
 Reading and Writing (SAT/PSAT)

Petrified wood (*Araucarioxylon arizonicum*) technically does not contain plant material; instead, such “wood” is a type of fossil found in sedimentary rocks and near volcanic deposits. When a tree dies and is quickly buried by mud, silt, or volcanic ash, it does not receive oxygen that allows for its decomposition. As water or mud with a variety of minerals seeps through the wood, _____

The common goldfish (*Carassius auratus*) is a freshwater fish originally cultivated in Eastern Asia nearly 1,000 years ago—a breed that has proliferated, with problematic results, in much more recent times. Goldfish varieties including the Fantail, Comet, and Black Telescope can now be purchased in almost any pet store. Because some owners become weary of tending to goldfish, these animals have been _____

Players on the Harlem Globetrotters, a famous “exhibition” basketball team, do not in fact play competitive games: rather, Globetrotter games are elaborately choreographed displays of basketball tricks that pit the Globetrotters against the Washington Generals. In a typical game, the Globetrotters, in a flurry of stunts that range from humorous to awe-inspiring, emerge victorious. Potential Globetrotters are by no means basketball amateurs, and prominent members of this entertainment-based squad have later flourished in competitive basketball. Lynette Woodward is but one example. An Olympic gold medalist in basketball, she was named the first female Globetrotter in 1985 and later played in the WNBA for two seasons.

1. Which choice most logically completes the text? [*Moderate*]

- A. the wood hardens and gradually regains its ability to absorb oxygen.
- B. the tree breaks down and the wood itself is replaced with silica and other minerals.
- C. silica and similar minerals already in the tree soften so that they meld together with the wood.
- D. the tree’s shape is stabilized by a high-pressure chemical reaction that toughens the wood fiber.

2. Which choice most logically completes the text? [*Easy*]

- A. relocated to bodies of water that have low species diversity.
- B. returned to their original Eastern Asian habitats for the purposes of further study.
- C. raised in a variety of lake habitats without damaging effects.
- D. released into lakes in a manner that disrupts the ecology of water systems.

3. Which choice best describes the overall structure of the text? [*Moderate*]

- A. The text mentions notable figures in the history of the Globetrotters, then argues that these figures followed different paths to success.
- B. The text clarifies a few points about the Harlem Globetrotters, then focuses on the career of one noteworthy athlete.
- C. The text describes a typical Harlem Globetrotters game, then explains why some spectators may find a game of this sort unsatisfying.
- D. The text pinpoints the earliest Globetrotters events, then contrasts Globetrotters games with other forms of basketball.

While researching a topic, a student has taken the following notes:

- Rice and beans offer an example of complementary amino acid pairing.
- Beans are high in the amino acid lysine.
- Rice is low in lysine.
- Vegetables and rice form another complementary pairing involving the amino acid methionine.
- Rice is high in methionine.
- Vegetables are low in methionine.

While researching a topic, a student has taken the following notes:

- Biologist Jessica Kendall-Barr investigated the sleep cycles of elephant seals.
- As part of a study begun in 2017, Kendall-Barr used a device known as an electroencephalogram (EEG) to monitor the brain activity of the seals.
- One set of EEG readings revealed that the seals sleep for roughly two hours per day when at sea.
- Another set of EEG readings revealed that the seals sleep for roughly ten hours per day when on land.

The Sahara Desert, one of the harshest environments on Earth, has been extensively studied using satellite imaging to uncover its hidden features and resources. Recent advancements in satellite technology have enabled researchers to map subsurface aquifers, revealing vast reserves of fossil water beneath the desert. For example, the North-Western Sahara Aquifer System (SASS), spanning Algeria, Libya, and Tunisia, is one of the largest aquifer systems in the world. Satellite data has also been used to identify ancient riverbeds and lakes, which indicate that the Sahara was once a lush and habitable region thousands of years ago. These findings provide valuable insights into both the region's history and its potential for supporting human activity today.

4. The student wants to explain the amino acid levels in rice. Which choice most effectively uses relevant information from the notes to accomplish this goal?

[Easy]

- A. Dietary staples such as rice, beans, and vegetables can be paired based on amino acid composition.
- B. Lysine and methionine are amino acids that can be found in common foods.
- C. In amino acid composition, rice is relatively low in lysine and relatively high in methionine.
- D. Beans have low lysine levels, while vegetables have low levels of methionine.

5. The student wants to outline Kendall-Barr's findings on elephant seal sleep patterns. Which choice most effectively uses relevant information from the notes to accomplish this goal? [Easy]

- A. In a 2017 study, Kendall-Barr monitored elephant seals both at sea and on land.
- B. Kendall-Barr determined that elephant seals sleep for approximately two hours when water-bound and ten hours when land-bound.
- C. To study elephant seal sleep patterns, Kendall-Barr resorted to an electroencephalogram (EEG) device
- D. EEG readings reveal brain activity and can be useful in tracking sleep patterns

6. Which discovery from satellite imaging would most directly support the conclusion that the Sahara was once a lush and habitable region? [Hard]

- A. The identification of wind-shaped sand dunes across vast stretches of the desert.
- B. The detection of fossil water reserves in subsurface aquifers beneath the desert.
- C. The discovery of ancient riverbeds and lake basins beneath the desert sands.
- D. The observation of modern agricultural plots using central-pivot irrigation systems.

The Song of Roland is one of the oldest surviving works of French literature and a prime example of the *chanson de geste* genre, which celebrates heroic deeds. Composed between 1040 and 1115 CE, the poem is based on the historical Battle of Roncevaux Pass in 778 CE, where Charlemagne's rear guard was ambushed. However, the poem transforms this minor skirmish into a grand conflict between Christian Franks and Muslim Saracens, reflecting the religious and political tensions of medieval Europe. Scholars debate its exact date of composition, with some suggesting it was influenced by the First Crusade (1096–1099), as certain terms in the text align with crusading rhetoric.

Ichthyosaurs were marine reptiles that thrived from the Early Triassic to the Late Cretaceous period, roughly 250 million to 90 million years ago. Unlike dinosaurs, ichthyosaurs were specialized aquatic reptiles that evolved from land-dwelling ancestors and returned to the sea. Recent research by paleontologists, who studied oxygen isotope ratios and soft tissue preservation in ichthyosaur fossils, provides evidence that these creatures were likely endothermic (warm-blooded) or homeothermic (maintaining constant body temperatures higher than the surrounding environment). This thermoregulatory ability would have allowed ichthyosaurs to inhabit a wide range of marine environments, from tropical equatorial waters to colder regions at higher latitudes. Their dolphin-like body shape, powerful tail flukes, and evidence of live birth adaptations further support that ichthyosaurs were highly specialized for their marine lifestyle, with metabolic adaptations that helped them maintain consistent body temperatures despite varying ocean conditions.

After a series of setbacks in his early years, Thomas Edison was told he might never succeed. Overcoming all obstacles, Edison _____ . With his invention of the electric light bulb, he revolutionized the way people lived and worked, ultimately becoming the first person to hold over 1,000 patents for his groundbreaking ideas.

7. Which choice best summarizes the main idea of the passage? [Hard]

- A. The *Song of Roland* is an accurate historical account of the Battle of Roncevaux Pass and its aftermath.
- B. The *Song of Roland* reflects medieval Europe's religious and political tensions while transforming a historical event into a heroic epic.
- C. The *Song of Roland* was written during Charlemagne's reign to celebrate his military victories over Muslim forces.
- D. The *Song of Roland* was composed to provide a detailed account of the First Crusade and its impact on medieval Europe.

8. Scientists studying ichthyosaur thermoregulation argue that these marine reptiles had metabolic adaptations that allowed them to regulate their body temperature, supporting the hypothesis that they were either endothermic or homeothermic. Which discovery, if true, would most directly support their argument? [Hard]

- A. Fossil evidence shows that ichthyosaurs had a countercurrent heat exchange system in their bodies, similar to that found in modern warm-blooded marine mammals.
- B. The discovery of ichthyosaur fossils in terrestrial deposits suggests that they may have spent some time on land.
- C. The finding that ichthyosaurs had a highly efficient respiratory system, suggest that it allowed them to extract oxygen from the water more efficiently.
- D. The identification of a new species of ichthyosaur suggests a body shape more similar to that of terrestrial reptiles.

9. Which choice completes the text so that it conforms to the conventions of Standard English? [Moderate]

- A. didn't just succeed, he illuminated the world
- B. didn't just succeed, but also illuminating the world
- C. didn't just succeed—he illuminated the world
- D. didn't just succeed; he, having illuminated the world

Answer Sheet

1. B	2. D	3. B	4. C	5. B	6. C	7. B	8. A	9. C
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