

Using Context to Understand Terms

DIRECTIONS Read each passage carefully, and then answer the questions. Use the steps in **Thinking It Through** on page 217.

PASSAGE A

GUIDED PRACTICE

Humpback Whales

Researchers continue to study the behavior of humpback whales. But what do we really know about these gentle giants?

The name “humpback” was given to this whale species because of the hump on its dorsal fin. The genus name, *Megaptera*, meaning “great-winged,” refers to the humpback’s flippers, which are the longest of any of the whale species.

Humpback whales are also baleen whales because they lack teeth. This type of whale feeds by swimming with its mouth open through schools of small fish or krill and then filtering the water out through the fringed plates of baleen on each side of its jaw.

Researchers have made many discoveries about humpback whales by studying individual whales. They identify whales by noting differences in their flukes, which are as individual as a nation’s flag. When a humpback whale breaches, then returns underwater, the distinctive black-and-white pattern on its waving tail appears.

Researchers have also made interesting observations about female whales’ behavior after calving. They have found that after giving birth, a mother lifts her newborn to the surface of the water for the calf’s first breath of air. The calf, whose lungs have yet to be inflated, would sink without its mother’s assistance.

ANALYZE

From this passage, you can guess that a whale’s dorsal fin is found on its —

- A back
- B stomach
- C tail
- D flipper

This item asks you to determine the meaning of the word from its context.

- A *is the best answer: The sentence says that the name “humpback” was given to this species of whales because of the hump on its dorsal fin, which is located on its back.*
- B *is incorrect: The context of the sentence does not support this answer.*
- C *is incorrect: The context of the sentence does not support this answer.*
- D *is incorrect: The context of the sentence does not support this answer.*

for **TEST-TAKING MINI-LESSON** **page 217** *continued*

- 1 In this passage, the word genus is a(n) —
- A intelligence classification
 - B medical term
 - C scientific classification
 - D scientific theory
- 2 From the passage, you can guess that flukes are —
- F chance occurrences
 - G parts of the tail
 - H whale songs
 - J communicating behaviors
- 3 You can tell from the passage that when a whale breaches, it is —
- A singing
 - B eating
 - C diving below the surface of the water
 - D breaking the surface of the water
- 4 In this passage, the word calving refers to —
- F whale birth
 - G whale breathing
 - H whale research
 - J whale identification

PASSAGE B**INDEPENDENT PRACTICE**

The Galileo Space Probe

The *Galileo space probe* has been a great source of information about space and space exploration. Space probes are sent into outer space to collect data on the solar system. At first, *Galileo* was intended to observe only one planet—Jupiter—and its moons.

Galileo was initially supposed to be launched from a shuttle, with a powerful rocket boosting the probe into orbit. However, plans changed after the explosion of the space shuttle *Challenger*. The original trajectory of *Galileo* had to be changed because the booster rocket would no longer be carried by a shuttle. *Galileo's* new travel path relied on gravity assists from Earth and Venus to propel *Galileo* toward Jupiter.

Then, after *Galileo* was already in orbit, its strongest antenna failed to open, and engineers

had to rethink their plans again. They sensitized a system of orbiting deep-space communication satellites, and relied on data compression and a smaller antenna onboard *Galileo* so that other, less powerful satellites could still relay computerized images back to Earth.

During its journey, *Galileo* observed Venus, Earth, and the asteroids Gaspra and Ida. It recorded new information about Jupiter's atmosphere and also witnessed a surprising cosmic event—a comet's collision with Jupiter.

Galileo's instruments also revealed that one of Jupiter's moons, Ganymede, had its own magnetosphere. This is the first moon in the solar system that scientists have found to have its own magnetic field.



for **TEST-TAKING MINI-LESSON** **page 217** *continued*

- 5** In this passage, the term space probe refers to —
- A** an investigation into solar flares
 - B** an exploration of a planet's core
 - C** equipment used to explore outer space
 - D** instruments used to analyze the space shuttle
- 6** From the passage, you can tell that the word trajectory refers to the space probe's —
- F** path
 - G** cost
 - H** equipment
 - J** discoveries
- 7** In this passage, the term gravity assists means —
- A** forces that helped the space probe on its way
 - B** obstacles in the space probe's path
 - C** forces that pulled the space probe off course
 - D** obstacles stemming from the space probe's construction
- 8** In this passage, the words data compression refer to —
- F** making the data more sensitive
 - G** enhancing data to get more detail
 - H** making data more compact to ease transmission
 - J** flattening data to make it easier to see
- 9** In this passage, the word cosmic refers to —
- A** Earth
 - B** outer space
 - C** scientific research
 - D** Jupiter's moons
- 10** According to the passage, having a magnetosphere means having —
- F** underground water
 - G** pockets of magnesium
 - H** its own weather
 - J** a magnetic field

3. The writing teacher instructed his students against using colloquial speech in their formal papers.

colloquial *adj.* informal or conversational

4. Actors are much more likely to debut in minor roles than in leads, despite the myth of the undiscovered actor landing a starring role.

debut *v.* present or appear for the first time

5. In the Middle Ages, religion was so powerful that people were condemned to death for heresy.

heresy *n.* belief or beliefs opposed to church doctrine

6. The caterer worked quickly, preparing the hors d'oeuvre she would serve the guests before the dinner.

hors d'oeuvre *n.* appetizer

7. From the happy look on the doctor's face, Alex could see that his tumor was not malignant.

malignant *adj.* dangerous or likely to cause death

8. The pediatrician explained that some membranes and cartilage in the developing skeletal system would not begin to ossify until adolescence.

ossify *v.* turn to bone

9. The literary critic was unkind, but probably accurate, when he referred to Sasha's latest "country doctor" novel as a "sickly sweet pastoral."

pastoral *n.* literature that takes country life as its subject, usually idealizing it

10. Mozart was struggling to complete a requiem, ironically, just before his death.

requiem *n.* music written for the dead

p. 105 | Test-Taking Mini-Lesson
Using Context to Understand Terms

Passage A

- | | |
|------|------|
| 1. C | 3. D |
| 2. G | 4. F |

Passage B

- | | |
|------|-------|
| 5. C | 8. H |
| 6. F | 9. B |
| 7. A | 10. J |

p. 108 | Your Turn 4
Prewriting: Preparing for Research

Responses will vary.

p. 109 | Your Turn 5
Prewriting: Gathering Sources

Responses will vary but should reflect the text.

p. 110 | Critical Thinking Mini-Lesson
Evaluating Sources

Responses will vary. Sample responses follow.

1. This source may be relevant and recent, but because it is a Web page, its reliability and representation could be questionable.
2. This source might be relevant, reliable, and representative, but there is probably a more recent source available.
3. This source may be relevant, but it is not recent and, depending on who produced it, it may or may not be reliable and representative.
4. This source is recent and it is probably reliable and representative, but it is not relevant.
5. This source is probably not relevant and is not recent, and thus its reliability and representation are irrelevant.
6. This source is recent enough, but it is not relevant, and thus its reliability and representation are irrelevant.
7. This source is recent, relevant, reliable, and representative.