, remembers Wright, was any *good* day. "We had two last year," he said.

[1]**bogged:** to sink or get stuck

How does the author show that the Ross Ice Shelf is dangerous?

A. by explaining that some crevasses are hidden
B. by giving the locations of the worst crevasses
C. by telling about a truck getting stuck in the snow
D. by describing how the crew used bulldozers

RI.6.3:
Analyze in detail how a key individual, event, or idea is introduced, illustrated, and elaborated in a text (e.gthrough examples or anecdotes).

Rationale: CHOICE "A" IS CORRECT:
Students who choose "A" show an understanding of being able to track the development of the danger of the Ross Ice Shelf across several details throughout the text. The author first suggests that the Ross Ice Shelf is possibly dangerous for heavy trucks due to the floating, shifting ice, but not as much of a risk factor to the trucks as the higher elevations on land. Later in the passage, the extent of the potential danger is portrayed as crew members' "most chilling challenge: yawning crevasses that can swallow a tractor" quickly. The author goes on to explain that the crevasses "might not be so dangerous if they were visible." The students must analyze this evidence to determine

Which sentence would be **most** important to include in a summary of the article?

A. Many scientists perform research at the South Pole because the skies are in the winter, always dark, making the South Pole ideal for stargazing.
B. Scientists set up a station at the South Pole for studying the climate, stars, atmosphere and polar ice.
C. Building a road to a scientific station at the South Pole was a difficult task with many dangers, like cold weather and deep crevasses.
D. Construction of a road for travel to the South Pole could only be done in the summer months.

RI.6.2:
Determine a central idea of a text and how it is conveyed through particular details; provide a summary of the text distinct from personal opinions or judgments.
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Rationale: CHOICE C IS CORRECT:
Students who choose "C" show an understanding of the passage as a whole, but also how summaries are constructed. This statement synthesizes important information that is developed across the text. It includes the location (the South Pole), the basic task (building a road), the complications (difficulty and danger), and begins to elaborate them (cold weather and deep crevasses). A synthetic sentence like this would be essential for summarizing this text.

Read this sentence from lines 12 and 13.

When completed, the traverse will be a 1,600-kilometer (1,000-mile) path of groomed snow and ice, marked by green flags.

Which claim from the article is **best** supported by this sentence?

A. "Astronomers flock to the South Pole..." (line 3)
B. "The project is one of the most unusual road-construction projects ever undertaken." (lines 7 and 8)
C. "Antarctica's ice doesn't stop at the edge of the continent." (line 29)
D. "…temperatures can get so cold that they cause machinery to malfunction." (line 37)

RI.6.8:
Trace and evaluate the argument and specific claims in a text, distinguishing claims that are supported by reasons and evidence from claims that are not.
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Rationale: CHOICE B IS CORRECT:
Students who choose "B" show an understanding of the relationship between one of the major claims the text makes and a key piece of evidence used to support it. Much of the text is devoted to developing the claim expressed in "B" regarding the unique nature of the project. The sentence from lines 12 and 13 succinctly and powerfully expresses features that make this important "thoroughfare" "unusual." Most roads requiring the coordinated and sustained effort to build like this one are not "groomed snow and ice, marked by green flags."

Why are lines 9 through 14 important to the article?

A. They establish the danger involved in the project.
B. They explain how the project will be completed.
C. They introduce the unique nature of the project.
D. They provide a brief history of the project.

RI.6.5:
Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.
Rationale: CHOICE "C" IS CORRECT:
Students who choose "C" recognize that this section describes how the project is unlike most others: Conditions
are extreme and the window of time for working is only a few months. In answering correctly, they demonstrate
an understanding that the author establishes the unique nature of the "thoroughfare" to set the stage for ideas discussed throughout the text.

W.6.2 Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content

DIRECTIONS: Explain the rules of a game that you enjoy so that someone unfamiliar with the game will understand how to play. If special equipment is needed, be sure to include that.