

READ THE PASSAGE Think about the evidence the author presents to support the passage's main points.

Where Is Your Place in the Family?

Birth order—does it matter? Are you different because you are the first, second, or third child in your family—or maybe the last of nine?

A Norwegian study found that first-borns have an average IQ that is three points higher than people who fall into a different place in the birth order, perhaps because first-borns often mentor younger brothers and sisters, which reinforces their own skills. In 2007, an international organization of CEOs found that 43% of CEOs are first-borns, 33% are middle children, and 23% are last-borns. First-borns are more likely to be surgeons and astronauts and earn higher salaries. Additionally, MSNBC cited a study showing that nearly all of the U.S. presidents have been the first-born child or the first-born son in their families.

If first-borns are more successful, last-borns are generally more agreeable. They are also more likely to be funny, possibly to get attention from all the bigger people at the dinner table. Mark Twain and Stephen Colbert were both the youngest in large families, and Jim Carrey was the youngest of four. According to a 2007 *Time* magazine article, "The Power of Birth Order," last-borns are more adventurous and more likely to be artists and entrepreneurs.

Then there are the middle children; we have not ignored them! Many middle children lack one-on-one time with their parents. They often feel short-changed: the oldest gets more privileges, and the youngest is "spoiled." Ignored they may be, but middle children tend to grow into well-adjusted, easygoing adults.

Many factors, including genetics, income, and education, make us who we are, but if the research is correct, birth order may be one of the most important factors.

SKILL PRACTICE Read the item. Write your response.

1. Supply evidence from the text that supports the idea that first-borns may be smarter than their younger siblings.

2. What kind of evidence does the author provide to support the ideas about last-born children?

3. Which idea in the text needs more supporting evidence?

STRATEGY PRACTICE Write one question you thought of while reading the passage. What is the answer?

READ THE PASSAGE Think about why the author wrote the passage.

Do Dogs Dream?

Many people feel that dreams are a uniquely human experience, but just as many dog owners will likely disagree. Commonly reported signs of doggy dreams include shaking legs, muffled barks, and snorting.

Scientists confirm that dogs probably do dream. It turns out that dog brains and human brains have many similarities during sleep cycles. Researchers used special machines to measure electrical activity in a dog's brain and a human's brain. Scientists already knew that when humans dream, a certain part of the brain is active during sleep. Researchers discovered that the same part of the brain is active in sleeping dogs. Scientists have other data that back up these findings.

Many people dream that they are trying to move but cannot. Interestingly, part of that experience is not a dream. When people sleep, the brain releases a chemical that causes the dreamer to become temporarily paralyzed. Researchers think this happens so that people cannot physically act out dreams while they are sleeping. Dog brains release the same chemical. In one study during which this chemical was blocked, sleeping test dogs performed physical activities, such as standing up, sniffing around the room for imaginary rabbits, or chasing phantom tennis balls.

Because of these similarities, researchers believe that the content of a dog's dream might come from the same source as a human's dream. "People's dreams are usually based on things they did that day," says Dr. Samantha Hudspith. "So there's reason to believe that dogs dream about the things they've done that day. Of course, there will never be a way to prove this. Dogs cannot describe their dreams the way that humans can."

SKILL PRACTICE Read the item. Write your response.

1. What is the author's primary purpose for writing this text?

2. Why do researchers believe that the human brain paralyzes the body during sleep?

3. *There is compelling evidence to support the idea that dogs dream.* Use text evidence to prove this statement true or false.

STRATEGY PRACTICE Locate and underline the most important information in each paragraph.

READ THE PASSAGE Think about how the groups of people in feudal Japan were alike and different.

Leaders in Feudal Japan

In feudal Japan, from roughly 1200 to 1900, there were two main groups that made up the class system—nobles and peasants. The nobles were made up of the wealthiest and most powerful people. In descending order, the nobles consisted of emperors, shoguns, daimyos, and samurai. People from the higher class could punish people in the lower class for not showing proper respect. It was very important to know about and recognize members of each group.

The emperor was in charge of feudal Japan in name, but he actually held very little military power. While the emperor was both the wealthiest person in the country and the religious leader, he was a figurehead, or false leader. The emperor received money and goods from all of Japan, but he lacked the authority to make military decisions.

The leader of the feudal Japanese military was called the shogun. The shogun had power over all of Japan's warriors, who protected Japan's land and interests. Even though the shogun title was usually passed down in a family line, some shoguns seized power through force.

The daimyos were the next most important group. Daimyos built imposing castles, bought and sold land, and employed vast groups of people to work on their properties. People could easily identify daimyos because of their colorful clothing, which included specific colors determined by rank and wealth.

Even though many modern people are familiar with Japanese samurai, they were at the bottom of the ruling class in feudal Japan. Samurai were powerful warriors who fought for the military. They were cared for by the people of Japan, but they served under the daimyos, shoguns, and emperors.

SKILL PRACTICE Read the item. Write your response.

1. How did the emperor differ from other leaders in feudal Japan?

2. In what ways were the shoguns and samurai alike?

3. In what ways were the emperor and the shoguns alike?

STRATEGY PRACTICE If you were a noble in feudal Japan, which group would you most want to be part of? Why?

READ THE PASSAGE Look for details that tell how Chinese and European dragons are alike and different.**Dragons of China and Europe**

Dragons appear in fictional stories from around the world, but not all dragons are alike. The dragons that appear in myths from European countries are huge, terrifying, fire-breathing creatures that are shaped like reptiles with wings. They serve as a force of evil and, in famous stories dating from ancient times, must be slain by the heroes of their tales. Legendary heroes such as Hercules, St. George, and Beowulf all fought and killed evil dragons in order to prove their worth.

The dragons that appear in Chinese stories, however, are generally symbols of spiritual power. Similar creatures exist in myths from other countries throughout Asia. Chinese dragons symbolically serve as protection against evil forces in the world. They are shaped like long snakes; they do not have wings or breathe fire. Because of their power, these dragons were historically associated with the emperors of China. The symbol of the dragon is still used today on buildings, on monuments, and even on the clothing of powerful people. During Chinese New Year celebrations, men and boys carry huge dragon puppets and dance with them in parades.

Though the mythical dragons of Asia and Europe are different, they may have a common source. Some experts claim that dragon stories were originally created because ancient people found dinosaur fossils. Because they lacked knowledge about what the dinosaurs were, these people imagined the kind of animal the bones could have come from—huge reptilian dragons.

SKILL PRACTICE Read the item. Write your response.

1. What features do European dragons have that Chinese dragons lack?

2. What is the primary difference between Chinese and European dragons?

3. What does the author propose as the reason for the start of dragon myths?

STRATEGY PRACTICE How does the author organize the information about the two kinds of dragons?

READ THE PASSAGE Use clues from the passage to make inferences about the peppered moth.

The Peppered Moth

Natural selection is the process by which one type of animal within a species thrives because of certain characteristics that make it more likely to live than others in its group. The history of the peppered moth is an example of the natural selection process.

In nineteenth-century England, certain types of peppered moths were able to better blend into their surroundings. During that time period, great changes were happening in Great Britain. The Industrial Revolution was part of this change, and with it came air pollution. Natural selection often takes hundreds or even thousands of years to occur. For the peppered moth, this process occurred relatively quickly.

At the beginning of the Industrial Age, most peppered moths in England were light-colored and speckled with black markings, although a few moths had dark-colored wings. Because the light-colored moths blended into the light-colored bark on the trees, they could not be easily seen by birds that would eat them. As the air grew more polluted, however, tree trunks became covered with soot and became darker. The light-colored moths became easy for birds to see against the dark tree trunks. Since the dark-colored moths now had the advantage, their numbers grew. Within 50 years, the peppered moth went from being mostly light-colored to being mostly dark-colored.

In the twentieth century, the air significantly cleared up, and the peppered moth population changed again. As tree trunks lightened due to less soot in the air, light-colored moths once again had an advantage. Their numbers increased as soot levels declined. Depending on their environment, the coloration of the moths helped them to be “naturally selected” to survive.

SKILL PRACTICE Read the item. Write your response.

1. Why is the peppered moth’s adaptation unusual?

2. What would immediately happen to the peppered moths if a volcanic eruption coated England’s trees in ash?

3. Draw a conclusion regarding why the air cleared up during the twentieth century.

STRATEGY PRACTICE Describe an experience that natural selection reminds you of.

READ THE PASSAGE Think about how the author organizes the events in the passage.

Stealing *Mona Lisa*

Leonardo da Vinci's *Mona Lisa* is perhaps the most famous painting in the world. The mysterious smile of the woman in the portrait has intrigued viewers for hundreds of years and has drawn millions of visitors to the museum in which it hangs—the Louvre in Paris, France.

About a hundred years ago, in August of 1911, *Mona Lisa* was stolen from the Louvre. The people of France were distraught, fearing that the painting had been destroyed. The police had few leads in the case and made only one arrest. They believed that Guillaume Apollinaire, a famous poet and art critic, might have stolen the painting, but he was quickly released. While in custody, he tried to blame another famous artist for the theft—Pablo Picasso.

As it turned out, neither man was involved with the infamous theft. Two years after *Mona Lisa* was stolen, a man who claimed to have the painting contacted an Italian art dealer. This man, Vincenzo Peruggia, offered the painting to the art dealer. There was just one condition—the art dealer would have to keep the painting in Italy instead of sending it back to France. Even though the art dealer believed that Peruggia might not have the painting, he contacted the police anyway. When the art dealer met Peruggia, he found that the man's story was true. Peruggia, a former handyman at the Louvre, had stolen the painting. He was quickly arrested and convicted of the crime. *Mona Lisa* survived intact and was returned to the Louvre in Paris, where it is still on display.

SKILL PRACTICE Read the item. Write your response.

1. Why did the police quickly release Guillaume Apollinaire?

2. What can you infer from the fact that the police were unable to find the thief on their own?

3. Why did the Italian art dealer contact the police?

STRATEGY PRACTICE How does the author use the passage's organization to make the story exciting?
