

Readers use the **organization** of a text to understand what the text is about. Organization is the way an author chooses to share information.



To know a text's **organization**, pay attention to the words the author uses.

This text has a question-and-answer organization.

Name: _____

SCIENCE
Getting to Know Snakes

Getting to Know SNAKES

Say the word *snake* among a group of friends, and you'll probably see panic on at least a few faces. Learning about these legless reptiles can lessen the fear of them. Read about where snakes live, how they move and hunt, and their role in nature. Finally, learn how to stay safe around snakes.

→ **Where do snakes live?**
Snakes live on almost every continent, but mostly in warm climates. In places with cold winters, snakes stay underground and conserve energy until spring. They move and eat very little during cold months. This is because snakes, like other reptiles, need sunlight or another heat source to keep their bodies warm. Even during warmer months, it is common to find snakes napping on rocks in the sun. They may also rest under a warm rock or underground where a patch of soil has been warmed by sunlight.

→ **How do snakes move around?**
Snakes get around by using the muscles and scales of their long, limbless bodies. They propel themselves forward or sideways using their strong muscles. Their scales help them grip surfaces and also protect their bodies as they move over rough ground. All that motion wears out the scales, though, so snakes grow replacement scales. This is

Organization of Text	Key Words and Phrases to Look for
Cause and Effect	leads to, result, cause, effect, impact, outcome
Sequence	first, second, third, fourth, etc..., next, then, after, before, last, finally
Compare and Contrast	like, alike, in contrast, similarly, different, unlike, on the other hand
Main Idea and Details	for example, also, one reason is, for instance, specifically
Question and Answer	who, what, where, when, why, how

Organization

By looking at how a passage or selection is organized, students can better understand the author's intent, as well as predict what information is likely to appear later in the text. Texts are often organized sequentially, around main idea and details, according to cause and effect, or by comparison and contrast.

DAY 1

Reproduce the *Organization* visual aid and distribute it to students. Then introduce the *Organization* strategy to students and explain: **Authors try to organize their writing in ways that will help readers best understand the information.** Read aloud the title and the headings in the passage. Say: **This author has organized information about diet crazes into different sections. As you read, pay attention to the type of information included under each heading.** Have students read the passage. When they have finished, ask: **How is this passage organized?** (by main idea and details) Direct students to complete the strategy practice activity. Then have them complete the skill practice activity, and review the answers together.

DAY 2

Remind students of the *Organization* strategy. Read aloud the first paragraph of the passage. Say: **The beginning of this passage asks whether pigs are smart. Let's see if the author includes information to answer the question.** Have students finish reading the passage independently and complete the strategy practice activity. Then ask: **What other ways could the author have organized the information in the passage?** (chart, bulleted list) **How would a different organization have changed the passage?** (It would probably have made it less interesting.) Then direct students to complete the skill practice activity. Review the answers together.

DAY 3

Remind students of the *Organization* strategy. Say: **Many authors use dates to help readers understand the order of events in their texts. Good readers pay attention to dates and time signal words to help them better understand how things may have changed over time.** After students have finished reading the passage, ask: **What is the primary time period for the information included in the passage?** (the 1200s; the Middle Ages) Then direct students to complete the strategy and skill practice activities. Review the answers together.

DAY 4

Remind students of the *Organization* strategy. Say: **As you read the passage, notice words that indicate sequence, such as *later* and *today*.** Have students read the passage independently. When students have finished reading, direct them to complete the strategy practice activity. Remind students to place events on their timelines in chronological order. Then direct students to complete the skill practice activity. Review the answers together.

DAY 5

Remind students of the *Organization* strategy. Review the different ways that texts can be organized, such as by cause and effect, problem and solution, main idea and details, or sequentially. Have students read the directions at the top of the page and the passage independently. When students have finished reading, ask: **How is this passage organized?** (by main idea and details) Then direct students to complete the strategy and skill practice activities. Review the answers together.

READ THE PASSAGE

As you read, pay attention to the title and the headings.

Wild Diet Crazes

Watching what you eat and getting plenty of exercise can be difficult. Many wild diets claim to help people lose weight quickly or in miraculous ways. Here are some unusual diet crazes from the past.

The Tapeworm Diet

In the early 1900s, dieting ads appeared for pills containing tapeworms. Tapeworms are parasites that can live in a person's digestive system. The belief at the time was that the tapeworms would consume some of the food that was in a person's digestive tract, which would cause the person to lose weight. There was no evidence to support this idea, but there was plenty of evidence showing that tapeworms were dangerous. They made people sick and could even cause death.

Diet Sunglasses

Sunglasses with dark blue lenses do not protect your eyes from the glare of the sun, but from the attraction of ice cream. The idea behind this Japanese invention is that if food looks disgusting, people will eat less of it. Do you think people would drink fewer vanilla milkshakes if they looked dark blue? Since they were invented in 2008, thousands of shoppers each year have answered yes.

Ear Stapling

This diet, first introduced in 2000, is a real pain. Dieters have a staple put in their ear cartilage, which is the stiff, flexible part of the outer ear. This is supposed to decrease their appetite. Whether or not this is true, the dieters can definitely get an infection or even suffer nerve damage.

STRATEGY PRACTICE

How do the headings help organize the passage?

SKILL PRACTICE

Read the item. Write your response.

1. Use quotations marks to write the sentence that contains the main idea of this text.

2. A person who is affected by the appearance of food might be willing to try which diet above?

3. Order the diet crazes given in the text from newest to oldest.

READ THE PASSAGE

Think about the evidence the author presents to support the ideas in the passage.

Babe: Could It Really Happen?

In Dick King-Smith's novel *Babe: The Gallant Pig*, a pig herds sheep better than dogs do. Could that happen in real life? Are pigs as smart as dogs? According to Farm Forward, an advocacy group for sustainable family farms, pigs can do anything dogs can. In support of this conclusion, they point out that the makers of the movie *Babe* did not use any tricks in making the film. They just taught the pig to do the things that they wanted it to do.

How intelligent are pigs? Pretty smart, according to Dr. Stanley Curtis of Penn State University. The scientist taught pigs to play a video game by operating the joystick with their snout. Remarkably, they learned the game more quickly than chimpanzees. Giving human gamers a run for their money, the pigs hit their game targets 80% of the time! Farm Forward also tells of a successful study in which pigs were taught to adjust thermostats.

One pig farmer claims that a sow (a mother pig) in a pen with her piglets kept mysteriously escaping from the enclosure. After finding the lonely sow and her piglets back out with the herd several times, her keepers installed a spring-loaded latch, which could be opened only by pressing a ring and lifting a hook. The sow and piglets kept getting out—always when their keepers were not looking. Finally, the keepers hid behind a shed and watched. After looking to see that no one was watching, the sow depressed the ring by biting it, and then raised the hook. If a sow can figure out how to unlatch a gate while no one is looking, herding sheep is a piece of cake.

STRATEGY PRACTICE

How does the author organize the information about pigs?

SKILL PRACTICE

Read the item. Write your response.

1. What did the sow do just before opening the latch?

2. Why did the author begin the text by discussing a fictional pig?

3. What evidence did the author include to prove that pigs are clever, social animals?

READ THE PASSAGE Pay close attention to the organization of the passage.

Grinding Grain Through the Middle Ages

Grinding grain between millstones to produce flour is an ancient practice. Grain, the basis of bread, has always been a very important crop. Grinding grain by hand using millstones was extremely time-consuming. As the population grew and needed more grain, waterwheels came into use around 100 BC to harness the energy of moving water. They helped turn the stones to grind, or “mill,” the grain. This was the first use of technology that was not human- or animal-powered. It was the beginning of industrial production. A waterwheel could do the work of 30 to 60 people!

While waterwheel-powered mills greatly benefited those who lived near rivers or oceans, they were not convenient for people who cultivated land that was not near flowing water. Around 1180, the first European windmills appeared, using wooden posts and stones to grind the grain. By the 1200s, windmills were popping up all over Europe.

The first windmill design had one problem—if the wind changed direction, the miller had to turn the entire millhouse to catch the wind. By the end of the Middle Ages, brick and stone tower windmills appeared. Instead of having to turn the entire millhouse when the wind turned, a miller could turn just the cap, or top, of the windmill, making work easier.

These technological advances were just the start, eventually leading to steam power, which fueled the Industrial Revolution. Each advance made life a little easier and freed people up to make better use of their time. They could even stop to enjoy the tasty bread made from milled grain!

STRATEGY PRACTICE How did the author organize the text to relate the history of windmills? Why was it useful?

SKILL PRACTICE Read the item. Write your response.

1. What need led to the development of the waterwheel?

2. What need led to the invention of the windmill?

3. What caused a problem for early windmills?

READ THE PASSAGE Think about how each event in vaccine development helped make the next step possible.

The History of Vaccines

Few people enjoy getting shots at the doctor's office. But many of these shots are important vaccines that help prevent us from getting certain diseases or types of infection.

Vaccines got their start in Europe in the 1720s, when a British woman named Lady Mary Wortley Montagu was visiting Turkey. She saw Turkish doctors purposefully inoculating, or infecting, people with small amounts of smallpox. Smallpox is a painful, deadly disease that had no cure at the time. But Lady Montagu was amazed that the patients not only recovered, but then proved to be immune to the disease!

Lady Montagu quickly returned to England, excited to share this new procedure. But inoculation took many years to catch on. One problem was that no one had a precise way of inoculating people safely. Occasionally, patients would become fully infected and then begin spreading the disease. However, inoculation eventually saved enough people for it to become the common practice for preventing smallpox.

Some years later, a scientist named Edward Jenner discovered that people who had been infected with a disease called cowpox became resistant to smallpox. Cowpox was much less harmful than smallpox. Jenner convinced doctors to inoculate people with cowpox, which led to a very safe vaccine and far fewer outbreaks of smallpox. Finally, a French scientist named Louis Pasteur realized that Jenner's idea could be used to treat other diseases. Since then, vaccines have been made for many other diseases, such as polio, tetanus, and rabies.

Today, scientists and doctors continue to create new vaccines that could potentially save millions of lives worldwide.

STRATEGY PRACTICE Draw a timeline that shows the sequence of events in the passage.**SKILL PRACTICE** Read the item. Write your response.

1. Where did the use of vaccines begin?

2. What is this text's main idea?

3. Describe what happened after Edward Jenner discovered the connection between cowpox and smallpox.

READ THE PASSAGE Look for important details about the Cowal Highland Gathering.

The Great Games of Scotland

Every August in the Scottish town of Dunoon, over 3,500 people travel from across the world to compete in the Cowal Highland Gathering. Like a cross between a music festival and the Olympics, the Cowal Highland Gathering features musical events, a dancing competition, exhibition tents, local food, and sporting events. Supporters of the gathering say events such as this are important for celebrating Scottish culture.

For over 100 years, pipers have competed for top honors at Cowal. Pipe bands and solo performers play the traditional Scottish instrument—the bagpipe. Fans of the event say the music is breathtaking. However, critics say that when all the bands perform as a single group—with over 3,000 pipers—it sounds like every goose in Scotland has flown to Dunoon to complain of a bellyache.

The Cowal Highland Gathering is also home to the Scottish Highland Dancing National Championships. Hundreds of dancers in kilts and ornately patterned socks jig, fling, and leap for the honor of being the country's best dancer.

Sports fans also flock to the Cowal Highland Gathering. Tossing the caber, a log about 19 feet (6 m) long, is a popular Scottish sport. Men and women who compete heave the huge log end-over-end to make it land as straight as possible. The traditional wrestling event also sees participants from around the world.

From dancing to piping to tossing giant logs, the Cowal Highland Gathering is one of Scotland's most entertaining and popular summer events.

STRATEGY PRACTICE Why do you think the author chose to organize the passage this way?

SKILL PRACTICE Read the item. Write your response.

1. What is this text about?

2. Draw two conclusions about the people who compete in tossing cabers.

3. Use quotation marks and ellipses to quote the part of the text that shows that not everyone appreciates the Cowal Highland Gathering.
