

## Reading Comprehension

When we are young, we learn that tigers and sharks are dangerous animals. We might be scared of them because they are big and powerful. As we get older, however, we learn that sometimes the most dangerous animals are also the smallest animals. In fact, the animal that kills the most people every year is one that you have probably killed yourself many times: the mosquito.

While it may seem that all mosquitoes are biters, this is not actually the case. Male mosquitoes eat plant nectar. On the other hand, female mosquitoes feed on animal blood. They need this blood to live and produce eggs. When a female mosquito bites a human being, it transmits a small amount of saliva into the blood. This saliva may or may not contain a deadly disease. The result of the bite can be as minor as an itchy bump or as serious as death.

Because a mosquito can bite many people in the course of its life, it can carry diseases from one person to another very easily. Two of the most deadly diseases carried by mosquitoes are malaria and yellow fever. More than 700 million people become sick from these diseases every year. At least 2 million of these people will die from these diseases.

Many scientists are working on safer and better ways to kill mosquitoes, but so far, there is no sure way to protect everyone in the world from their deadly bites. Mosquito nets can be placed over beds to protect people against being bitten. These nets help people stay safe at night, but they do not kill any mosquitoes. Mosquitoes have many natural enemies like bats, birds, dragonflies, and certain kinds of fish. Bringing more of these animals into places where mosquitoes live might help to cut down the amount of mosquitoes in that area. This is a natural solution, but it does not always work very well. Mosquitoes can also be killed with poisons or sprays. Even though these sprays kill mosquitoes, they may also harm other plants or animals.

Although mosquitoes may not seem as scary as larger, more powerful animals, they are far more dangerous to human beings. But things are changing. It is highly likely that one day scientists will find a way to keep everyone safe from mosquitoes and the diseases they carry.

Q1a. According to the author, some people are more afraid of tigers and sharks than mosquitoes because tigers and sharks

- A. kill more people than mosquitoes
- B. are big and powerful
- C. are found all over the world
- D. have no natural enemies

Q1b. Based on the information in paragraph 2, we can understand that

- I. male mosquitoes and female mosquitoes have different eating habits
- II. male mosquitoes are harmless to humans
- III. female mosquitoes are responsible for transmitting diseases to humans

- A. I only
- B. I and II only
- C. II and III only
- D. I, II, and III

Q1c. In paragraph 2 the author writes, "This saliva may or may not contain a deadly disease." The purpose of this statement is to

- A. oppose a previous argument
- B. question an upcoming conclusion
- C. confirm a hypothesis
- D. support a later statement

Q1d. It can be understood that the introduction of dragonflies might reduce the number of mosquitoes in a given area because dragonflies

- A. work together with mosquitoes
- B. kill mosquitoes
- C. cannot be killed by poisons or sprays
- D. attract bats

Q1e. Which of the following best summarizes the information in paragraph 4?

- A. Mosquito nets provide adequate protection from deadly mosquitoes.
- B. Poisons and sprays provide adequate protection from deadly mosquitoes.
- C. The introduction of the mosquito's natural enemies provides adequate protection from deadly mosquitoes.

D. There is no perfect solution to the mosquito problem.

Q1f. Which of the following words best describes the author's overall attitude towards the prospect of solving the mosquito problem?

- A. despondent, meaning hopeless or dejected
- B. exasperated, meaning extremely irritated or annoyed
- C. equivocal, meaning doubtful or uncertain
- D. optimistic, meaning hopeful or taking a favorable view

**Fleas are perfectly designed by nature to feast on anything containing blood. Like a shark in the water or a wolf in the woods, fleas are ideally equipped to do what they do, making them very difficult to defeat. The bodies of these tiny parasites are extremely hardy and well-suited for their job.**

**A flea has a very hard exoskeleton, which means the body is covered by a tough, tile-like plate called a sclerite. Because of these plates, fleas are almost impossible to squish. The exoskeletons of fleas are also waterproof and shock resistant, and therefore fleas are highly resistant to the sprays and chemicals used to kill them.**

**Little spines are attached to this plate. The spines lie flat against the flea's thin, narrow body as the flea scurries through an animal's fur in search of food. However, if anything (like fingers or a self-grooming pet) tries to pull a flea off through the hair coat, these spines will extend and stick to the fur like Velcro.**

**Fleas are some of the best jumpers in the natural world. A flea can jump seven inches, or 150 times its own length, either vertically or horizontally. An equivalent jump for a person would be 555 feet, the height of the Washington Monument. Fleas can jump 30,000 times in a row without stopping, and they are able to accelerate through the air at an incredibly high rate—a rate which is over ten times what humans can withstand in an airplane.**

**Fleas have very long rear legs with huge thigh muscles and multiple joints. When they get ready to jump, they fold their long legs up and crouch like a runner on a starting block. Several of their joints contain a protein called resilin, which helps catapult fleas into the air as they jump, similar to the way a rubber band provides momentum to a slingshot. Outward facing claws on the bottom of their legs grip anything they touch when they land.**

**The adult female flea mates after her first blood meal and begins producing eggs in just 1 to 2 days. One flea can lay up to 50 eggs in one day and over 2,000 in her lifetime. Flea eggs can be seen with the naked eye, but they are about the size of a grain of salt. Shortly after being laid, the eggs begin to transform into cocoons. In the cocoon state, fleas are fully developed adults, and will hatch immediately if conditions are favorable. Fleas can detect warmth, movement, and carbon dioxide in exhaled breath, and these three factors stimulate them to emerge as new adults. If the flea does not detect appropriate conditions, it can remain dormant in the cocoon state for extended periods. Under ideal conditions, the entire life cycle may only take 3 weeks, so in no time at all; pets and homes can become infested.**

**Because of these characteristics, fleas are intimidating opponents. The best way to control fleas, therefore, is to take steps to prevent an infestation from ever occurring.**

Q2a. The primary purpose of the passage is to

- A. educate the reader about the physical characteristics of fleas
- B. compare fleas to other members of the animal kingdom
- C. relate the problems that can result from a flea infestation
- D. explain why a flea infestation is hard to get rid of

Q2b. The author's tone in the passage is best described as

- A. concerned
- B. passionate
- C. informative
- D. opinionated

Q2c. Fleas are difficult to squish because they have

I. sclerites

II. tough spines

III. resilin in their joints

- A. I only
- B. I and II only
- C. II and III only
- D. I, II, and III

Q2d. The author mentions the Washington Monument in order to

- A. estimate the extreme distance that a flea is able to jump
- B. illustrate a comparison made between fleas and humans

- C. clarify a point made regarding fleas and acceleration
- D. demonstrate the superiority of fleas over humans

Q2e. Using the information in the passage as a guide, it can be concluded that

- A. humans do not possess the physical characteristics of the flea because they have no use for them
- B. humans do not pay much attention to fleas because they do not pose a serious threat
- C. fleas have many physical advantages, although these are outweighed by their many disadvantages
- D. fleas are designed in such a way as to give them unique physical advantages in life

**Claude Monet, a 19th-century French painter, was the most famous artist associated with the movement known as Impressionism. Monet was born on November 14, 1840, and even as a young man he was known for producing small portraits in charcoal. In 1858 Monet met the artist Eugène Boudin, who became his mentor and introduced Monet to painting outdoors, or “en plein air” as it came to be known. In 1859, at the age of 19, Monet moved to Paris to become a professional artist. Most artists of his time tried to imitate nature realistically, but in his landscape painting Monet instead sought to portray nature as it appeared to him. In particular, he was interested in how light affects the ways that we perceive color. In one of his most famous series of works, Monet painted the cathedral in Rouen, France at several different times of day, showing how changes in natural light make the cathedral appear to change color. In 1883, Monet moved to a small French town called Giverny, where he built an elaborate garden. This garden, in particular its water lily ponds, became the chief subject of Monet’s later paintings. Monet’s paintings of water lilies were extremely influential to 20th-century modern artists. In these paintings, Monet used the landscape merely as a starting point, creating abstract fields of vibrant color. These paintings relied on broad, thick brushstrokes. The texture of these brushstrokes gave the canvases a tactile quality that contrasted sharply with the smooth canvases produced by more traditional artists. Though he struggled financially throughout his life, when Monet died in 1926, he was one of the most famous and influential painters in the world.**

Q3a. This passage would most likely be found in

- A. a newspaper
- B. an encyclopedia
- C. a magazine
- D. a blog

Q3b. Based on information in the passage, it can be inferred that the phrase “a tactile quality” suggests that Monet’s canvases were

- A. colorful
- B. beautiful
- C. smooth
- D. rough

Q3c. According to the passage, Monet moved to Paris in 1859 to

- A. join the Impressionism movement
- B. paint cathedrals
- C. become a professional artist
- D. build an elaborate garden

Q3d. The tone of the passage can best be described as

- A. factual
- B. passionate
- C. clever
- D. adoring

**It is bad to have food stuck between your teeth for long periods of time. This is because food attracts germs, germs produce acid, and acid hurts your teeth and gums. Flossing helps to remove the food that gets stuck between your teeth. This explains why flossing helps to keep your mouth healthy, but some doctors say that flossing can be also good for your heart.**

**It may seem strange that something you do for your teeth can have any effect on your heart. Doctors have come up with a few ideas about how flossing works to keep your heart healthy. One idea is that the germs that hurt your teeth can leave the mouth and travel into your blood. Germs that get into the blood can then attack your heart. Another idea is based on the fact that when there are too many germs in your mouth, the body tries to fight against these germs. For some reason, the way the body fights these mouth germs may end up weakening the heart over time.**

**Not every doctor agrees about these ideas. Some doctors think that the link between good flossing habits and good heart health is only a coincidence. A coincidence is the occurrence of two or more events at one time apparently by mere chance. The incidence of these events is completely random, as they do not admit of any reliable cause and effect relationship between them. For example, every time I wash my car, it rains. This does not mean that when I wash my car, I somehow change the weather. This is only a coincidence. Likewise, some doctors think that people who have bad flossing habits just happen to also have heart problems, and people who have good flossing habits just happen to have healthy hearts.**

**The idea that flossing your teeth helps to keep your heart healthy might not be true. But every doctor agrees that flossing is a great way to keep your teeth healthy. So even if flossing does not help your heart, it is sure to help your teeth. This is enough of a reason for everyone to floss their teeth every day.**

Q4a. Which of the following would be the best title for this passage?

- A. Why Doctors Disagree about Flossing
- B. How to Keep Your Teeth Healthy
- C. Flossing Your Way to a Healthy Heart
- D. Flossing by Coincidence

Q4b. In paragraph 3 the author writes, "Not every doctor agrees about these ideas." The author's purpose in writing this sentence is to

- A. explain upcoming information
- B. introduce a new topic
- C. clarify a previous statement
- D. develop an earlier idea

Q4c. Using information in paragraph 3 as a guide, which of the following is the best example of a coincidence?

- A. Jim wakes up with a sore throat. He eats a piece of bacon for breakfast. By noon, he feels much better. Jim decides that the bacon has cured his sore throat.
- B. Laura remembers to brush her teeth every day, but she only remembers to floss once a week. She writes a note to herself, reminding herself to floss and sticks it to her bathroom mirror.
- C. Mario is not very good at baseball. He practices playing every day. After a several months of practice, he is a much better baseball player.
- D. Jai has a bad heart. Her doctor tells her to eat more vegetables and less junk food. After nearly a year of doing this, the doctor tells Jai that her heart is doing much better.

Q4d. Using the final paragraph as a guide, which of the following best states the main idea of the passage?

- A. Because doctors do not agree that flossing will help your heart, it is useless to floss.
- B. It is a fact that flossing can help your heart as well as your teeth.
- C. Even if flossing is only good for your teeth, you should still do it every day.
- D. There is no good reason to believe that flossing will help your heart, but it is still a good idea to do it every day.

Q4e. Based on information in paragraph 2, it can be understood that germs in the mouth may harm your heart by

- I. getting into the blood that flows to the heart
- II. forcing the body to fight against too many of them
- III. causing food to get stuck in the arteries

- A. I only
- B. I and II only
- C. II and III only
- D. I, II, and III