



acadience® reading 7–8

Silent Reading

Grade 8 | Benchmark 3

DO NOT WRITE ON THIS PACKET OR OPEN THE BOOKLET
PLEASE WAIT AND LISTEN FOR DIRECTIONS

Sample: Multiple Choice Question

1. Most weeks of the school year, the first day of the school week is:
- A) Friday
 - B) Monday
 - C) Wednesday
 - D) Sunday

Silent Reading

Student Response Sheet

Sample: (A) (B) (C) (D)

Passage 1	Passage 2	Passage 3
1. (A) (B) (C) (D)	1. (A) (B) (C) (D)	1. (A) (B) (C) (D)
2. (A) (B) (C) (D)	2. (A) (B) (C) (D)	2. (A) (B) (C) (D)
3. (A) (B) (C) (D)	3. (A) (B) (C) (D)	3. (A) (B) (C) (D)
4. (A) (B) (C) (D)	4. (A) (B) (C) (D)	4. (A) (B) (C) (D)

STOP

Canyon Dreams

► When Nina’s parents shared their plans for a Grand Canyon rafting trip, Nina was indifferent. Several months later, as she stood ankle-deep in the Colorado River, she marveled at the sights before her. Nina had stepped into a very unfamiliar place and had become mesmerized. The gold coins of the sun’s reflected light dotted the water’s surface. Farther up the riverbank, a blue heron balanced on one leg, and two hawks circled lazily against the morning sky. Gazing at the red cliffs towering several thousand feet above the river, Nina perceived her smallness against the surrounding vastness. This sudden awareness filled her with happiness, and she cheered aloud in delight.

Seated in a sturdy rubber raft on the winding Colorado, Nina fell under the spell of the Grand Canyon’s beauty and the river guides’ cheerful confidence. The ringing notes of canyon wrens echoed off the lofty rock walls. The guides directed the group’s attention to hidden waterfalls and unexplored caves along the grooved canyon face and told stories of earlier adventurers who

had explored this region.

When the group stopped for sandwiches and beverages on the riverbank, Nina memorized the beautiful scenes before her. After lunch, the group took a vigorous hike up the canyon side. On the excursion, Nina took in the sights and smells of the scenery and was amazed by the wide variety of animal and plant life. Nina was filled with questions about what she saw. Later, while the guides paddled down the river, Nina saw a bighorn sheep atop a far-away butte.

Overall, Nina thought it had been a wonderful day. That night, she lay inside her sleeping bag on the sandy ground under a dazzling canopy of stars. Listening to the murmur of the river and whisper of the wind, she drifted contentedly to sleep. Several times during the night, she opened her eyes for a moment to follow the movement of the stars and then quickly returned to her adventurous dreams. By the end of the trip, Nina promised herself that spending more time in the American Southwest must be part of her future.

Comprehension Questions: Canyon Dreams

Mark the correct answer on your answer sheet. DO NOT write on this form.

1. When you aren't particularly interested in something, you are:
 - A) bored.
 - B) unremarkable.
 - C) indifferent.
 - D) unfamiliar.
2. To *perceive* something means to:
 - A) worry about it.
 - B) think about it at length.
 - C) be surprised by it.
 - D) become aware of it.
3. When something is *vast*, it means it is:
 - A) large.
 - B) mysterious.
 - C) empty.
 - D) beautiful.
4. Where did Nina go rafting?
 - A) on the Canyon River
 - B) on a lake in Colorado
 - C) on a lake in the Grand Canyon
 - D) on the Colorado River
5. Why did Nina cheer aloud in delight while gazing at the red cliffs?
 - A) She was amazed by the wide variety of animal and plant life in the canyon.
 - B) Her sudden awareness at being so small in such a large place made her happy.
 - C) She realized that she had never before seen cliffs that were so large or colorful.
 - D) She was mesmerized by the murmur of the river water and the whisper of the wind.
6. What kinds of birds did Nina see during the rafting trip?
 - A) a heron and two hawks
 - B) some wrens and a couple of eagles
 - C) a vulture and two ducks
 - D) a falcon and some waterfowl
7. What did the river guides show the group?
 - A) hidden waterfalls and unexplored caves
 - B) a bighorn sheep atop a far-away butte
 - C) ancient paintings on the lofty rock walls
 - D) the dazzling canopy of stars
8. The passage says that *gold coins of the sun's reflected light dot the water's surface*. This means that:
 - A) the sun is making the water look like a solid sheet of shiny gold.
 - B) you can see that the water is yellow, like a gold coin or the sun.
 - C) you can see the sun's rays bouncing off of the water.
 - D) the rays of the sun make it so you can see the bottom of the river.
9. What would be another good title for this passage?
 - A) Rafting Lessons for Novices
 - B) Birdwatching in the American Southwest
 - C) Making the Best of a Boring Vacation
 - D) An Unexpected Adventure
10. If Nina's parents planned another vacation involving river rafting, what would her response probably be?
 - A) She'd suggest hiking instead, since you can see more plant and animal life.
 - B) She wouldn't be interested at first, but eventually she'd warm up to it.
 - C) She would rather do something else, since she had already tried rafting.
 - D) She would probably be enthusiastic right from the start.

The Power of Dimples

► The dimples covering a golf ball give it a unique appearance, but they also enhance the ball's performance. The first golf balls were smooth, but golfers later discovered that their game improved as the balls aged and became scraped and rough. Textured balls began replacing smooth ones and over the years the dimpled design that is popular today became standard.

Engineers understood that friction, or the air resistance encountered by a moving object, reduces the speed of a moving object, so they thought the smoothest surfaces would create the least drag. Mysteriously, in the case of golf balls, the opposite appeared to be happening.

Engineers discovered that friction is not the only source of drag on a speeding ball. Airflow also creates drag. As air currents flow over a smooth ball's surface, they are considered attached. When the air currents reach the sphere's widest part, they pull away from the smooth surface and on the back side of the sphere leave a separation space filled with slower air. The air in this separation space ripples and vibrates as faster

air currents rush past and this sluggish tail of slow air behind the ball causes a significant amount of drag.

When a ball with a dimpled surface slices through the air, the air cannot move smoothly past it. The golf ball's bumpy surface disturbs the flow of air and generates turbulence, or instability in the air. The high energy of turbulent air keeps it attached to the sphere's surface longer, curving around onto the backside of the sphere before pulling away. When the air finally separates from the ball's surface, the separation space is smaller. Since there is only a narrow tail of sluggish air trailing a dimpled ball, there is much less drag than there is on a smooth one.

Today engineers are using complex models to understand more about the power of dimples. By suspending computerized models of balls in a wind tunnel, they can calculate the amount of drag that occurs at every dimple. Their studies could reveal a new dimple pattern that could perfect the flight of a golf ball. They could even reveal important information about the laws of physics.

Comprehension Questions: The Power of Dimples

Mark the correct answer on your answer sheet. DO NOT write on this form.

1. The resistance encountered by a moving object is called:
 - A) dissension.
 - B) friction.
 - C) abrasion.
 - D) opposition.
2. The *drag* on a speeding golf ball refers to:
 - A) how much force there is propelling the golf ball.
 - B) the degree of resistance on the golf ball.
 - C) a calculation of how far the golf ball will go.
 - D) the speed of the golf ball as it flies through the air.
3. Instability in the air is known as:
 - A) fluctuation.
 - B) turbulence.
 - C) entropy.
 - D) cadence.
4. What kind of surface did the first golf balls have?
 - A) dimpled
 - B) smooth
 - C) textured
 - D) scraped
5. Today, all golf balls are:
 - A) scraped and rough.
 - B) smooth.
 - C) dimpled.
 - D) orange for safety.
6. A golf ball with a smoother surface:
 - A) creates the same amount of drag as one with a dimpled surface.
 - B) flies farther than one with a dimpled surface.
 - C) creates less drag than one with a dimpled surface.
 - D) creates more drag than one with a dimpled surface.
7. What is one thing that engineers are doing to understand more about the power of dimples?
 - A) They are suspending computerized models of golf balls in wind tunnels.
 - B) They are experimenting with different sizes and shapes of golf balls.
 - C) They are watching golfers hit balls learn about golf ball performance.
 - D) They are attaching tiny electrodes to golf balls in order to study patterns of drag.
8. What happens when a moving object encounters friction?
 - A) The object speeds up.
 - B) The object moves at the same speed.
 - C) The object slows down.
 - D) The surface becomes bumpy.
9. What is the main idea of this passage?
 - A) Dimples on the surface of a golf ball make it not fly as far.
 - B) Dimples on the surface of a golf ball result in greater friction as it flies through the air.
 - C) Dimples on the surface of a golf ball cause it to fly farther.
 - D) As a golf ball ages, its surface becomes dimpled and it performs better.
10. We can predict from the passage that, in the future, engineers will:
 - A) experiment with dimples on other shapes of balls to enhance their performance.
 - B) apply knowledge about the effect of dimples on golf balls to other sports.
 - C) find ways to further increase friction on the surface of golf balls.
 - D) find ways to further reduce drag on the surface of golf balls.

The Importance of the Northwest Ordinances

► In the 1783 Treaty of Paris, which ended the American Revolution, the United States gained the Northwest Territory from Britain. This territory was bordered by the Ohio River, the Great Lakes, the Mississippi River, and Pennsylvania. The United States then had to decide how to include the Northwest Territory in its borders. After much debate, Congress passed a series of ordinances, or laws, that established how the United States would admit new states and expand its borders.

The Ordinance of 1784 stated that the Northwest Territory would be divided into districts, and each district would be able to govern itself. When a district's population reached 20,000, it could send one representative to Congress. When the district gained enough population so that it had an equal number of people to the least populated state, it could apply for statehood. The next year, the Ordinance of 1785 was added. This Ordinance stated that the land in the Northwest Territory would be subdivided into townships. Each township would need to be laid out to include a school and plots that could be purchased by individuals. Anyone wishing to purchase a plot of land had to buy at least 640 acres and pay at

least one dollar per acre.

Two years later, Congress enacted the Northwest Ordinance of 1787, the most critical of the three laws. The principles, or rules, set out in this ordinance would govern future American growth all the way to the Pacific Ocean. Under this act, three to five new states could be formed from the Northwest Territory. The new states would be able to join the Union on equal footing with the older states. When the population of a given territory reached 60,000, it could draft a state constitution and request to be admitted to the Union as a new state. The ordinance also promised important rights to citizens in the new states, including freedom of religion and access to public education. In addition, slavery was outlawed in all new states to be formed, and Native Americans living on the lands were to be treated with respect.

Soon, the Northwest Territory became the new states of Ohio, Illinois, Indiana, Michigan, and Wisconsin. Today, the 50 states are united in part because of the principles set out in the Northwest Ordinances. No matter how big or small, each state joined the Union as an equal.

Comprehension Questions: The Importance of the Northwest Ordinances

Mark the correct answer on your answer sheet. DO NOT write on this form.

1. The treaty that ended the American Revolution is called the:
 - A) Northwest Ordinance.
 - B) Treaty of Paris.
 - C) British Ordinance of 1784.
 - D) Territory Treaty.
2. According the passage, a subdivision of land is a:
 - A) border-union.
 - B) territory.
 - C) township.
 - D) district.
3. The word *statehood* refers to the status of being:
 - A) recognized as a state of the United States.
 - B) able to govern a district's population.
 - C) granted application for new state processing.
 - D) able to draft a new state's constitution.
4. What did the U.S. gain after the American Revolution?
 - A) the Northwest Territory
 - B) the Northwest Ordinance
 - C) the Great Lakes Territory
 - D) the State of Michigan
5. Why was the Northwest Ordinance of 1787 considered the most critical of the three ordinances?
 - A) It resolved issues of fair and equal representation.
 - B) It had stricter regulations than the other two.
 - C) It had the most influence on U.S. history.
 - D) It required townships to build schoolhouses.
6. Under the Ordinance of 1784, a district was able to apply for statehood when:
 - A) the population was equal to the least populated state.
 - B) the population reached 20,000 people .
 - C) each township in the district reached 20,000 people.
 - D) the population reached 60,000 people.
7. In order to buy a plot of land in a township, a person had to pay:
 - A) a fee to the new district.
 - B) 640 dollars an acre.
 - C) 640 dollars for the plot.
 - D) one dollar an acre.
8. According to this passage, what was the effect of the American Revolution on the settlement of the Northwest Territory?
 - A) It required quick action by Congress to add Ohio, Illinois, and Indiana to the Union.
 - B) It provided Congress with a reason to seize even more land from Britain.
 - C) It motivated Congress to quickly pass the highly influential Ordinance of 1787.
 - D) It motivated Congress to encourage and establish rules for expansion.
9. What is the main idea of this passage?
 - A) After gaining the Northwest Territory, Congress passed laws to regulate new settlements and add new states to the Union.
 - B) After winning independence from Britain, the U.S. immediately established Ohio, Illinois, Indiana, Michigan, and Wisconsin as states.
 - C) After gaining the Northwest Territory, the U.S. faced the daunting task of how to encourage citizens to buy township plots.
 - D) After gaining new states from Britain, the U.S. ended up passing a series of ordinances in order to protect Native Americans living there.
10. We can predict from this passage that after 1787, as American boundaries continued to expand west:
 - A) newly added states were confirmed based solely on population.
 - B) new territories quickly drafted their own district constitutions.
 - C) the legality of slavery was decided on a state-by-state basis.
 - D) newly added states had a population of at least 60,000 people.