

GRADE 7

myPerspectives™

ELD Companion



Grade 7



myPerspectives
ELD Companion Workbook

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Can all mysteries be solved?

“Fact or Fiction?”

SUMMARY

This passage explores some mysterious places, creatures, and events. First it describes three unexplained mysteries in Egypt. It tells about the design of the Great Pyramids, the age of the Great Sphinx, and the curse on Tutankhamen’s tomb. Then the article asks why people abandoned the mountain-top city of Machu Picchu. It questions why people built the circle of huge rocks known as Stonehenge. And it asks why there are hundreds of large statues on Easter Island. The article also describes reports of strange creatures. These include giant octopuses and squid, the famous Loch Ness monster, and the ape-like Bigfoot and yeti.

Visual Summary

GREAT MYSTERIES from around the world	
<i>Where?</i>	<i>What?</i>
Egypt	The Pyramids of Giza The Great Sphinx The Curse of King Tutankhamen
Peru	The Abandoned City of Machu Picchu
England	Stonehenge
Easter Island	Giant Statues called Moai
The Ocean	Giant Sea Creatures
Scotland	The Loch Ness Monster
United States	Bigfoot or Sasquatch
Tibet	Yeti

Use What You Know

List three real life mysteries you have heard or read about.

1. _____
2. _____
3. _____

Text Structure

A social studies text often has highlighted words. Their definitions are at the bottom of the page. Circle the first highlighted word on this page and underline its definition. Reread the sentence in which it appears. Rewrite the sentence without using the highlighted term.



Reading Strategy: Preview

Good readers preview a text before they begin to read. Previewing can help you to better understand what you read. Underline the first sentence of the second paragraph. What do you think this paragraph might be about?



Fact or Fiction?

Path to the Stars?

About 4,500 years ago, the **pharaoh** Cheops and his son and grandson built the three Pyramids of Giza in Egypt. These pyramids were tombs, or places to bury the dead. For thousands of years, people didn't understand why these three pyramids were grouped together.

Then Belgian **engineer** Robert Bauval noticed that the shape of the three pyramids was the same as part of a group of stars in the sky called Orion's Belt. The whole group of stars—Orion—was sacred to the Egyptians. When Cheops died, he was buried in the Great Pyramid of Giza. The Egyptians made a shaft—or hole—in this pyramid. The shaft led from Cheops's tomb to the sky and the three stars of Orion's Belt. Scientists believe that the Egyptians built this shaft so that Cheops could fly from the pyramid to Orion. There, he would become a god.

pharaoh, ancient Egyptian ruler
engineer, person who plans how to build machines, roads, and so on

The Secret of the Great Sphinx

A huge **statue** with the head of a man and the body of a lion stands in Giza, Egypt. Known as the Great Sphinx, it seems to defend the pyramids behind it. Like the pyramids, the Sphinx is made from **limestone**, which is very common in Egypt. The exact age of the Sphinx remains one of the world's great mysteries. For thousands of years, wind and sand have **eroded** this enormous sculpture. Some archaeologists believe that water also damaged the Sphinx many **centuries** ago. Was the Sphinx once buried at the bottom of the sea? No one knows for sure.

Mysterious Cities

Some ancient cities were **abandoned** and no one knows why. One of these cities is Machu Picchu, located about 2,440 meters (8,000 ft.) high in the Andes Mountains of Peru. The Inca built Machu Picchu from about 1460 to 1470 c.e. They lived in parts of South America, including what is now Peru. They used stone blocks to make most of the buildings. The blocks fit together perfectly.

statue, shape of a person or animal made of stone, metal, or wood

limestone, a type of rock that contains calcium, often used to make buildings

eroded, slowly destroyed

centuries, periods of 100 years

abandoned, left completely behind and not used anymore

Reading Strategy: Preview

Circle the two headings on this page. What do you think each section might be about?



1. _____

2. _____

Comprehension Check

Circle the name of the famous statue in Giza, Egypt. What does this giant statue look like?



Text Structure

Social studies articles often include important dates.



Underline the sentence that tells when Machu Picchu was built. Where is the city located?

Text Structure

Circle the first highlighted word on this page and underline its definition. Then use the highlighted word in a new sentence.



Reading Strategy: Preview

Draw a box around the heading on this page. Then add some words to the heading to turn it into a question.



Comprehension Check

Underline the sentence that tells when Stonehenge was built. Why do you think researchers don't know exactly who built this monument?



In the early 1500s, everyone left the city. No one knows why. Perhaps people died or left because of smallpox, a deadly disease that was brought to the Americas by European explorers and colonists. Machu Picchu was forgotten for hundreds of years. Then, in 1911, the American explorer Hiram Bingham rediscovered it. Today, tourists from all over the world visit this unique city.

Stonehenge

Stonehenge is a mysterious monument of huge stones in England. Ancient peoples built Stonehenge about 5,000 years ago. No one really knows who these people were or why they built this strange circle of rocks.

Some people believe that Stonehenge was a temple to the sun. Other people believe that Stonehenge was a great stone calendar or calculator. They think that the stones were arranged to measure the sun's movements. For example, the stones may have been used to measure the summer and winter solstices—the longest and shortest days of the year. Perhaps Stonehenge was created to mark the rise of the sun and moon throughout the centuries. How will we ever know for sure?

colonists, people who settle in a new country or area
monument, something that is built to help people to remember an important person or event
temple, holy building
calculator, instrument used to figure out mathematical problems

Island of Giants

Easter Island is a tiny island in the Pacific Ocean, 3,620 kilometers (2,250 mi.) off the coast of Chile. It was named by Dutch explorers who arrived there on **Easter Sunday**, 1722. The island is covered with nearly 900 large statues, called “moai.” Scientists believe the statues are the gods of the ancient people of Easter Island—the Rapa Nui people. But no one knows for sure. Another mystery is how the Rapa Nui people moved the heavy stones as far as 23 kilometers (14 mi.).

Archaeologists have found wooden tablets with the ancient language of the Rapa Nui people on them. No one knows how to read this language today. So the history of the Rapa Nui people is still a puzzle. Only the great stone statues remain to watch over the island.

Easter Sunday, a special Sunday in March or April when Christians remember Christ’s death and his return to life

Reading Strategy: Preview

Previewing can help you guess the main subject of a text. Circle the heading on this page. What do you think this section might be about?



Text Structure

Social studies includes geography, which is the study of places around the world. Underline the sentence that tells who arrived on Easter Island in the 1700s. Where is the island located?



Comprehension Check

Underline the sentence that tells what archaeologists have found on the island. Who were the Rapa Nui?



Reading Strategy: Preview

Draw a box around the heading on this page. Then add some words to the heading to turn it into a question.



Text Structure

Social studies articles often include important dates. Underline the sentence that tells what happened in 1922. Who was Tutankhamen?



Comprehension Check

Circle the number of people who died soon after the tomb was opened. Do you believe in the curse of the pharaoh? Why or why not?



Curse of the Pharaoh

Tutankhamen was a pharaoh in ancient Egypt from 1333 to 1324 b.c.e. When he died, Tutankhamen was buried in a tomb with gold and other treasures.

In 1922, a group led by British archaeologists Howard Carter and Lord Carnarvon opened the tomb of Tutankhamen. They found many treasures, including a beautiful gold mask. Some people believed that a message carved in the tomb wall said, “Death will slay with his wings whoever disturbs the peace of the pharaoh.” Lord Carnarvon died soon after opening the tomb. According to one story, Carnarvon’s dog died at the same time at his home in England. Then, five months after Carnarvon died, his younger brother died suddenly.

According to one report, six of the twenty-six people at the opening of Tutankhamen’s tomb died within ten years. However, many other people who were there when the tomb was opened lived to be very old. Was there really a curse? What do you think?

-
- message, information that is communicated in words or signals
 - slay, kill
 - curse, wish that something bad would happen to someone

Terrifying Tentacles

Scientists say that we know more about Mars than we do about the mysteries at the bottom of the ocean. For instance, little is known about giant octopuses and squid. These sea creatures are usually only about 60 to 90 centimeters (2–3 ft.) long. However, there have been reports of giant octopuses and squid with tentacles long enough to pull a ship underwater. In 1753, a man in Norway described a huge sea monster “full of arms.” The man said that the monster looked big enough to crush a large ship. More recently, giant squid have been discovered with tentacles 10 meters (33 ft.) long. Imagine eating calamari rings the size of truck tires!

Scary Monsters

Most people believe that dinosaurs disappeared millions of years ago. However, a few dinosaurs may have survived. The famous Loch Ness monster may be a living dinosaur-like reptile called a plesiosaur.

tentacles, long, thin arm-like parts
calamari rings, sliced squid, often served fried or in a salad
reptile, type of animal, such as a snake or lizard, whose blood changes temperature according to the temperature around it

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Comprehension Check

Underline the sentence that compares our understanding of Mars to what we know about the bottom of the ocean. Why do you think scientists don't know very much about the bottom of the ocean?



Text Structure

Circle the first highlighted term on this page. Look at its definition. Then use the word in a new sentence.



Comprehension Check

Circle the sentence that tells what the Loch Ness Monster might be. How long ago did dinosaurs disappear?



Text Structure

Social studies articles often include important dates. Circle the passage that tells what happened in April 1933. What happened, and where did this event occur?



Reading Strategy: Preview

Draw a box around the heading on this page. What do you think this section will be about?



Comprehension Check

Circle the names of all the creatures mentioned in the last paragraph on this page. What do the creatures have in common?



People first reported seeing the Loch Ness monster in April 1933 when a new road was built on the north shore of Loch Ness, a lake in Scotland. A man and woman saw a huge creature with two black humps swimming across the lake. Then two more people saw a strange animal crossing the road with a sheep in its mouth. There is now a Loch Ness Investigation Bureau, but most scientists believe that the Loch Ness monster is a creature of fantasy.

Bigfoot and the Yeti

In various parts of the world, people have told stories about seeing large ape-like creatures. Different cultures give the creature different names. In the United States, for example, this creature is called Bigfoot or Sasquatch. In Tibet, it is called the yeti.

humps, raised parts on the back of an animal
various, different

The first reports of Bigfoot date back to 1811. At that time, a man reported seeing footprints 36 centimeters (14 in.) long. In 1924, another man claimed that Bigfoot had kidnapped him. Each year many people in the United States claim to see Bigfoot. They often report seeing the creature in the forests of the Northwest.

Reports of a huge creature frightened the first European travelers in Tibet. (In Tibet, the word *yeti* means “man-like creature.”) In 1951, a Mount Everest explorer found giant footprints in the snow.

Do creatures like the yeti and Bigfoot really exist, or are they figments of the imagination? Bernard Heuvelmans (1916–2001), a famous zoologist, believed that the world is full of creatures still unknown to science. What do you think?

figments of the imagination, things imagined to be real that do not exist
zoologist, scientist who studies animals

Choose one and complete:

1. Draw a picture showing what one of the mystery creatures described in the text might look like.
2. Use reliable sources at the library or on the Internet to find out about another great mystery. Write a one-page report on what you find.
3. Work with a group of classmates to write and perform a short play about researchers working to solve one of the mysteries discussed in the reading.

Reading Strategy: Preview

Remember that you should preview a text before you begin to read. Underline the first sentence on this page. What do you think this section will be about?



Text Structure

Social studies articles often define or explain key terms within the text. Circle the definition of *yeti*. Use this definition to describe what the yeti’s footprints probably looked like.



Comprehension Check

Underline the sentence that tells who Bernard Heuvelmans was. What do you think he would say about the existence of Bigfoot?



READING WRAP-UP

Retell It!

Choose four mysteries from the reading. Write a riddle about each one. Here's an example: I am a mysterious monument of stones in England. What am I? (*Stonehenge*)

Reader's Response

What mystery did you find the most interesting? Why?

Think About the Skill

How did previewing help you to better understand the article?

EDIT FOR MEANING

Read

You have read "Fact or Fiction?" Now read one paragraph from it again.

Island of Giants

Archaeologists have found wooden tablets with the ancient language of the Rapa Nui people on them. No one knows how to read this language today. So the history of the Rapa Nui people is still a puzzle. Only the great stone statues remain to watch over the island.



Fix the Error

Each paragraph below contains the same information as the paragraph you just read. However, each paragraph contains one error. First, find the error. Then fix it by editing the sentence so that the information is correct.

1. Find and fix the error.

Island of Giants

Today, Easter Island is bare except for the giant statues that stare out over the island. Archaeologists know little about the history of the Rapa Nui people. They have found wooden tablets written in the ancient language of the Rapa Nui. Many people still speak this language today.

2. Find and fix the error.

Island of Giants

The history of the Rapa Nui people is well known to scientists. Archaeologists have found pieces of wood with the ancient language of the Rapa Nui people written on them, but no one understands this language. Now, Easter Island is quiet. Only the huge stone statues stand guard on the island.

FOCUS ON DETAILS

Word Search Puzzle

To complete this word search puzzle, you'll need to remember or search for details in the reading. Write the word from the text next to each clue. Then circle the answers in the puzzle below.

1. Ancient tombs built in Egypt _____ *pyramids* _____
2. Huge statue with the head of a man and the body of a lion _____
3. City in Peru that was abandoned in the early 1500s _____
4. Stone monument in England _____
5. Small island with giant carved statues _____
6. Pharaoh whose tomb may have been cursed _____
7. Real creature with tentacles 10 meters long _____
8. Possible dinosaur-like reptile in Scotland _____
9. Apelike creature from Tibet _____
10. Another name for Bigfoot in the United States _____

K	I	M	A	C	H	U	P	I	C	C	H	U	O	R
T	E	T	I	H	V	H	E	I	I	D	M	S	E	G
H	V	J	U	T	D	O	R	B	J	S	D	T	D	I
C	X	M	A	T	C	D	I	C	C	S	S	N	I	A
S	A	S	Q	U	A	T	C	H	N	N	P	Q	U	N
L	G	Y	B	Y	L	N	E	S	O	R	H	L	A	T
X	N	L	O	P	L	P	K	M	M	U	I	Q	W	S
P	Y	R	A	M	I	D	S	H	L	C	N	K	T	Q
A	N	L	Z	N	R	S	J	D	A	Q	X	T	T	U
D	K	V	N	B	E	J	B	B	B	M	O	D	X	I
N	I	H	X	N	T	K	P	L	N	Y	E	T	I	D
N	O	X	H	D	S	T	O	N	E	H	E	N	G	E
Q	F	C	H	X	B	Y	U	D	Q	Z	D	I	X	A
S	O	L	W	J	E	J	P	K	Z	T	B	R	P	H
L	E	A	S	T	E	R	I	S	L	A	N	D	N	X

READ FOR FLUENCY

1. Silently read the text below. Make sure you understand the point that each sentence is making.
2. Underline the word or words in each sentence that are most important. When you read, you should say these underlined words with expression.
3. Look again at the punctuation in the paragraphs. Remember that when a sentence ends in a period, you should read the words as a statement and take a breath before beginning a new sentence. When you see a comma, you should pause briefly. When you see an exclamation mark, you should sound excited. When you see a question mark, you should read as though you are asking a question.
4. Now read the paragraphs below out loud. Pay attention to the important words and punctuation as you read.
5. Write down any words that slowed you down. Practice saying these words out loud.
6. Read the text below out loud two more times. You may want to ask a friend or family member to listen to you and tell you their reactions to your reading.

Terrifying Tentacles

Scientists say that we know more about Mars than we do about the mysteries at the bottom of the ocean. For instance, little is known about giant octopuses and squid. These sea creatures are usually only about 60 to 90 centimeters (2–3 ft.) long. However, there have been reports of giant octopuses and squid with tentacles long enough to pull a ship underwater. In 1753, a man in Norway described a huge sea monster “full of arms.” The man said that the monster looked big enough to crush a large ship. More recently, giant squid have been discovered with tentacles 10 meters (33 ft.) long. Imagine eating calamari rings the size of truck tires!

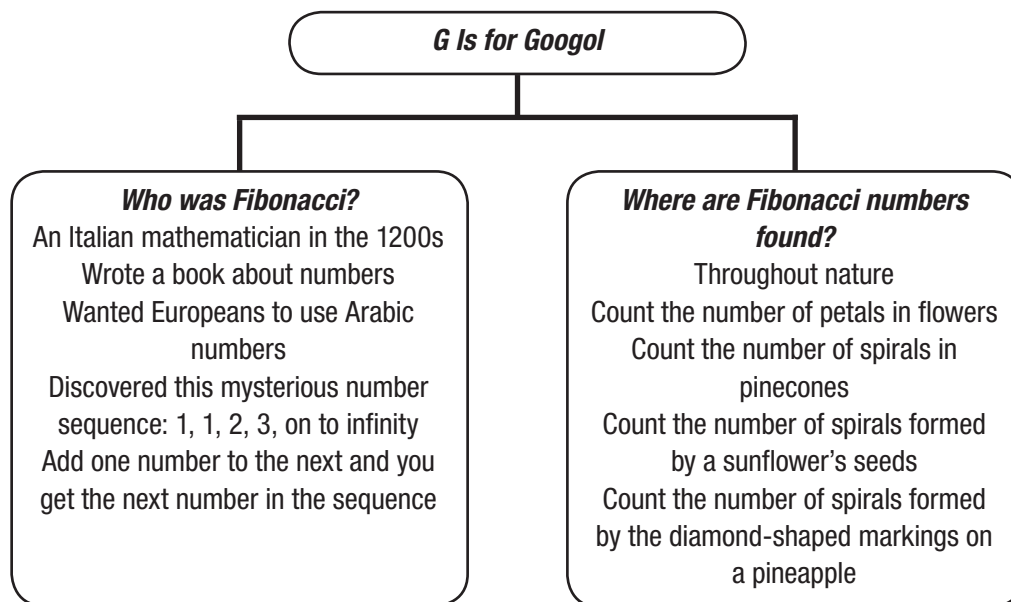
Can all mysteries be solved?

From *G Is for Googol*

SUMMARY Use with textbook pages 40–43.

These two sections from *G Is for Googol* describe an unusual number sequence that is found in nature, art, architecture, music, and poetry. “F Is for Fibonacci” tells about the Italian mathematician named Fibonacci who discovered the mysterious number sequence in the 1200s. The first 12 numbers in the series are 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, and 144. When you add one number to the next, you get the following number in the sequence. “N Is for Nature” explains how to find the Fibonacci sequence in pinecones and other natural objects, including sunflower seeds, pineapples, and artichokes.

Visual Summary



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Use What You Know

List three ways you use numbers in your daily life.

1. _____
2. _____
3. _____

Text Structure

Science articles often include the dates or time periods in which famous discoveries or advances were made. Underline the time period that appears on this page. What happened then?



Reading Strategy: Use Visuals

Visuals include charts, diagrams, and photographs. They support the text by showing information in a different form. Circle the visual on this page. What does it show?



From *G Is for Googol*

by David M. Schwartz

Did you know that a googol is a 1 followed by 100 zeroes? G Is for Googol is a math alphabet book that explains many unusual mathematical words and facts. Read two sections from this amazing book. Both are about a mysterious number sequence.

F Is for Fibonacci

In the 1200s, an Italian mathematician named Leonardo of Pisa wrote a book about numbers. He signed his name *Fibonacci* (pronounced fib-o-NOTCH-ee).

In his book, Fibonacci said that the people of Europe should stop using Roman numerals. He wanted everyone to switch to the numerals used in the Arabic world. Instead of writing LXXVIII, they could write 78. Isn't 78 easier to write than LXXVIII? Well, Fibonacci thought so, and because of him, we use Arabic numerals today.

Fibonacci's book also included story problems. One was about rabbits: How many pairs of rabbits will there be each month if you start with one pair of newborn rabbits, and that pair produces a pair of babies every month? The rabbits start producing babies when they are two months old, and their babies also have their first babies when they become two months old.

_____ **producing**, having



Here's one way to look at it:

After How Long?	How Many Rabbits?
Starting point	1 pair
After 1 month	1 pair
After 2 months	2 pairs
After 3 months	3 pairs
After 4 months	5 pairs
After 5 months	8 pairs
After 6 months	13 pairs
After 7 months	21 pairs
After 8 months	34 pairs
After 9 months	55 pairs
After 10 months	89 pairs
After 11 months	144 pairs

Let's look at the answers another way:

1 1 2 3 5 8 13 21 34 55 89 144

These are the first 12 numbers in the famous *Fibonacci sequence* of numbers.

See if you can **figure out** what's so special about the Fibonacci sequence. After the first two numbers, how can the others be made? Think about it before you read on.

Whenever you add one number to the next, you get the following number in the sequence. Try it. Add 2 and 3. What do you get? Now add 5 and 8. Got it? Okay, now what number comes after 144 in the Fibonacci sequence?

Fibonacci numbers are interesting, but what's *amazing* about them is how often they appear. You can find Fibonacci numbers in art, architecture, music, poetry, and nature. Read **N Is for Nature**. Get ready to be amazed.

figure out, think about a problem or situation until you find the answer or understand what has happened

Reading Strategy: Use Visuals

Visuals can help you to better understand the information in an article. Circle the chart on this page. What does the chart show?



Text Structure

A science text often has highlighted terms. Their definitions are at the bottom of the page. Circle the highlighted term on this page and underline its definition. Write a new sentence using the term.



Comprehension Check

Underline the sentence that lists the different areas where you can find the Fibonacci sequence. According to the author, what is amazing about this number sequence?



Comprehension Check

Underline the sentence that tells where you can find the Fibonacci sequence in a flower. What is another example of the Fibonacci sequence in nature?



Text Structure

Science articles often explain or define key terms within the text. Circle the definition of *florets*. Name one kind of flower that has florets.



Comprehension Check

Underline the sentence that tells how many pine needles are in a bundle. How do these numbers connect to the Fibonacci sequence?



N Is for Nature

There are numbers in *nature*. Lots.

Do you remember the Fibonacci sequence of numbers? Here are the first twelve numbers of the Fibonacci sequence:

1 1 2 3 5 8 13 21 34 55 89 144

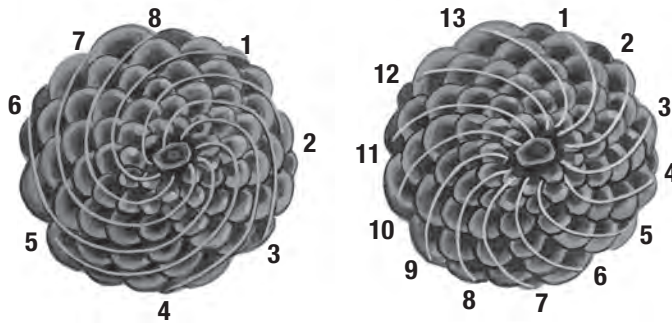
Fibonacci discovered this number sequence, but he did not invent it. Nature invented it. If each page of this book stated one way that Fibonacci numbers appear in nature, we'd need a book so heavy you couldn't lift it. Here are just a few.

The number of **petals** in a flower is usually a Fibonacci number. Some flowers, like daisies, don't have true petals, but petal-like parts called *florets*. Florets come in Fibonacci numbers, too.

Pine needles come in groups, or *bundles*. The bundles almost always have 1, 2, 3, or 5 needles. Do these numbers look familiar?

petals, the brightly colored parts of a flower

But pine needles aren't nearly as interesting as pinecones. Find a pinecone. The hard little knobby parts are called *bracts*. (Make sure your pinecone is in good condition, with no missing bracts.) Turn the cone so you're looking at its base. Can you see how the bracts make spirals? There are clockwise spirals, and there are counterclockwise spirals. Follow one spiral as it winds all the way around the cone to the pointy end. Dab a little paint on each bract in that spiral. Now dab a different color on a spiral going in the other direction. You'll see that one spiral winds gradually, and the other one winds more steeply. How many of each type are there? Count them. Remember, it's not the number of bracts that you're counting; it's the number of spirals.



▲ If you count the clockwise or counterclockwise spirals on the bottom of a pinecone, you will get a Fibonacci number.

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Text Structure

Science articles often include experiments. Underline the first step and the last step in the pinecone experiment on this page. What does the author suggest you use to mark each bract in a spiral?



Comprehension Check

Underline the sentence that explains what a *bract* is. What is the relationship between a bract and a spiral?



Reading Strategy: Use Visuals

Visuals help you to better understand a text. Circle the images on this page. What do they show? How do they help you understand more about the Fibonacci sequence?



Text Structure

Science articles often include numbers or amounts. Circle all the numbers on this page that could describe the number of spirals on a pinecone. What else do these numbers have in common?



Comprehension Check

Underline the passage that tells where the Fibonacci sequence can be found on a sunflower, artichoke, and pineapple. What are the scales of a pineapple?



Reading Strategy: Use Visuals

Visuals can help you compare information. Draw boxes around the images on this page. How are seashells like pinecones?



Some pinecones have 3 gradual spirals and 5 steep spirals. Some have 5 gradual and 8 steep. Or 8 and 13. Or 13 and 21. A pinecone's spirals come in Fibonacci numbers. In fact, Fibonacci numbers are sometimes called "pinecone numbers."

Fibonacci numbers could also be called "sunflower numbers," "artichoke numbers," or "pineapple numbers" because you will find the numbers in spirals formed by a sunflower's seeds, an artichoke's leaves, and a pineapple's scales (the diamond-shaped markings on the outside).

Fibonacci strikes again!



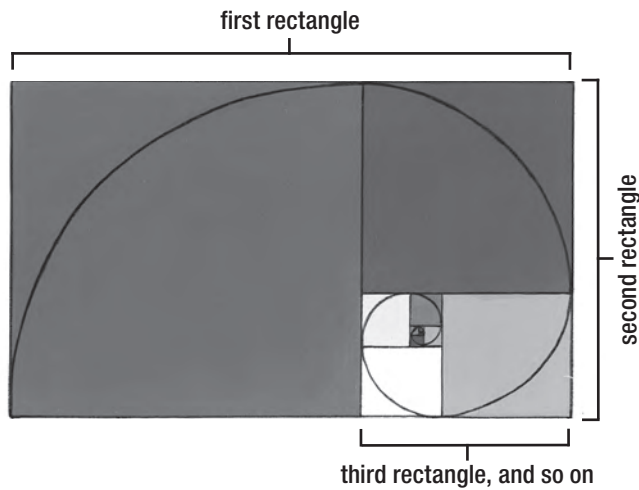
▲ These seashells have spirals that follow the Fibonacci sequence.

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No one really understands why Fibonacci numbers show up so much in nature. It's a mystery!

Here's another way that Fibonacci numbers are found in nature: They make a spiral that maintains a constant proportion all the way to infinity. To find that spiral, take a rectangle that has "Fibonacci" proportions, say $3" \times 5"$, then repeat that same proportioned rectangle, smaller and smaller . . .

maintains, continues in the same way
proportion, the amount of something compared to something else



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Choose one and complete:

1. Make a poster to show Fibonacci numbers. Explain how the sequence works.
2. Use reliable sources at the library or on the Internet to learn more about Fibonacci's findings. Write a one-page report on his work and life.
3. Make a drawing that shows how Fibonacci numbers appear in nature.

Comprehension Check

Underline the sentence that describes another way the Fibonacci numbers are found in nature. Describe how to find the spiral that keeps a constant proportion all the way to infinity.



Text Structure

Draw a box around the first highlighted word on this page. Look at the definition. Then use the word in a new sentence.



Reading Strategy: Use Visuals

Circle the diagram on this page. How does it help explain ideas in the text?



READING WRAP-UP

Retell It!

Write a short entry about Fibonacci for an encyclopedia. Explain who he was and what is important about the number sequence he discovered.

Reader's Response

Did the article make you think differently about the role of numbers in nature? If so, how did it change your thinking? If not, why?

Think About the Skill

How did using the visuals help you to better understand the article? Give some specific examples.

EDIT FOR MEANING

Read

You have read two sections from *G Is for Googol*. Now read one paragraph from it again.

F Is for Fibonacci

In his book, Fibonacci said that the people of Europe should stop using Roman numerals. He wanted everyone to switch to the numerals used in the Arabic world. Instead of writing LXXVIII, they could write 78. Isn't 78 easier to write than LXXVIII? Well, Fibonacci thought so, and because of him, we use Arabic numerals today.

The paragraphs below and on the next page contain the same information as the paragraph you just read. However, each contains one error. First, find the error. Then fix it by editing the sentence so that the information is correct. The first paragraph has been done for you.

Example. Find and fix the error.

F Is for Fibonacci

In his book, Fibonacci said that the ^{people of Europe} ~~rulers of Asia and Africa~~ should stop using Roman numerals. According to Fibonacci, everyone should change to using the numbers used in Arabic countries. For example, instead of writing LXXVIII, people could write 78. It seemed much easier to write 78 than LXXVIII. Because of Fibonacci, we use Arabic numerals today.

Fix the Error

1. Find and fix the error.

F Is for Fibonacci

In his book, Fibonacci argued that Europeans should stop using Roman numerals. He wanted everyone to switch to using Arabic numerals. Instead of writing LXXVIII, for example, people could write 78. Isn't 78 easier to write than LXXVIII? Well, Fibonacci thought so and others agreed. Partly because of him, Roman numerals are widely used today.

2. Find and fix the error.

F Is for Fibonacci

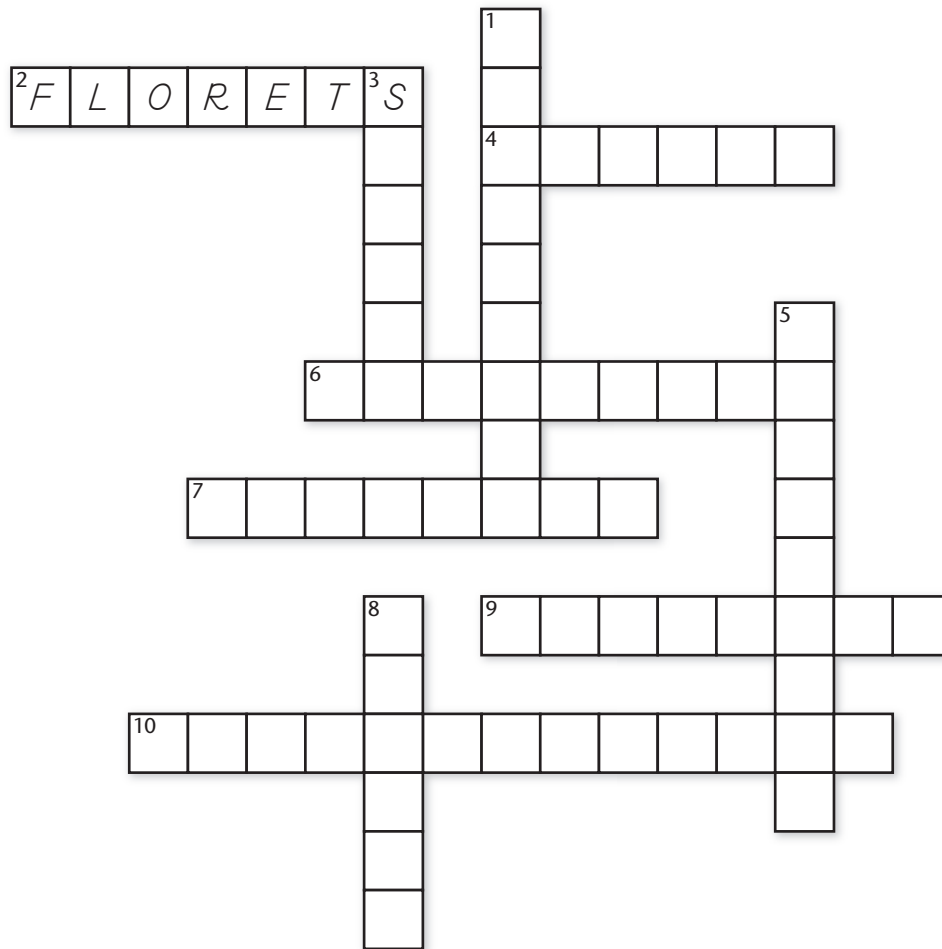
Fibonacci argued in his book that Europeans should stop using Roman numerals. Instead, he wanted everyone to switch to the numerals used in the Arabic world. Fibonacci wanted people to write LXXVIII instead of 78. Thanks to him, we use Arabic numerals today.



FOCUS ON DETAILS

Crossword Puzzle

To complete this crossword puzzle, you'll need to remember or search for details in the reading. Use the words in the word box to help you. Not all of the words in the word box are in the puzzle. Fill in the crossword with answers to the clues below. The first answer has been done for you.



SHELLS
BUNDLE
ROMAN NUMERALS
CLOCKWISE
FLORETS
BRACTS
FIBONACCI
RECTANGLE
SPIRAL
INFINITY
SEQUENCE
PINECONES

Across

2. The petal-like parts of some flowers
4. The hard, knobby parts of pinecones
6. Rotating in the direction that a clock's hands move
7. A space or distance without limits or an end
9. A collection of numbers in a particular order
10. Numbers like LXVI, instead of 66

Down

1. A 13th-century Italian mathematician
3. A shape that goes around and around as it goes up or down
5. A four-sided shape with right angles
8. A group of pine needles

READ FOR FLUENCY

1. Silently read the text below. Make sure you understand the point that each sentence is making.
2. Underline the word or words in each sentence that are most important. When you read, you should say these underlined words with expression.
3. Look again at the punctuation in the paragraphs. Remember that when a sentence ends in a period, you should read the words as a statement and take a breath before beginning a new sentence. When you see a comma, you should pause briefly. When you see an exclamation mark, you should sound excited. When you see a question mark, you should read as though you are asking a question.
4. Now read the paragraphs below out loud. Pay attention to the important words and punctuation as you read.
5. Write down any words that slowed you down. Practice saying these words out loud.
6. Read the text below out loud two more times. You may want to ask a friend or family member to listen to you and tell you their reactions to your reading.

N Is for Nature

Pine needles come in groups, or *bundles*. The bundles almost always have 1, 2, 3, or 5 needles. Do these numbers look familiar?

But pine needles aren't nearly as interesting as pinecones. Find a pinecone. The hard little knobby parts are called *bracts*. (Make sure your pinecone is in good condition, with no missing bracts.) Turn the cone so you're looking at its base. Can you see how the bracts make spirals? There are clockwise spirals, and there are counterclockwise spirals. Follow one spiral as it winds all the way around the cone to the pointy end. Dab a little paint on each bract in that spiral. Now dab a different color on a spiral going in the other direction. You'll see that one spiral winds gradually, and the other one winds more steeply. How many of each type are there? Count them. Remember, it's not the number of bracts that you're counting; it's the number of spirals.

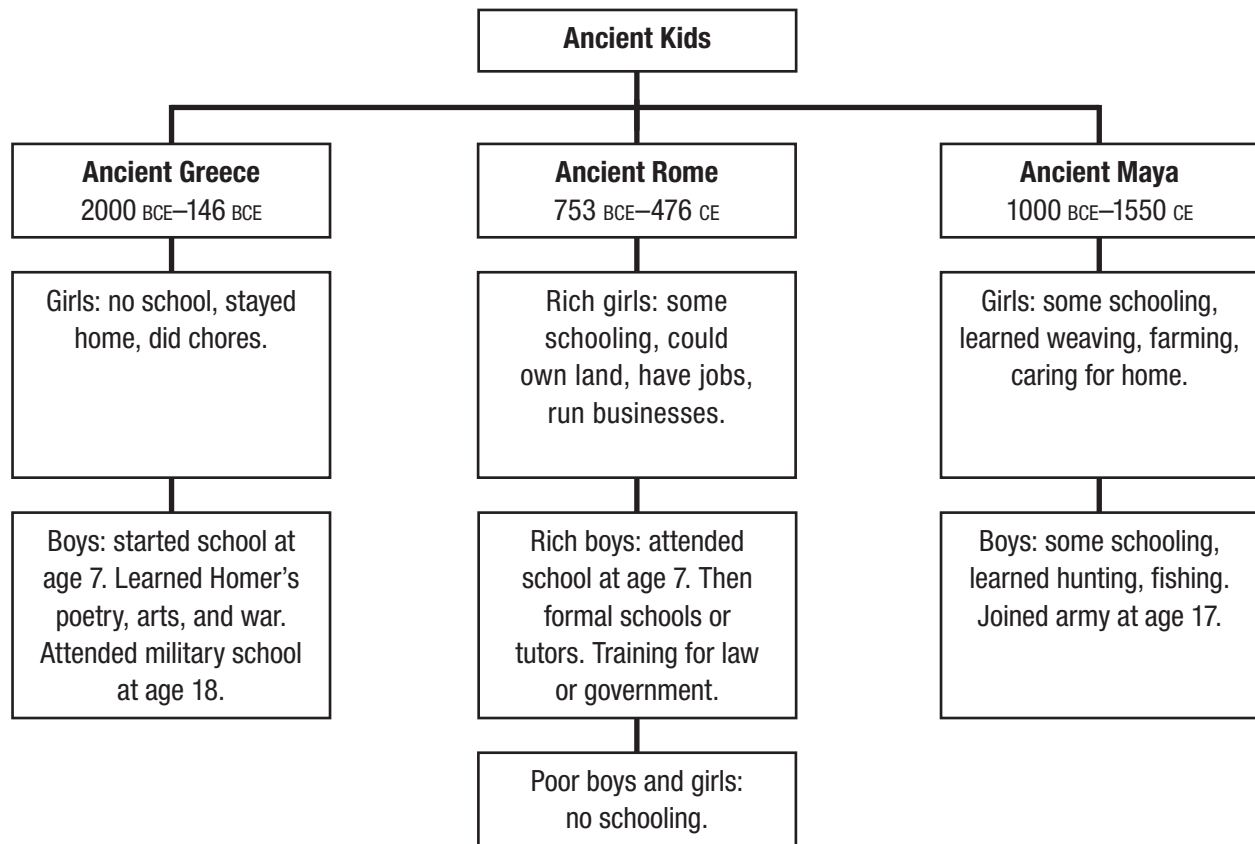
How does growing up change us?

“Ancient Kids”

SUMMARY

This passage tells what it was like to be a child in ancient Greek, Roman, and Maya cultures. It describes what happened when babies were born. It tells how boys and girls were raised differently. It also tells about education. In Greece, only boys went to school. In Rome, rich boys and girls went to school, but the boys stayed in school longer. In Maya culture, school was free. Both boys and girls went to school. In all these cultures, children played with toys and had pets. Some toys, games, and pets were the same from one culture to the next. Others were quite different.

Visual Summary



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Use What You Know

List three facts you know about the ancient Greeks, Romans, and Maya.

1. _____
2. _____
3. _____

Text Structure

Social studies articles often include timelines, which show important dates in history.



Locate the timeline on this page.

On the timeline, draw boxes around the beginning and ending dates for ancient Greece. About how long did the ancient Greek civilization last?

Reading Strategy: Compare and Contrast

When you compare and contrast, you tell how things are alike and different. Circle the



sentence that describes what families in ancient Greece did to decorate their homes when boys were born. Underline the type of decoration they put up when girls were born. Why do you think the ancient Greeks had different decorations for boys and girls?

Ancient Kids

Growing Up in Ancient Greece

ANCIENT GREECE

2000 B.C.E. 146 B.C.E. 0 2000 C.E.

When a baby was born in ancient Greece, the father performed a ritual. He did a dance, holding the newborn baby. For boy babies, the family decorated the house with wreaths of olives. For girl babies, the family decorated the house with wreaths made of wool.

There were many differences in the lives of boys and girls as they grew up. One main difference was that girls did not go to school and boys did. Some girls learned to play musical instruments.

Mostly, girls helped their mothers with chores in the house or in the fields. They didn't leave their houses very often. Sometimes they went to festivals or funerals. They also visited neighbors.

Girls stayed home with their parents until they got married. Girls' fathers usually decided whom the girls would marry.

Boys stayed home until they were six or seven years old. They helped grow crops in the fields, and they learned to sail boats and to fish.

decorated, made something look more attractive by adding things to it
wreaths, circles made from flowers, plants, or leaves
instruments, objects used for making music
chores, small jobs
crops, wheat, corn, fruit, and so on, that a farmer grows

When boys were about seven years old, they started their **formal education**. They went to school and learned reading, writing, and mathematics. They had to memorize everything because there were no school books! They memorized the poetry of Homer, a famous poet. They also learned to play a musical instrument, such as the **lyre**.

At school, boys learned about the arts and war. They also learned how to be good citizens. At the age of eighteen, boys went to **military school** for two years.

Children played with many toys, such as rattles, clay animals, pull-toys on four wheels, yo-yos, and **terra-cotta** dolls. Children also had pets, such as birds, dogs, goats, **tortoises**, and mice.

Growing Up in Ancient Rome

ANCIENT ROME



ANCIENT GREECE



When a Roman baby was born, a relative put the baby at the feet of the father. The father picked up the baby to accept it into the family. The baby was named nine days after birth.

formal education, education in a subject or skill that you get in school rather than by practical experience
lyre, an ancient instrument, similar to a guitar
military school, school where students learn to fight in wars
terra-cotta, baked red clay
tortoises, land animals that move very slowly, with a hard shell covering their bodies

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Reading Strategy: Compare and Contrast

Circle how old ancient Greek boys were when they started school. List three differences between what students did in school then and what students do in school now.



1. _____
2. _____
3. _____

Comprehension Check

Underline what boys did when they turned 18. Why do you think that this was necessary?



Text Structure

Circle the two bars on the timeline. Which lasted longer—the ancient Greek or the ancient Roman culture? How do you know?



Reading Strategy: Compare and Contrast

Underline what life was like for a woman in the early days of Rome. Then list three ways life was different for women in Rome's later years.



1. _____
2. _____
3. _____

Comprehension Check

Circle what boys and girls both wore in ancient Rome. Why did they wear a bulla? When did they take it off?



Text Structure

A social studies article often has highlighted words. Their definitions are at the bottom of the page. Draw a box around the last highlighted word on this page. Look at its definition. Then use the word in a new sentence.



The oldest man in a family—the father, the grandfather, or an uncle—was the “**head of the family**.” However, women were also important to family life. They **managed** the house and household **finances**. In the early years of ancient Rome, women did not have many rights. In later years, they had more rights. They were allowed to own land and to have some types of jobs. They could manage some businesses, but they were still not allowed to hold jobs in the government or to become lawyers or teachers.

Girls and boys wore a special **locket**, called a *bulla*, around their necks. The bulla protected them from evil. A girl wore the bulla until her wedding day. A boy wore the bulla until he became a citizen. A boy became a citizen at age sixteen or seventeen. The family had a big celebration on this day.

Some Greeks lived in southern Italy and Sicily. The ancient Greeks had a cultural **influence** on the Romans. Greek teachers introduced the Romans to the Greek gods and goddesses and to Greek literature and philosophy.

School was not free. Most children in ancient Rome were not from rich families. They were poor. In poor families, parents taught their children at home. Many poor children did not learn to read or write.

-
- head of the family**, person who is in charge of the family
managed, controlled or directed
finances, money matters
locket, piece of jewelry like a small round box in which you put a picture of someone
influence, effect

Rich families sent their children to school at age seven to learn basic subjects. Girls did not continue in school after they learned the basic subjects. They stayed at home, where their mothers taught them how to be good wives and mothers.

Boys from rich families continued their education in formal schools or with **tutors**. They became lawyers or worked in government.

What did children do after school? They played with friends, pets, or toys. Toys included balls, hobbyhorses, kites, **models** of people and animals, hoops, **stilts**, marbles, and knucklebones. War games were popular with boys. Girls played with dolls. They also played board games, tic-tac-toe, and ball games.

What kind of pets did children play with in ancient Rome? Dogs were the favorite pets. Roman children also kept birds—pigeons, ducks, **quail**, and geese—as pets. Some children even had pet monkeys.

tutors, teachers of one student or a small group of students

models, small copies

stilts, a pair of poles you can stand on, used for walking high above the ground

quail, small fat birds that are hunted and shot for food and sport

Reading Strategy: Compare and Contrast

Circle the age at which rich Roman children went to school. What is the difference between how girls and boys were educated?



Text Structure

Draw a box around the second highlighted word on this page. Look at its definition. Then use the word in a new sentence.



Comprehension Check

Underline the favorite pet of children in ancient Rome. Then name three Roman pets that are not so common today.



1. _____
2. _____
3. _____

Text Structure

Social studies includes geography, the study of places around the world. Circle the names of countries where the ancient Maya once lived. How do we know that they built cities there long ago?



Reading Strategy: Compare and Contrast

Compare and contrast the roles of men and women in ancient Maya society. What was one difference in their roles?

Comprehension Check

Underline what happened to an ancient Maya boy when he was five years old. Then circle two more things young men did before they married. What is one tradition a modern-day culture has for young men today?



Growing Up in the Ancient Maya Culture

ANCIENT MAYA



ANCIENT ROME



ANCIENT GREECE



The Maya lived throughout parts of southern Mexico and Central America, including Belize and Guatemala. They built large cities and created extraordinary art and architecture. You can visit the **ruins** of some ancient Maya cities, such as Chichén Itzá in Mexico's Yucatan region.

In Maya culture, the father was the head of the family. Maya men worked hard to support their families, and they paid **taxes** to the government. Women in Maya society cooked, made cloth, sewed clothing, and took care of the children.

When a boy was about five years old, the Maya tied a small white bead to the top of his head. When a girl was about five, the Maya tied a red shell around her waist. When boys and girls were twelve or thirteen years old, the village had a big ceremony that marked the end of childhood. During the ceremony, a priest cut the beads from the boys' heads. Mothers removed the red shells from the girls' waists. After the ceremony, boys and girls could get married. Young men painted themselves black until they were married.

ruins, the parts of buildings that are left after other parts have been destroyed
taxes, money that must be given

Maya boys and girls, unlike Roman children, did not have to pay to go to school. They learned from their parents, too. Girls learned how to weave and cook. Boys learned to hunt and fish. Children also learned how to grow crops, such as corn. At age seventeen, boys joined the army to learn about war and fighting.

Children played games and they played with toys. Some of their toys had wheels. Surprisingly, the Maya did not use wheels in their work or transportation. However, toys, such as animal pull-toys, had wheels.

Animals were important in everyday life and religion. The Maya used animals in their art. They decorated various items with pictures of foxes, owls, jaguars, hummingbirds, eagles, and other animals. The Maya sometimes ate dogs, but they mainly used dogs for hunting. The Maya thought that dogs could guide people on the journey to the afterlife. This is why they buried dogs with their owners.

jaguars, large wild cats with black spots
guide, show the way to
afterlife, the life that some people believe you have after death

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Choose one and complete:

1. Write a short play about the daily life of a boy or girl in one of the ancient cultures in this article. You can use resources such as the Internet or encyclopedias to find more details for your play.
2. Look at the timelines in this article. Then create a single timeline that shows when the ancient Greek, Roman, and Maya cultures all lived.
3. Create a poster about the cultures of the ancient Greeks, Romans, or Maya. Include details about the lives of these ancient people.

**Reading Strategy:
Compare and Contrast**

Circle the sentence that tells one way Maya children were different from Roman children. What is one way they were the same?



Comprehension Check

Underline the sentence that names some animals the Maya included in their art. Why might animals have been so important to the Maya?



Text Structure

Draw a box around the second highlighted word on this page. Look at its definition. Then use the word in a new sentence.



READING WRAP-UP

Retell It!

Write a letter from a child in one of the ancient cultures in this article to a friend living in a different culture. Explain what your daily life is like and how it is different from your friend's life.

Reader's Response

Which of the three cultures was the most interesting to you? Why do you find that culture the most interesting?

Think About the Skill

How did comparing and contrasting help you to better understand this article?

EDIT FOR MEANING

Read

You have read “Ancient Kids.” Now read one paragraph from it again.

Growing Up in Ancient Rome

The oldest man in a family—the father, the grandfather, or an uncle—was the “head of the family.” However, women were also important to family life. They managed the house and household finances. In the early years of ancient Rome, women did not have many rights. In later years, they had more rights. They were allowed to own land and to have some types of jobs. They could manage some businesses, but they were still not allowed to hold jobs in the government or to become lawyers or teachers.



Fix the Error

Each paragraph below contains the same information as the paragraph you just read. However, each paragraph contains one error. First, find the error. Then fix it by editing the sentence so that the information is correct.

1. Find and fix the error.

Growing Up in Ancient Rome

A family's oldest man was the "head of the family." It could be a father, grandfather, or uncle. Women were also important to family life. They managed the house and the household money. In the early years of ancient Rome, women had many rights. They could own land and work at jobs. They could even manage their own businesses, but they could not hold jobs in the government, law, or teaching.

2. Find and fix the error.

Growing Up in Ancient Rome

The "head of the family" was the oldest man in the family—father, grandfather, or uncle. Women were also valuable family members. They managed the house and its finances. In early Rome, women had few rights, but later that changed. They were allowed to own their own land and could work outside the home. They could manage some businesses and become teachers, but they could not work in the government or become lawyers.

FOCUS ON DETAILS

Word Search Puzzle

To complete this word search puzzle, you'll need to remember or search for details in the reading. Write the word from the text next to each clue. Then circle the answers in the puzzle below.

1. When boys were born, ancient Greeks put up wreaths made of these olives
2. The name of a famous Greek poet _____
3. Something that Greek students had to do to learn in school _____
4. Culture that influenced Rome _____
5. What a Roman boy became at 16 or 17 _____
6. A Roman locket worn by boys and girls _____
7. A job for rich Romans _____
8. Animal pull-toys in ancient Maya had these _____
9. Maya girls learned to do this _____
10. A country where the Maya culture existed _____

J	S	E	W	B	V	O	M	V	E	U	I	L	A	P
B	P	F	F	M	U	G	F	V	T	E	H	A	Y	L
C	R	M	K	E	D	L	O	T	A	I	C	W	M	O
S	O	L	E	Q	B	J	L	L	R	L	K	Y	D	L
A	H	R	A	M	J	Y	A	A	S	K	J	E	K	I
G	R	E	E	K	O	M	A	N	L	S	P	R	Q	V
Z	L	T	J	W	E	R	A	N	C	K	U	I	K	E
D	Y	F	Q	T	W	P	I	B	B	Y	A	D	M	S
Z	G	A	A	X	Q	E	T	Z	W	T	G	N	Z	N
Z	M	U	U	C	L	W	A	N	E	N	U	G	G	R
X	G	Y	C	K	U	T	Q	V	B	I	Y	Y	E	E
V	F	U	E	X	N	H	K	G	E	Z	S	M	A	R
C	I	T	I	Z	E	N	C	K	Y	X	O	H	U	Y
H	Q	G	T	Y	H	Q	T	P	O	H	G	N	M	L
V	Y	I	W	H	E	E	L	S	B	K	J	G	I	D

READ FOR FLUENCY

1. Silently read the text below. Make sure you understand the point that each sentence is making.
2. Underline the word or words in each sentence that are most important. When you read, you should say these underlined words with expression.
3. Look again at the punctuation in the paragraphs. Remember that when a sentence ends in a period, you should read the words as a statement and take a breath before beginning a new sentence. When you see a comma, you should pause briefly. When you see an exclamation mark, you should sound excited. When you see a question mark, you should read as though you are asking a question.
4. Now read the paragraphs below out loud. Pay attention to the important words and punctuation as you read.
5. Write down any words that slowed you down. Practice saying these words out loud.
6. Read the text below out loud two more times. You may want to ask a friend or family member to listen to you and tell you their reactions to your reading.

Growing Up in Ancient Rome

What did children do after school? They played with friends, pets, or toys. Toys included balls, hobbyhorses, kites, models of people and animals, hoops, stilts, marbles, and knucklebones. War games were popular with boys. Girls played with dolls. They also played board games, tic-tac-toe, and ball games.

What kind of pets did children play with in ancient Rome? Dogs were the favorite pets. Roman children also kept birds—pigeons, ducks, quail, and geese—as pets. Some children even had pet monkeys.

How does growing up change us?

“Amazing Growth Facts”

SUMMARY

“Amazing Growth Facts” tells interesting facts about how living things grow. People and different kinds of plants and animals grow at different rates. Some things, such as bamboo, kelp, kangaroos, and crocodiles, grow very quickly. Others, such as clams, grow very slowly.

Visual Summary

AMAZING GROWTH FACTS		
Facts About Plants	Facts About Animals	Facts About People
A tiny acorn grows into an enormous oak tree.	Adult kangaroos weigh 30,000 times more than baby kangaroos.	The average human baby is 50 cm long and weighs 3.4 kilos.
Bamboo can grow to the height of a three-year-old child in one day.	Eggs of golden eagles and Nile crocodiles are the same size, but adult crocodiles are much larger than adult eagles.	On average, adults grow to be 3.4 times longer and 21 times heavier than they were as babies.
Pacific kelp grows to 60 m, compared to people who grow to about 1.75 m.	Deep-sea clams take 100 years to grow as large as a fingernail.	Each person eats enough food in his or her lifetime to equal the weight of 6 elephants.

Use What You Know

List three ways people change as they grow from infants to adults.

1. _____
2. _____
3. _____

Text Structure

A science article often has highlighted words. Their definitions are at the bottom of the page. Draw a box around the highlighted word on this page. Look at its definition. Reread the sentence in which the word appears. Then rewrite the sentence without using the word.



Reading Strategy: Use Visuals

Visuals can help readers to better understand an article. Look at the diagram on this page. Circle how tall Pacific kelp grows. What can you understand about the average man compared to the two plants shown in the visual?



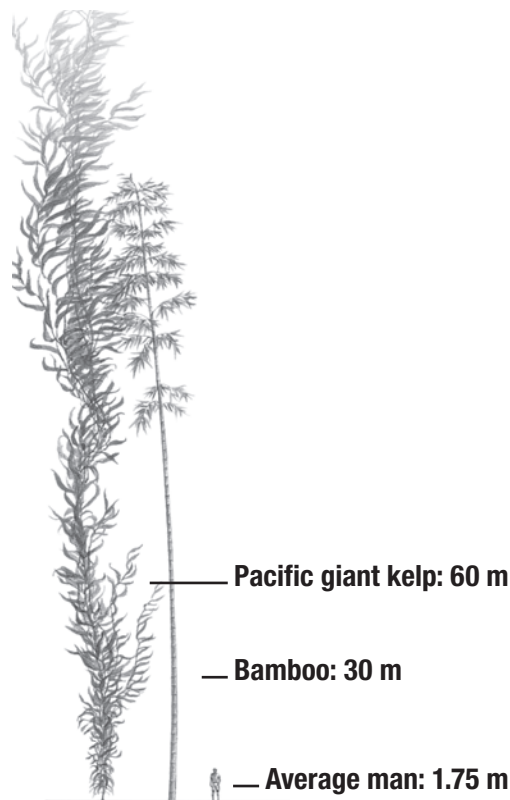
Amazing Growth Facts

It is one of the wonders of nature that all living things **increase** in size. Think about how a tiny acorn can grow into an enormous oak tree. Growth occurs at different rates. Sometimes growth is very fast. Other times it is very slow.

The average newborn baby is 50 centimeters long and weighs 3.4 kilograms. When the baby grows up and becomes an adult, he or she increases on average to 3.4 times that length and 21 times that weight. Girls and boys are about the same height and weight until early adulthood. Then boys usually grow taller and weigh more than girls.

Bamboo can grow 90 centimeters in one day—the height of an average three-year-old child. Pacific giant kelp (a kind of seaweed) can grow as much as 45 centimeters in one day.

increase, become bigger

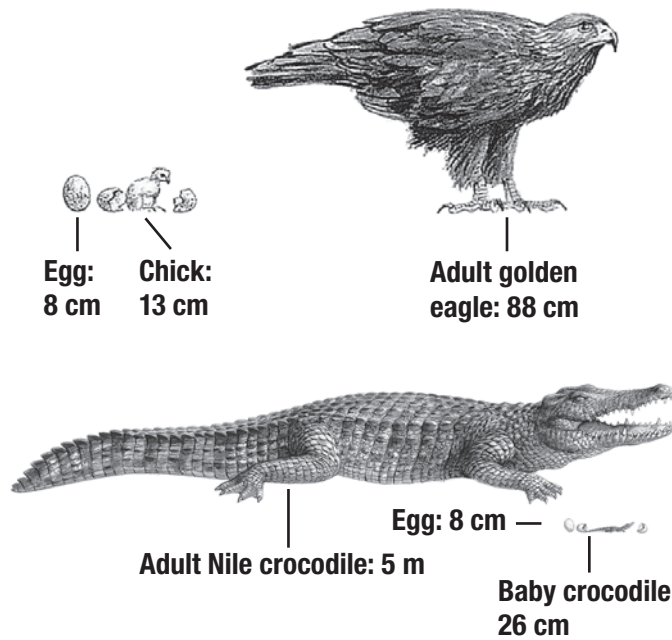


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An ant can lift more than 100 times its weight. One hundred times the weight of a 64-kilogram person would be the same weight as three cars!

A baby kangaroo is the size and weight of a paper clip (1 gram). An adult kangaroo is 30,000 times heavier (30 kilograms). If a human grew at this rate, a 3.4-kilogram baby would weigh 102,000 kilograms as an adult—that's as much as a large whale! An average man weighs about 80 kilograms.

The egg of a golden eagle and the egg of a Nile crocodile are both 8 centimeters long. But look how much bigger the crocodile grows!



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Comprehension Check

Underline how much weight an ant can lift. How do you think our lives would be different if humans could lift that much?



Text Structure

Science articles often present information with comparisons and contrasts to help readers understand similarities and differences. Circle the sentence that compares 1 gram to an object. List three other objects that weigh about 1 gram.



1. _____
2. _____
3. _____

Reading Strategy: Use Visuals

Visuals can present information in a different way. Look at the diagram. Draw boxes around the sizes of the golden eagle and Nile crocodile eggs. How do eagle chicks and baby crocodiles compare in size?



Text Structure

Science articles often present information in the form of numbers or amounts. Circle the length of a baby crocodile and the height of a human baby. How do baby crocodiles and human babies compare in size? How tall would a person become if he or she grew at the same rate as a Nile crocodile?



Comprehension Check

Underline how long it takes a deep-sea clam to grow as big as your fingernail. Why might it take so long for a deep-sea clam to grow?



Reading Strategy: Use Visuals

A visual, such as a chart, can provide important information. What information does the chart on this page show? Why is it helpful to include the chart in this article?

A 26-centimeter baby crocodile can grow into a 5-meter adult crocodile. If humans grew at the same rate as Nile crocodiles, a 50-centimeter baby would grow into a 9.5-meter adult—more than 5 times as tall as the average person!

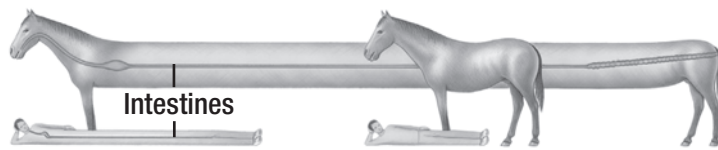
Clams are among the longest living and slowest growing of all creatures. A deep-sea clam takes 100 years to grow 8 millimeters. That's as big as your fingernail!

Conversion Chart

Metric		U.S. Customary Units
1 millimeter	=	0.039 inch
1 centimeter	=	0.39 inch
1 meter	=	3.28 feet
1 gram	=	0.035 ounce
1 kilogram	=	2.2 pounds

In the average human life of 70 years, a heart pumps enough blood around the body to fill the fuel tanks of 700 jumbo jets. The food that we eat in our lifetime is equal in weight to the weight of six elephants! A horse's intestines are about 27 meters long. A human's intestines are about 7.5 meters long. Luckily, the intestines are curled up inside the body. Otherwise, people and horses would look very strange!

jumbo jets, very large airplanes
intestines, tubes that take food from the stomach out of the body



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Choose one and complete:

1. Do research to learn more facts about growth. Make a list of the most amazing growth facts you find.
2. Use the information in this article to create your own children's book of amazing growth facts.
3. Create a skit demonstrating some of the facts in this article. You can use props such as string to show height or length.

Text Structure

Draw a box around the first highlighted term in the first paragraph on this page. Look at the definition. Then use the term in a new sentence.



Comprehension Check

Underline the sentence that explains how much food a person eats in a lifetime. Did that comparison surprise you? Why or why not?



**Reading Strategy:
Use Visuals**

Circle the length of horse intestines and the length of human intestines. How does the diagram help you see the difference between the length of human and horse intestines?



READING WRAP-UP

Retell It!

Imagine you are writing a description of a TV nature show based on this article. What would you write to get viewers to tune in to the *Amazing Growth Facts* TV show?

Reader's Response

Which fact in this article did you find the most strange and surprising? What is it about this fact that made you feel this way?

Think About the Skill

How did using visuals help you better understand the article?

EDIT FOR MEANING

Read

You have read "Amazing Growth Facts." Now read one paragraph from it again.

Amazing Growth Facts

The average newborn baby is 50 centimeters long and weighs 3.4 kilograms. When the baby grows up and becomes an adult, he or she increases on average to 3.4 times that length and 21 times that weight. Girls and boys are about the same height and weight until early adulthood. Then boys usually grow taller and weigh more than girls.



Fix the Error

Each paragraph below contains the same information as the paragraph you just read. However, each paragraph contains one error. First, find the error. Then fix it by editing the sentence so that the information is correct.

1. Find and fix the error.

Amazing Growth Facts

The average newborn baby weighs 3.4 kilograms and is about 50 centimeters long. As the baby grows, he or she increases to 3.4 times that length. When the baby becomes an adult, his or her weight has decreased to about 21 times a baby's weight at birth. As children, girls and boys are about the same in size. That changes when they reach early adulthood. Then boys usually grow taller and weigh more than girls.

2. Find and fix the error.

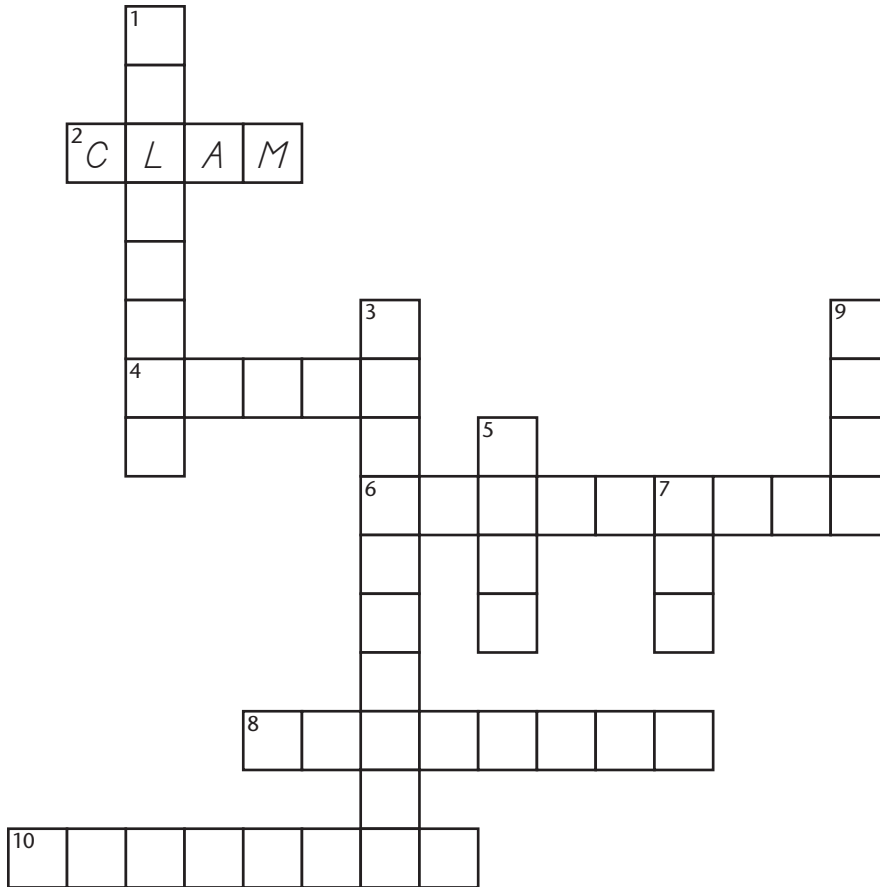
Amazing Growth Facts

The average newborn baby is 50 centimeters long. Average newborns also weigh about 3.4 kilograms. When the baby becomes older, he or she grows to about 3.4 times that length. As an adult, he or she also weighs 21 times as much as a newborn. Girls and boys are about the same height, but they weigh different amounts until early adulthood. At that time, boys usually grow taller and weigh more than girls.

FOCUS ON DETAILS

Crossword Puzzle

To complete this crossword puzzle, you'll need to remember or search for details in the reading. Use the words in the word box. Not all of the words in the word box are in the puzzle. Fill in the crossword with answers to the clues below.



ACORN
CROCODILE
KANGAROO
ANT
ELEPHANTS
KELP
INCREASE
INTESTINES
KILOGRAM
CLAM
JETS
NILE

Across

2. This sea creature takes 100 years to grow
4. An enormous oak tree grows from this
6. The amount of food a human eats in a lifetime equals six of these
8. This animal is the size of a paper clip when it's born
10. To get bigger

Down

1. A measure of weight equal to 2.2 pounds
3. Long tubes that curl up inside of bodies
5. A kind of fast-growing seaweed
7. An insect that can lift 100 times its weight
9. Fast airplanes

READ FOR FLUENCY

1. Silently read the text below. Make sure you understand the point that each sentence is making.
2. Underline the word or words in each sentence that are most important. When you read, you should say these underlined words with expression.
3. Look again at the punctuation in the paragraphs. Remember that when a sentence ends in a period, you should read the words as a statement and take a breath before beginning a new sentence. When you see a comma, you should pause briefly. When you see an exclamation mark, you should sound excited. When you see a question mark, you should read as though you are asking a question.
4. Now read the paragraphs below out loud. Pay attention to the important words and punctuation as you read.
5. Write down any words that slowed you down. Practice saying these words out loud.
6. Read the text below out loud two more times. You may want to ask a friend or family member to listen to you and tell you their reactions to your reading.

Amazing Growth Facts

Clams are among the longest living and slowest growing of all creatures. A deep-sea clam takes 100 years to grow 8 millimeters. That's as big as your fingernail!

In the average human life of 70 years, a heart pumps enough blood around the body to fill the fuel tanks of 700 jumbo jets. The food that we eat in our lifetime is equal in weight to the weight of six elephants! A horse's intestines are about 27 meters long. A human's intestines are about 7.5 meters long. Luckily, the intestines are curled up inside the body. Otherwise, people and horses would look very strange!

How does helping others help us all?

“Extraordinary People: Serving Others”

SUMMARY

This passage tells about heroes who have helped change the world. Benito Juárez became the first native Indian president of Mexico. He made Mexico a fairer, more modern country. During the Crimean War, Florence Nightingale went to Turkey with nurses from her hospital. She helped many sick and wounded soldiers. Mohandas Gandhi’s ideas about nonviolent protest have influenced many. Helen Keller was blind and deaf but she learned to communicate. American president Franklin Delano Roosevelt had the disease polio. However, he helped his country during the Great Depression and World War II. Doctors Without Borders is a volunteer organization. It won the Nobel Peace Prize for helping victims of war, disease, and natural disasters.

Visual Summary

Benito Juárez	Improved education in Mexico so that every child could go to school. Made Mexico more fair and modern.
Florence Nightingale	Helped wounded soldiers and started a school for nurses.
Mohandas Gandhi	Helped achieve independence in India. Demonstrated how nonviolent protest could be used to bring about change.
Franklin Delano Roosevelt	Created jobs for people during the Great Depression. Helped the United States and the Allies win World War II.
Helen Keller	Learned to communicate even though she was blind and deaf. Inspired people not to give up when things are difficult.
Doctors Without Borders	Provides medical help to victims of war, disease, and natural disasters.

Use What You Know

List three people you know who help others.

1. _____
2. _____
3. _____

Text Structure

The title of an article tells you what to expect when you read. Circle the title on this page. What do you think the article will be about?



Reading Strategy: Identify Problems and Solutions

Identifying problems and solutions can help you understand what you read. Underline the sentence that describes how Benito Juárez improved Mexico. What problems did Benito Juárez help solve?



Extraordinary People: Serving Others

In different places and at different times, people have achieved extraordinary things. In the short biographies that follow, you will read about people from different times in history who helped others in many ways. You will also read about a group of people who continue to do extraordinary things in troubled parts of the world today.

Benito Juárez

Benito Juárez (1806–1872) is a national hero in Mexico. He was the son of poor Zapotec Indian farmers in the state of Oaxaca, Mexico. At age thirteen he couldn't read, write, or speak Spanish. He trained to become a priest, but later he decided to become a lawyer. As a young man, he became interested in **social justice**, especially the rights of native peoples. He was very popular among the native Indian population. In 1847, he was elected governor of Oaxaca.

In 1861, Juárez became the first Zapotec Indian president of Mexico. He improved education. For the first time, it was possible for every child to go to school. He stopped the French from **colonizing** Mexico. His many **reforms** made Mexico a fairer, more modern society.

social justice, fairness for all people
colonizing, controlling a country and sending your own people to live there
reforms, changes that improve a system

Florence Nightingale

Florence Nightingale (1820–1910) came from a **wealthy** English family. Against her parents' wishes, she became a nurse.

In 1853, she became superintendent of a hospital for women in London. In 1854, Britain, France, and Turkey fought against Russia in the Crimean War. Nightingale volunteered to go to Turkey to help. She took thirty-eight nurses with her. They helped many wounded soldiers recover. Nightingale often visited the soldiers at night, carrying a lamp. Soldiers called her “the lady with the lamp.”

When Nightingale returned to England, she started a school for nurses. The school still exists today.

Mohandas Gandhi

Mohandas Gandhi (1869–1948) was born in the coastal city of Porbandar, in the western part of India. At that time, India was a British colony. Gandhi went to England in 1888 and studied law. He returned to India and worked as a lawyer in Bombay (Mumbai).

wealthy, very rich

Comprehension Check

Underline the sentence that tells what Florence Nightingale did against her parents' wishes.



Why might she have chosen to do this with her life?

Reading Strategy: Identify Problems and Solutions

Circle the sentence that tells what Florence Nightingale did when the Crimean War broke out. What problem was she helping to solve?



Text Structure

Social studies articles often give the year when a person was born and the year he or she died. Circle the year when Gandhi died. How old was he when he died?



Reading Strategy: Identify Problems and Solutions

Underline the sentence in the first paragraph that explains apartheid. What was Gandhi's response to this problem?



Comprehension Check

Circle two violent things that the text says happened to Gandhi. Why do you think Gandhi thought nonviolent protest was best?



Text Structure

Important words are often highlighted in social studies articles. Their definitions are provided at the bottom of the page. Circle the highlighted word in the third paragraph. Write a new sentence using the word.



In 1893, Gandhi traveled to South Africa. The government of South Africa had a system of racial separation, called **apartheid**. A group of white South Africans attacked Gandhi and beat him. After this experience, he encouraged people to practice passive resistance against the South African authorities and apartheid.

After he returned to India in 1915, Gandhi became a leader in India's struggle for independence. He became the international symbol of nonviolent protest. He believed in religious tolerance. In 1947, Britain finally ended its 190-year rule in India. Then, in 1948, Gandhi was assassinated by someone who didn't agree with his beliefs.

Gandhi **inspired** nonviolent movements elsewhere. In the United States, Dr. Martin Luther King Jr. used passive resistance when he became leader of the civil rights movement in the 1950s and 1960s.

apartheid, a system in which different races in a country are separated
inspired, caused; influenced people to express interest in

Franklin Delano Roosevelt

Franklin Delano Roosevelt (1882–1945) was elected as the thirty-second president of the United States in 1932. During the 1930s, the country was experiencing deep **economic** troubles. This period in American history is called the Great Depression. Banks shut down, workers lost their jobs, and farms failed. Roosevelt declared that Americans had “nothing to fear but fear itself.” He put into place a series of new government programs that brought hope to the American people. Many people returned to work.


Roosevelt soon faced another challenge. The Second World War in Europe and the Pacific began in 1939. Great Britain, France, Russia, and other countries (the Allies) fought against Germany and Japan. In 1941, the Japanese bombed Pearl Harbor in Hawaii. Roosevelt declared war on Japan, and the United States entered the war. The United States and the Allies fought many brave battles and eventually won the war in 1945.

Roosevelt faced personal challenges as well. He came down with **polio** at the age of thirty-nine, and lost the use of his legs. However, Roosevelt did not allow his physical condition to prevent him from contributing to society. Roosevelt is now considered by many historians to be one of the greatest U.S. presidents.


economic, relating to business, industry, and managing money

polio, an infectious disease of the nerves in the spine that can cause paralysis


Reading Strategy: Identify Problems and Solutions

The Great Depression was a huge problem for the United States.  **Mark the Text**
Underline the sentence that tells what happened during the Great Depression. What was President Roosevelt’s solution to this problem?

Comprehension Check

Circle Roosevelt’s words that are quoted on this page. What do you think Roosevelt meant by these words?  **Mark the Text**

Text Structure

The last sentence of a section often sums up the main idea of that section. Underline the last sentence on this page. In your own words, why is Roosevelt considered one of the greatest U.S. presidents?  **Mark the Text**

Reading Strategy: Identify Problems and Solutions

Underline what the text says happened to Helen Keller because of her illness when she was young. How did Helen Keller and Anne Sullivan solve the problems caused by this early illness?



Comprehension Check

Underline what the text says about how Helen Keller helped others. In what way did she inspire others?



Text Structure

Social studies articles often have highlighted words. Their definitions are provided at the bottom of the page. Circle the highlighted word in the last paragraph. Look at its definition. Reread the sentence in which it appears. Rewrite the sentence without using the highlighted word.



Helen Keller

Helen Keller (1880–1968) was nineteen months old when she became sick with a fever. The sickness left her without sight or hearing. Because she was so young when this happened, it was hard for her to learn to communicate. Because she could not see, she was unable to use sign language—the language of hearing-impaired people. She also couldn’t “read lips,” as many hearing-impaired people do. Although these challenges made young Helen very frustrated, she was also extremely intelligent. With the help of a skilled teacher, named Anne Sullivan, she learned that everything had a name and that these names were words. Because of the help of others and her own determination, she was eventually able to learn different ways to communicate. For instance, she learned to “hear” and understand speech by touching a speaker’s lips and throat.

Keller gave lectures (with her teacher’s help) and wrote a number of books. Her public talks and her writings inspired countless people with hearing, sight, and other physical problems. She inspired others to not give up in the face of adversity. Keller also toured the world. She raised funds for programs to help people with impaired hearing and sight. To this day, Helen Keller remains a figure of inspiration.

impaired, damaged, or less strong, or less good
frustrated, upset because you can’t do something
adversity, difficulties or problems

Doctors Without Borders

Doctors Without **Borders** is an international organization whose members believe that every person in every country has the right to medical care. It helps victims of war, disease, and natural disasters. A small group of French doctors started Doctors Without Borders (Médecins Sans Frontières) in 1971. Each year, thousands of volunteer doctors, nurses, and **administrators** from countries all over the world provide medical aid to people in more than seventy countries. They provide health care, perform surgery, organize **nutrition** and **sanitation** programs, train local medical staff, and provide mental health care.

Doctors Without Borders works with the United Nations, governments, and the media to tell the world about their patients' suffering and concerns. For example, Doctors Without Borders volunteers told the media about the **atrocities** they saw in Chechnya, Angola, and Kosovo.

Doctors Without Borders won the Nobel Peace Prize in 1999. Accepting the award, one of the organization's founders, Bernard Kouchner, said, "I'm deeply moved, and I'm thinking of all the people who died without aid, of all those who died waiting for someone to knock on their door."

borders, official lines that separate two countries
administrators, people who manage businesses or organizations
nutrition, food for good health and growth
sanitation, hygiene; cleanliness
atrocities, extremely violent actions

Text Structure

Social studies articles often include headings that tell you what a section is about.



Circle the heading on this page. What question do you think this section will answer?

Reading Strategy: Identify Problems and Solutions

Doctors Without Borders solves a problem for people all over the world.



Underline three sentences that describe ways in which Doctors Without Borders solves this problem. In your own words, describe what Doctors Without Borders does.

Choose one and complete:

1. Use library sources or the Internet to learn more about one of the people in this article. Prepare a one-page report and present it to your class.
2. Brainstorm with a group about ways students like you can help other people. Make a list of the group's ideas.
3. Write a short song about one of the people described in the article.

READING WRAP-UP

Retell It!

Imagine you are a friend of one of the people in this article. Write a paragraph describing your friend's career.

Reader's Response

Sometimes people help others even though it puts them in danger. Do you think you would be able to do that? Why or why not?

Think About the Skill

How did identifying problems and solutions help you better understand the article?

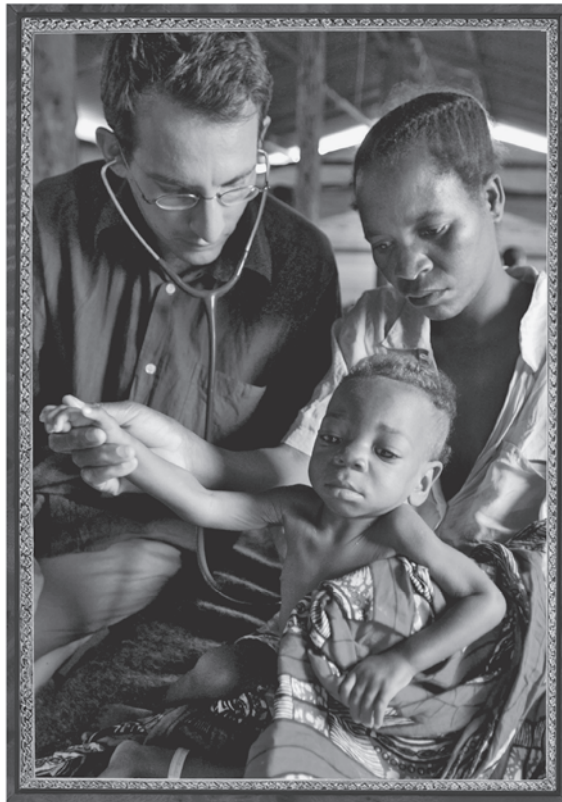
EDIT FOR MEANING

Read

You have read “Extraordinary People: Serving Others.” Now read one paragraph from it again.

Doctors Without Borders

Doctors Without Borders is an international organization whose members believe that every person in every country has the right to medical care. It helps victims of war, disease, and natural disasters. A small group of French doctors started Doctors Without Borders (Médecins Sans Frontières) in 1971. Each year, thousands of volunteer doctors, nurses, and administrators from countries all over the world provide medical aid to people in more than seventy countries. They provide health care, perform surgery, organize nutrition and sanitation programs, train local medical staff, and provide mental health care.



Fix the Error

Each paragraph below contains the same information as the paragraph you just read. However, each paragraph contains one error. First, find the error. Then fix it by editing the sentence so that the information is correct.

1. Find and fix the error.

Doctors Without Borders

Doctors Without Borders is a worldwide organization. Its members believe that everyone should have medical care. Victims of war, disease, and natural disasters help them. The organization was started in France in 1971. People from more than seventy countries are treated each year by thousands of doctors, nurses, and administrators from countries all over the world. The organization provides medical care, performs surgery, and offers mental health care.

2. Find and fix the error.

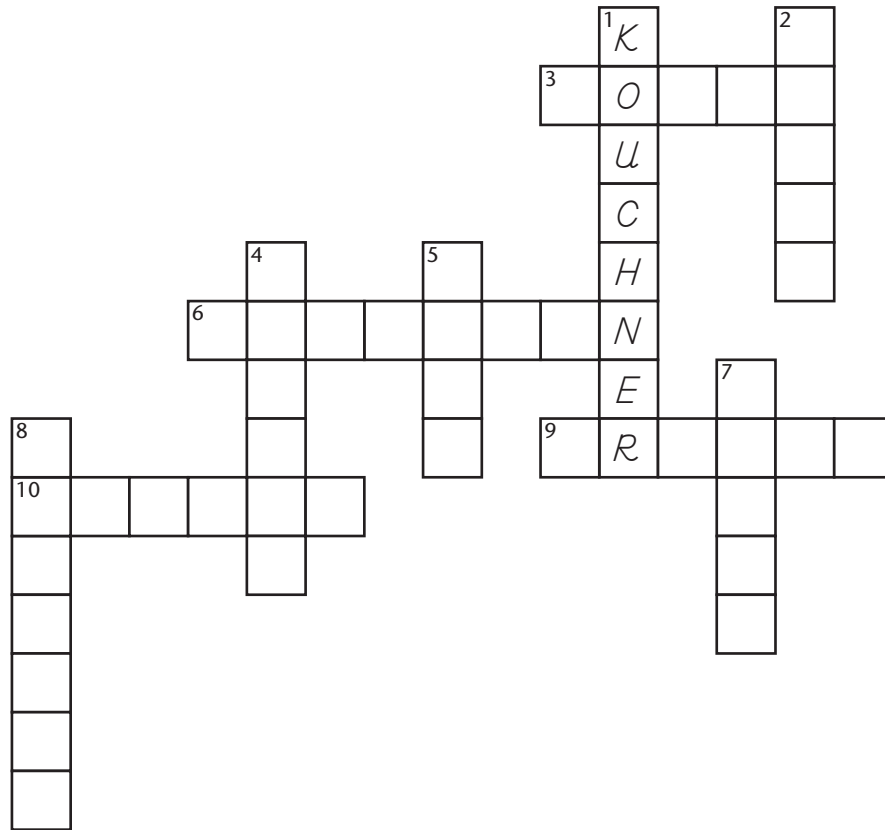
Doctors Without Borders

Doctors Without Borders operates in only one country. The organization believes that everyone deserves to see a doctor. It helps people who are sick or who are injured due to war or natural disasters. A small group of French doctors started Doctors Without Borders (Médecins Sans Frontières) in 1971. Thousands of doctors, nurses, and administrators treat people in more than seventy nations annually. Services offered by the organization include health care, surgery, mental health care, sanitation and nutrition programs, and training local doctors and nurses.

FOCUS ON DETAILS

Crossword Puzzle

To complete this crossword puzzle, you'll need to remember or search for details in the reading. Use the words in the word box. Not all of the words in the word box are in the puzzle. Fill in the crossword with answers to the clues below. The first answer has been done for you.



JAPANESE
POLIO
SULLIVAN
FRENCH
ALLIES
KOUCNER
NOBEL
MALARIA
TURKEY
KING
INDIA
ZAPOTEC

Across

3. The disease Franklin Delano Roosevelt developed
6. Helen Keller's teacher
9. People who tried to colonize Mexico
10. Great Britain, France, Russia, and the United States were called this when they fought against Germany and Japan

Down

1. A founder of Doctors Without Borders
2. Peace prize won by Doctors Without Borders
4. Country where Florence Nightingale treated wounded soldiers
5. A man influenced by Gandhi to use passive resistance
7. Home country of Mohandas Gandhi
8. The kind of Indian Benito Juárez was

READ FOR FLUENCY

1. Silently read the text below. Make sure you understand the point that each sentence is making.
2. Underline the word or words in each sentence that are most important. When you read, you should say these underlined words with expression.
3. Look again at the punctuation in the paragraphs. Remember that when a sentence ends in a period, you should read the words as a statement and take a breath before beginning a new sentence. When you see a comma, you should pause briefly. When you see an exclamation mark, you should sound excited. When you see a question mark, you should read as though you are asking a question.
4. Now read the paragraphs below out loud. Pay attention to the important words and punctuation as you read.
5. Write down any words that slowed you down. Practice saying these words out loud.
6. Read the text below out loud two more times. You may want to ask a friend or family member to listen to you and tell you their reactions to your reading.

Helen Keller

Helen Keller (1880–1968) was nineteen months old when she became sick with a fever. The sickness left her without sight or hearing. Because she was so young when this happened, it was hard for her to learn to communicate. Because she could not see, she was unable to use sign language—the language of hearing-impaired people. She also couldn’t “read lips,” as many hearing-impaired people do. Although these challenges made young Helen very frustrated, she was also extremely intelligent. With the help of a skilled teacher, named Anne Sullivan, she learned that everything had a name and that these names were words. Because of the help of others and her own determination, she was eventually able to learn different ways to communicate. For instance, she learned to “hear” and understand speech by touching a speaker’s lips and throat.

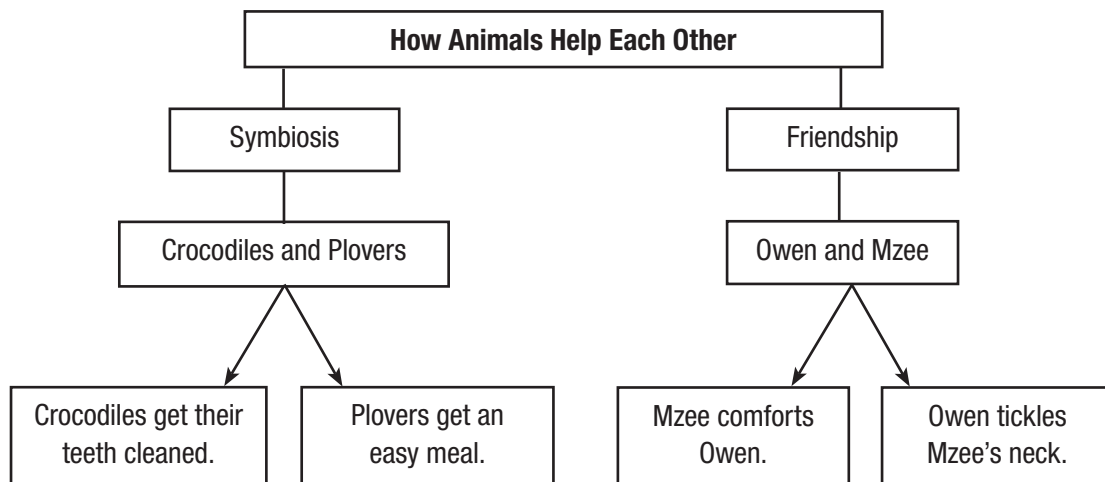
How does helping others help us all?

“Friendship and Cooperation in the Animal Kingdom”

SUMMARY

This passage tells about two ways in which animals help each other: symbiosis and friendship. Symbiosis is a type of relationship between animals in which the animals depend on each other for survival. For example, crocodiles let small birds called plovers clean their teeth. The crocodiles’ teeth get cleaned and the plovers get an easy meal. It is a symbiotic relationship because the animals benefit from each other. Occasionally, animals simply enjoy being with each other and become friends. This happened with a baby hippo named Owen and an old tortoise named Mzee. Owen lost his mother. At an animal shelter, Owen and Mzee became very good friends and refused to be separated.

Visual Summary



Use What You Know

List three ways different animals can help each other.

1. _____
2. _____
3. _____

Text Structure

A science article always begins with a title.

Circle the title on this page. What do you think the article will be about?



Reading Strategy: Identify Main Idea and Supporting Details

Identifying the main idea of a paragraph helps you recognize the most important points

an author wants to make. Read the last paragraph on the page. Underline the sentence that states the main idea of the paragraph. What are two details that support the main idea?



1. _____

2. _____

Friendship and Cooperation in the Animal Kingdom

You know that people help other people, but do animals help other animals? It's a "dog-eat-dog" world out there, isn't it? Not always! It's true that animals often fight. However, at other times they help each other out.

Life in the wild can be very difficult for animals. It is not easy for them to find food and water and stay safe. Animals struggle every day to survive.

That's why animals of the same species, or group, such as lions or blue jays, sometimes cooperate. By helping one another, they help their group survive.

Some animals become partners with other kinds of animals. The two types of animals depend on each other for survival. This is called symbiosis, and animals who depend on each other are said to be in a symbiotic relationship. Sometimes the two animals would die without each other. Other times, they might be able to live, but they would not be as healthy.

"dog-eat-dog," very competitive

One example of symbiosis is the relationship between the plover and the crocodile. The plover is a small wading bird. It helps pick clean the Nile crocodile's body and even its teeth. The crocodile will open its jaws and let the bird enter its mouth safely. Amazingly, the crocodile will not snap its jaws shut. Instead, it patiently allows the plover to eat the small, harmful animals on the crocodile's teeth. The crocodile gets its teeth cleaned, and the plover gets an easy meal!

Symbiosis is a working relationship. Many animal species have worked out this arrangement with other animal species. Sometimes, however, animals simply become friends with other animals. There may not be an obvious reason. Perhaps they just like the companionship.

Animals can find friends in the strangest places. For an example, take Owen, a baby hippopotamus. It is hard to believe, but Owen actually became best friends with a 318-kilogram (700-lb.) tortoise named Mzee (mm-ZAY).

Text Structure

Science articles often provide an example to explain a key word. Circle the key word in the first sentence and underline the example the writer gives to explain this term. How would you explain the relationship between the plover and the crocodile?



Reading Strategy: Identify Main Idea and Supporting Details

Identifying supporting details helps you remember main ideas by forming a picture in your mind about what you are reading. Circle the details in the first paragraph. What main idea does the author want you to remember?



Comprehension Check

Circle the paragraph that discusses the difference between symbiosis and friendship. How is friendship between animals different from symbiotic relationships between animal species?



Text Structure

Science articles often include facts that have numbers. Circle the number fact in the first paragraph. Why do you think the author gives the hippo's weight in two different units of measurement?



Reading Strategy: Identify Main Idea and Supporting Details

Underline the main idea of the second paragraph. Which of the supporting details interests you the most? Why?



Comprehension Check

Underline the sentence that explains what the undersea earthquake caused. How does a tsunami cause damage?



Owen, the hippo, lived in the country of Kenya on the east coast of Africa. He was just one year old, and he already weighed 272 kilograms (600 lb.). He lived happily with his mother in a group of about twenty hippos. They grazed on the grass along the Sabaki River near the small village of Malindi.

On December 26, 2004, a disaster struck. There was a huge earthquake under the ocean floor near Indonesia. This caused a gigantic tsunami. The tsunami wiped out towns and villages throughout Asia. Around 230,000 people died. By the time the tsunami reached the east coast of Africa, the waves had lost a great deal of power. However, they still caused flooding and widespread damage. Owen had been swimming in the river with his mother when the tsunami hit. The enormous waves separated Owen from his mother and swept him out to sea.



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The next day, the people of Malindi saw the struggling baby hippo, without its mother, stranded on a coral reef. It was Owen. He was tired and frightened. Owen could not reach the shore on his own. It took hours for the villagers to rescue Owen from the coral reef.

But what should they do with a 272-kilogram (600-lb.) baby hippo? The people could not return him to the wild. Owen had not yet learned to take care of himself. Another hippo group would not accept him. Other hippos would think Owen was an intruder and probably attack him.

Luckily for Owen, there was an animal shelter nearby named Haller Park. The workers prepared a perfect home for Owen. It had a pond, a mud hole, tall trees, and lots of grass. This seemed perfect for a hippo, but Owen's new home was not empty. Some monkeys and a 318-kilogram tortoise named Mzee (mm-ZAY) already lived in Haller Park.

It took hours for the people of Malindi to load Owen into a pickup truck. Owen was very angry, and he was also very frightened. He had lost his mother and his friends. He did not know where he was or where he was going.

coral reef, line of hard material formed by the skeletons of small ocean creatures that live in warm water

Comprehension Check

Underline the sentence in the first paragraph that tells what Owen's problem was. Why do you think Owen was not able to live on his own without his mother?



Text Structure

Science articles often include highlighted words that are defined at the bottom of the page. Circle the highlighted term on this page. Read its definition. How do you think the hippo could have ended up on the coral reef?



Reading Strategy: Identify Main Idea and Supporting Details

Identifying main ideas and details can help you understand what is most important to remember from what you read. Read the third paragraph and underline its main idea. List three details about Haller Park.



1. _____
2. _____
3. _____

Comprehension Check

Underline the sentence that tells what Owen did when he was let out of the truck. Why do you think Owen did this?



Text Structure

Science articles often include facts about places. Circle the names of places in the second paragraph that help to explain where Mzee was from. Near what continent did Mzee live?



Reading Strategy: Identify Main Idea and Supporting Details

When you read an article it can be helpful to jot the main idea of a section in the margin. Write "Owen meets Mzee" next to the first paragraph and circle it. What is the main idea of the third paragraph? Put it into your own words.



When Owen arrived at Haller Park, he quickly left the pickup truck and ran right to Mzee. The workers looked in amazement when Owen quickly hid behind the giant tortoise. This is exactly the way a baby hippo would hide behind its mother if it felt the need for protection.

Mzee was shocked and surprised. He had originally come from Aldabra Island. This is part of the country of Seychelles in the Indian Ocean. Sailors had probably taken Mzee from his home to be used for food. He must have escaped from the ship, maybe during a shipwreck, and come ashore somewhere on the eastern coast of Africa. That was a long time before, because Mzee was about 130 years old. (Some giant tortoises live to be 200 years old!)

Mzee must have seen a lot in his long life. Like most giant tortoises, he was not very friendly. He preferred to be left alone. So, at first, Mzee tried to crawl away from Owen. However, as you know, tortoises cannot move very quickly. Owen just watched where Mzee went and then followed him around. For some reason, Mzee began to like his new companion.

Over the next few days, the two giant animals became good friends. Then they became great friends. In fact, Owen and Mzee soon refused to be separated. They would spend all their time together, eating, swimming, sleeping, and playing. Mzee would stretch out his neck and Owen would **tickle** it. At night, the two huge animals would cuddle up next to each other. Mzee and Owen even developed their own way of “talking” with each other.

It is a bit of a mystery why Owen and Mzee became such good friends. After all, Owen is a mammal and Mzee is a reptile. Perhaps Mzee’s coloring and round shape reminded Owen of his mother. Maybe Owen looked like another tortoise to Mzee. For whatever reason, they surprised scientists with the strength of their friendship.

Mzee’s name means “wise man” in Swahili (one of the main languages of Kenya). It turned out that Mzee’s name was well chosen. When Owen the hippo needed a friend, Mzee was there for him. Owen suffered a tremendous loss, but he never gave up. He kept trying and now has a happy life.

tickle, touch a person or animal lightly, often in order to make him or her laugh

Choose one and complete:

1. Use an atlas or the Internet to find some of the places mentioned in the article. Mark the places you find in your research on a map of the world.
2. Draw a picture of Owen and Mzee. At the bottom, list some of the things they like to do together. Give your picture a title.
3. Write a song or poem about Owen and Mzee’s friendship.

**Reading Strategy:
Identify Main Idea and
Supporting Details**

Underline the sentences that tell the main idea of the first paragraph. What details are given to show that Owen and Mzee became great friends?



1. _____
2. _____
3. _____
4. _____

Text Structure

Circle the highlighted word on this page and read its definition at the bottom of the page. Write your own sentence using the word.



Comprehension Check

Circle the words in the second paragraph that tell what kind of animal Owen is and what kind of animal Mzee is. Why do you think it is unusual for a mammal and a reptile to be friends?



READING WRAP-UP

Retell It!

Retell the story of how Owen and Mzee became friends in your own words.

Reader's Response

The people of Malindi worked for hours to rescue Owen from the coral reef where he was stranded. What do their efforts tell us about the people of Malindi?

Think About the Skill

How did identifying the main idea and supporting details of some paragraphs help you to better understand the article?

EDIT FOR MEANING

Read

You have read "Friendship and Cooperation in the Animal Kingdom." Now read one paragraph from it again.

Friendship and Cooperation in the Animal Kingdom

One example of symbiosis is the relationship between the plover and the crocodile. The plover is a small wading bird. It helps pick clean the Nile crocodile's body and even its teeth. The crocodile will open its jaws and let the bird enter its mouth safely. Amazingly, the crocodile will not snap its jaws shut. Instead, it patiently allows the plover to eat the small, harmful animals on the crocodile's teeth. The crocodile gets its teeth cleaned, and the plover gets an easy meal!



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Fix the Error

Each paragraph below contains the same information as the paragraph you just read. However, each paragraph contains one error. First, find the error. Then fix it by editing the sentence so that the information is correct.

1. Find and fix the error.

Friendship and Cooperation in the Animal Kingdom

The relationship between the plover and the crocodile is an example of symbiosis. A small wading bird, the plover eats from the Nile crocodile's teeth and body. The crocodile opens its mouth and lets the bird in safely. Amazingly, the crocodile never closes its mouth on the bird. Instead, the crocodile calmly allows the plover to eat from its teeth. No one knows what benefit there might be to the crocodile, but the plover gets an easy meal.

2. Find and fix the error.

Friendship and Cooperation in the Animal Kingdom

The crocodile and the plover have a symbiotic relationship. The plover, which is a small bird, helps pick clean the Nile crocodile's teeth. The crocodile opens its jaws and lets the bird enter its mouth. Amazingly, the plover does this even though sometimes the crocodile shuts its jaws with a snap and eats the bird. The plover quickly eats whatever it finds on the crocodile's teeth. The crocodile provides the plover with a meal and gets its teeth cleaned in exchange!

FOCUS ON DETAILS

Word Search Puzzle

To complete this word search puzzle, you'll need to remember or search for details in the reading. Look at the clues and circle the answers in the puzzle below. Check off each clue after you've found the answer. Write each word next to its clue.

1. Enormous wave that wiped out towns and villages _____
2. Village where people rescued Owen _____
3. The bird that cleans crocodiles' teeth _____
4. Country where Owen lived with his mother _____
5. The kind of reptile Mzee is _____
6. Event that caused the tsunami _____
7. The other animals living at Haller Park _____
8. Language Mzee's name is from _____
9. Animal shelter where Owen and Mzee live _____
10. Name of the island Mzee was from _____

P	A	V	M	S	K	X	F	E	S	B	L	F	T	C
T	C	A	O	S	T	D	T	Z	W	K	E	N	Y	A
O	S	H	E	A	E	U	O	G	A	N	J	E	Y	U
Z	T	U	Y	L	U	G	R	D	H	X	U	M	F	V
L	A	W	N	D	Z	K	T	P	I	L	K	A	O	B
A	I	V	Y	A	A	W	O	V	L	R	C	L	P	H
T	W	Q	X	B	M	Q	I	T	I	E	N	I	S	A
P	M	H	E	R	D	I	S	T	M	Z	F	N	Y	L
L	L	A	K	A	G	Z	E	H	S	E	O	D	W	L
B	B	O	I	F	M	D	H	R	Q	O	G	I	P	E
N	B	R	V	I	X	C	E	B	I	T	R	H	R	R
P	J	R	N	E	G	M	O	N	K	E	Y	S	L	P
Y	R	C	L	S	R	H	N	C	U	T	K	Q	I	A
J	E	A	R	T	H	Q	U	A	K	E	I	S	S	R
W	K	Q	J	V	M	O	Y	J	D	N	L	X	Z	K

READ FOR FLUENCY

1. Silently read the text below. Make sure you understand the point that each sentence is making.
2. Underline the word or words in each sentence that are most important. When you read, you should say these underlined words with expression.
3. Look again at the punctuation in the paragraphs. Remember that when a sentence ends in a period, you should read the words as a statement and take a breath before beginning a new sentence. When you see a comma, you should pause briefly. When you see an exclamation mark, you should sound excited. When you see a question mark, you should read as though you are asking a question.
4. Now read the paragraphs below out loud. Pay attention to the important words and punctuation as you read.
5. Write down any words that slowed you down. Practice saying these words out loud.
6. Read the text below out loud two more times. You may want to ask a friend or family member to listen to you and tell you their reactions to your reading.

Friendship and Cooperation in the Animal Kingdom

You know that people help other people, but do animals help other animals? It's a "dog-eat-dog" world out there, isn't it? Not always! It's true that animals often fight. However, at other times they help each other out.

Life in the wild can be very difficult for animals. It is not easy for them to find food and water and stay safe. Animals struggle every day to survive.

That's why animals of the same species, or group, such as lions or blue jays, sometimes cooperate. By helping one another, they help their group survive.

What do we learn through winning and losing?

“Going, Going, Gone?”/ “Ivory-Billed Woodpeckers Make Noise”

SUMMARY

The first article is about the extinction of birds. It tells about the ivory-billed woodpecker. People thought the bird was extinct, but it may still exist. The article also tells about the dodo, the passenger pigeon, and the Carolina parakeet. These birds are now extinct because of human activity. Humans killed too many of them and destroyed their environments. People also brought in animals from other areas. These nonnative animals killed the birds. The second article tells about a recent sound recording made of the ivory-billed woodpecker. After hearing the recording, scientists believe that the birds still exist. The article describes a government plan to protect the birds' environment.

Visual Summary

Many birds have become extinct. They include the following species:			
<i>The Ivory-Billed Woodpecker</i>	<i>The Dodo</i>	<i>The Passenger Pigeon</i>	<i>The Carolina Parakeet</i>
<ul style="list-style-type: none">• Loggers cut down trees where they lived.• Scientists rediscovered the ivory-billed woodpecker.• They made recordings of the bird's call.• Today, scientists work to protect these birds.	<ul style="list-style-type: none">• Sailors hunted dodos, making them one of the first birds to become extinct.	<ul style="list-style-type: none">• Settlers hunted the pigeons and killed them off.	<ul style="list-style-type: none">• Farmers thought the birds were pests.

Use What You Know

List three birds that are found in your area.

1. _____
2. _____
3. _____

Text Structure

Sometimes, a science article starts with an introduction. An introduction sets up a topic and prepares you to read. Draw a box around the introduction on this page. What do you think you will learn about in this article?



Reading Strategy: Recognize Cause and Effect

One way to understand the information presented in a science article is to examine the causes that make things happen and the effects, or results, they create. List two causes that explain why many birds have become extinct.

1. _____
2. _____

Going, Going, Gone?

When a species, or kind of animal, becomes extinct, it is lost forever. These online science articles both deal with birds that have become extinct. You will find out the effects that certain events and actions had on the dodo, the passenger pigeon, and the Carolina parakeet. You will also find out why some bird lovers now feel hopeful about a bird that was thought to be extinct. As you read, consider what can be done to prevent other living things from becoming extinct in the future.

More than eighty kinds of birds have died out, or become extinct, in the last 300 years. Some vanished because of natural causes. Humans killed off most of them. They hunted the birds too much and destroyed the birds' habitats. Read on for more details on the search for the ivory-billed woodpecker. (It might not be extinct as once thought.) Then check out the stories behind three extinct birds.



The Ivory-Billed Woodpecker

A team of bird experts is walking through mud and swamps in Louisiana's Pearl River forest. They hope to find the mysterious ivory-billed woodpecker. Experts believed this bird had been extinct for more than fifty years. A college student's sighting of unusual-looking birds sparked hopes that it might still be alive.

Loggers cut down trees in the Pearl River forest during the early 1800s. But some trees have grown back. There are now many old cypress, sweet gum, and oak trees that would serve as a good home for ivory-billed woodpeckers. The birds were known to eat the fat **grubs** that live under the bark of these trees. The researchers have already found trees with areas of bark that have been chipped off, as if by a large woodpecker. Only time will tell if it is an ivory-billed one.

loggers, people whose job it is to cut down trees
grubs, insects when they are in the form of small, soft, white worms

Comprehension Check

Underline the sentence that tells where a team of experts was walking in Louisiana. What did the experts hope to find?



Reading Strategy: Recognize Cause and Effect

Underline the sentence that tells what loggers did to trees in the Pearl River forest. How did cutting the trees help make ivory-billed woodpeckers extinct?



Text Structure

A science article often has highlighted vocabulary words.



Their definitions appear at the bottom of the page. Circle the second vocabulary word on this page. Look at its definition. Then write a new sentence using the vocabulary word.

Comprehension Check

Underline the date that tells when dodos were first seen. How long did it take for them to become extinct?



Reading Strategy: Recognize Cause and Effect

Underline the sentence that tells why dodos were easy for sailors to hunt. What animals also hunted dodo birds?



Text Structure

Draw a box around the highlighted vocabulary term on this page. Look at its definition. Then rewrite the sentence without using the vocabulary term.



The Dodo

The dodo was the first bird to be wiped out by people during modern times. Dodos were large, flightless birds. They were first seen around 1600 on Mauritius, an island in the Indian Ocean. Less than eighty years later, the dodo was extinct. The dodo's heavy, clumsy body made it an easy target for sailors, who hunted it for food. As forests were destroyed, so was the dodo's food supply. And the cats, rats, pigs, and other predators unleashed by sailors preyed on the dodos. Together these factors led to the dodo's extinction.

preyed on, hunted and ate

The Passenger Pigeon

These pigeons once lived in the eastern United States. They flew across this area in flocks so huge that they darkened the sky. In 1808 a single flock in Kentucky was estimated to contain over 2 billion birds. Today the passenger pigeon is extinct because of human activities. Settlers moving West during the nineteenth century cleared huge numbers of eastern chestnut and oak trees to make room for farms and towns. These trees were the passenger pigeon's main source of food. The birds were seen as a threat to crops, so people killed the birds. They were also hunted for food. All of these factors wiped out the passenger pigeon. The last one, which lived in the Cincinnati Zoological Garden, died on September 1, 1914.



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Text Structure

Science articles often give important facts and figures. Underline the number that tells how many passenger pigeons a single flock once contained. In which part of the United States did passenger pigeons live?



Reading Strategy: Recognize Cause and Effect

Underline the sentence that tells why settlers killed the pigeons. What was the final effect on the pigeons?



Comprehension Check

Circle the sentence that tells where the last passenger pigeon lived. What do you think might have been done to keep the passenger pigeon from becoming extinct?



Comprehension Check

Draw a box around the number that tells how big the largest Carolina parakeets were. In your own words, describe what the birds looked like.



Text Structure

Circle the title of the second article that begins on this page. How do you think it will relate to the first article you read?



Reading Strategy: Recognize Cause and Effect

Underline the sentence that tells why some bird experts weren't sure that the ivory-billed woodpecker had been rediscovered. What did researchers do to give more proof?



The Carolina Parakeet

This colorful bird was the only parrot native to the eastern United States. It had green feathers with a yellow head and orange cheek patches and forehead. The largest Carolina parakeets were 33 centimeters (13 in.) long, including their tail feathers. They once lived throughout the Southeast, as far north as Virginia and as far west as Texas. Parrots are among the smartest of birds. However, farmers thought these fruit-eaters were pests. So they shot them from the skies. The Carolina parakeet became extinct in the 1920s. As a result, all that's left are stuffed examples of this bird in museums.

"Ivory-Billed Woodpeckers Make Noise"

Bird lovers were chirping back in April of 2005. Why? Scientists from Cornell University announced they'd rediscovered the ivory-billed woodpecker. The rare bird was thought to have been extinct since 1944. It was rediscovered at Cache River National Wildlife Refuge in eastern Arkansas.

In July, a small group of bird experts said that they weren't sure the ivory-billed woodpecker had really been rediscovered. They said a blurry videotape of the bird wasn't enough evidence. Researchers then decided to send them more proof. They shared a sound recording of the ivory-billed woodpecker's one-of-a-kind double-rap.

pests, small animals or insects that harm people or destroy things, especially crops or food supplies
Wildlife Refuge, protective environment for animals
one-of-a-kind, unique, or very special because there is nothing else like it

The unique sounds made believers out of the bird experts. “The thrilling new sound recordings provide clear and convincing evidence that the ivory-billed woodpecker is not extinct,” said Richard Prum, a scientist from Yale University.

The ivorybill is the largest woodpecker in the United States. It has a wingspan of about 91 centimeters (3 ft.). The ivorybill began to disappear because loggers cut down forests across the Southeast between 1880 and the 1940s. Soon after the ivorybill was rediscovered, the U.S. government announced a \$10 million plan to protect the rare bird.

Conservationists are trying to help the woodpecker by killing trees. Sound strange? The woodpecker feeds on beetle larvae found under the bark of dead trees. When the trees are killed, more beetles will likely be attracted to the trees. With more food for the woodpeckers, the species will have a better chance at recovering.

Only about thirty-five to fifty trees will be cut on four 4-acre sections of land. There are 2,000 to 2,800 trees on each section. In about two or three years, scientists hope the trees will have lots of beetles for the woodpeckers. Then the double-rap of the ivorybill will be a common sound.

larvae, young insects with soft, tube-shaped bodies, which will eventually become adult insects with wings

Choose one and complete:

1. Create a poster to show one of the birds featured in this article. Mention the reasons why it became rare or extinct.
2. Find out more about one of the extinct bird species. Write a one-page report based on your research.
3. Imagine you are a conservationist working to save the ivory-billed woodpecker. Write a letter to a friend to describe your work and explain why it is important.

Comprehension Check

Draw a box around the name of the expert who is quoted on this page. What did bird experts believe after they listened to the sound recording?



**Reading Strategy:
Recognize Cause and Effect**

List two effects of the rediscovery of the ivory-billed woodpeckers.

1. _____
2. _____

Text Structure

Circle the highlighted vocabulary word that appears on this page. Look at the definition. Then rewrite the definition in your own words.



READING WRAP-UP

Retell It!

What are conservationists and the government doing to save ivory-billed woodpeckers? Write a paragraph that explains their work.

Reader's Response

Do you think settlers should have cut down trees in the 1800s? Why or why not?

Think About the Skill

How did recognizing cause and effect help you to better understand the article?

EDIT FOR MEANING

Read

You have read "Going, Going, Gone?" Now read one paragraph from it again.

The Dodo

The dodo was the first bird to be wiped out by people during modern times. Dodos were large, flightless birds. They were first seen around 1600 on Mauritius, an island in the Indian Ocean. Less than eighty years later, the dodo was extinct. The dodo's heavy, clumsy body made it an easy target for sailors, who hunted it for food. As forests were destroyed, so was the dodo's food supply. And the cats, rats, pigs, and other predators unleashed by sailors preyed on the dodos. Together, these factors led to the dodo's extinction.



Fix the Error

Each paragraph below contains the same information as the paragraph you just read. However, each paragraph contains one error. First, find the error. Then fix it by editing the sentence so the information is correct.

1. Find and fix the error.

The Dodo

In the ancient era, the first bird wiped out by people was the dodo. Dodos were first seen around 1600. They lived on Mauritius, an island in the Indian Ocean. Less than eighty years later, the dodo was extinct. They were large, flightless birds. Their heavy, clumsy bodies were easy targets for sailors who hunted the birds for food. Cats, rats, pigs, and other predators also ate the dodos. Plus, as forests were destroyed, so was the dodo's food supply. All these factors led to the dodo's extinction.

2. Find and fix the error.

The Dodo

The first bird wiped out by people in modern times was the dodo. Dodos were first seen around 1600 on Mauritius, an island in the Indian Ocean. Less than eighty years later, the dodo was gone. The dodo's sleek, thin body made it a difficult target for sailors, who hunted it for food. The cats, rats, pigs, and other predators the sailors unleashed preyed on dodos, too. People also destroyed forests, which provided food for the birds. Together, these factors led to the dodo's extinction.

FOCUS ON DETAILS

Word Search Puzzle

To complete this word search puzzle, you'll need to remember or search for details in the reading. Write the word from the text next to each clue. Then circle the answers in the puzzle below.

1. Lost forever: _____
2. Ivorybills are this type of bird: _____
3. Large, flightless bird that is now extinct: _____
4. Ivorybills eat this kind of larvae: _____
5. Carolina parakeets have feathers that are this color: _____
6. Researchers made this to prove ivorybills exist: _____
7. The one-of-a-kind tap of ivorybills: _____
8. A worker who cuts down trees: _____
9. A kind of pigeon that no longer exists: _____
10. Carolina parakeets once lived this far north: _____



READ FOR FLUENCY

1. Silently read the text below. Make sure you understand the point that each sentence is making.
2. Underline the word or words in each sentence that are most important. When you read, you should say these underlined words with expression.
3. Look again at the punctuation in the paragraphs. Remember that when a sentence ends in a period, you should read the words as a statement and take a breath before beginning a new sentence. When you see a comma, you should pause briefly. When you see an exclamation mark, you should sound excited. When you see a question mark, you should read as though you are asking a question.
4. Now read the paragraphs below out loud. Pay attention to the important words and punctuation as you read.
5. Write down any words that slowed you down. Practice saying these words out loud.
6. Read the text below out loud two more times. You may want to ask a friend or family member to listen to you and tell you their reactions to your reading.

“Ivory-Billed Woodpeckers Make Noise”

Bird lovers were chirping back in April of 2005. Why? Scientists from Cornell University announced they’d rediscovered the ivory-billed woodpecker. The rare bird was thought to have been extinct since 1944. It was rediscovered at Cache River National Wildlife Refuge in eastern Arkansas.

In July, a small group of bird experts said that they weren’t sure the ivory-billed woodpecker had really been rediscovered. They said a blurry videotape of the bird wasn’t enough evidence. Researchers then decided to send them more proof. They shared a sound recording of the ivory-billed woodpecker’s one-of-a-kind double-rap.

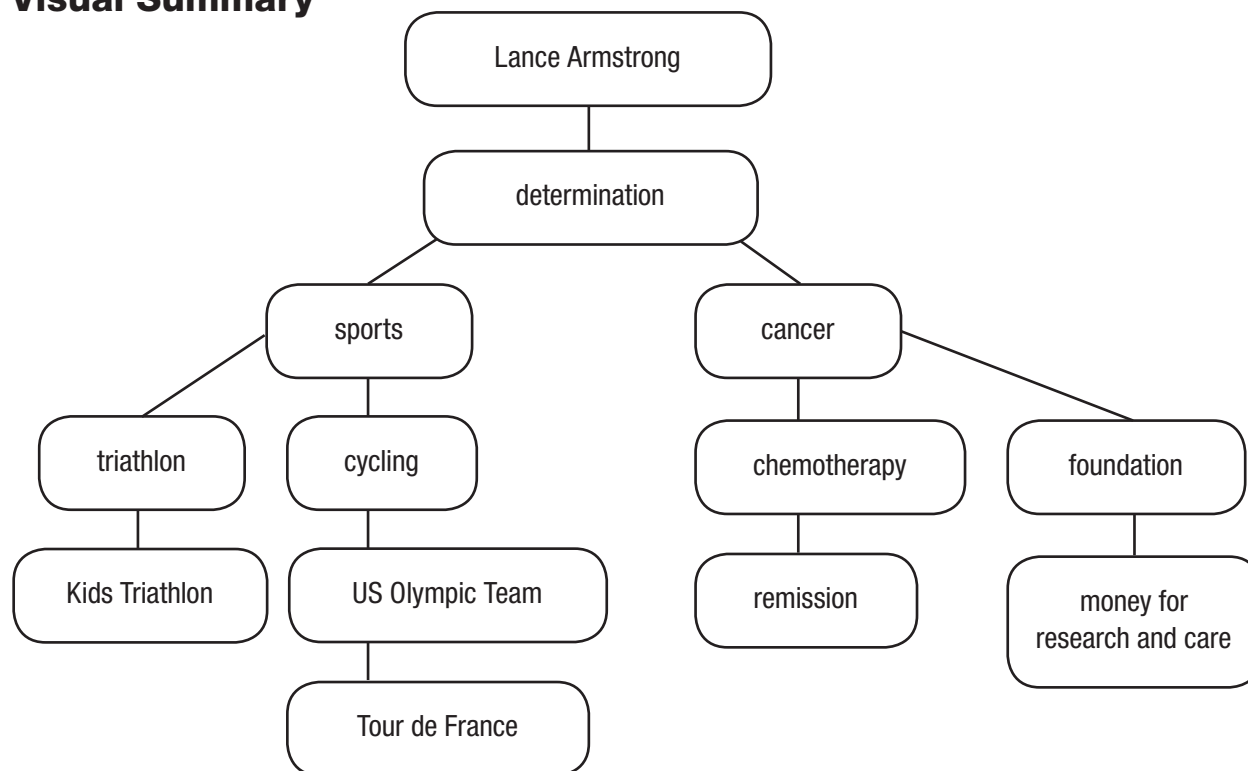
What do we learn through winning and losing?

“The Biggest Winner of All”

SUMMARY

In 1996, Lance Armstrong was already an accomplished cyclist. But then he faced the major challenge of his life—cancer. Through determination, he beat the disease. He endured the difficult treatment and survived. He put his racing career back on track. With that same determination, he got back in shape and was able to win in the most famous bicycle race in the world, the Tour de France, for seven years in a row, from 1999 to 2005. In addition to racing, Armstrong devotes his time to helping others. He started a foundation that raises money for cancer research.

Visual Summary



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Use What You Know

List three sports you like to play or watch.

1. _____
2. _____
3. _____

Text Structure

Circle the word *winner* in the title of this social studies article. What kinds of things can people *win*? Write a list.



Reading Strategy: Ask Questions

Good readers ask *who*, *what*, *when*, *where*, and *why* questions. These questions are known as the 5Ws. They can help you better understand what you read. Underline the first sentence on this page. What question using one of the 5W words could you ask about it? Now read the paragraph. Did the text answer your question?



“The Biggest Winner of All”

Anyone who plays sports knows how important it is to win. Being first is a good thing. All your hard work is recognized. You may get a trophy, or at the very least, a ribbon. Think about having all eyes on you as you accept your prize. That’s a great feeling. Your picture may even appear in the newspaper. You’re the envy of all your friends. If you’ve broken a record, people will talk about it for a long time.

trophy, statue or cup given as a prize

For one athlete, the biggest win of all had nothing to do with sports. Sure, this athlete has broken many records. He's won numerous awards and prizes. His name has appeared in newspapers and magazines hundreds or even thousands of times. You've probably seen him on television. He even has his own official website.

His toughest opponent wasn't another athlete, though. It was something that's even harder to fight. It was a disease— cancer . If you haven't guessed by now, this famed athlete is Lance Armstrong. He survived a battle with cancer.

athlete, a person who competes in sports
famed, well known

Reading Strategy: Ask Questions

The author is describing an athlete in the first paragraph. What question can you ask to find the name of the athlete?

Comprehension Check

What was Lance Armstrong's toughest opponent? Circle it in the text. Write the words the author uses to describe this opponent.



Text Structure

A social studies article often has highlighted vocabulary words. Their definitions are at the bottom of the page. Circle the highlighted vocabulary word at the bottom of the second paragraph. Look at its definition. Rewrite the sentence in which it appears without using the vocabulary word.



Reading Strategy: Ask Questions

Underline the subheading on this page. Write a *when* or *where* question about it. Now read the text on this page. Was your question answered?



Text Structure

A social studies article often gives information about historical events. Underline the sentence that gives Lance's age. What happened then?



Comprehension Check

Circle the word *triathlon* in the text. What sports are in the triathlon?



The Winning Begins

Lance Armstrong was born in Plano, Texas. His mother encouraged him to do his best. When Lance was just a little boy, his mom recognized his **talent**. He was strong, **coordinated**, and determined—the elements of a good athlete. By the time he was just thirteen years old, he had won the Kids Triathlon. A triathlon is a sports **competition** with three **events**: swimming (the first event), cycling (the second event), and running (the third event). The distance required for each event is based on the age of the athlete. The cycling part of the competition requires great endurance.

talent, natural ability
coordinated, not awkward or clumsy
competition, game or sport with a winner
events, activities

By the time Lance was sixteen, he had become a professional athlete. As he got older he decided to train to be a competitive cyclist. Cycling requires good coordination, because cyclists ride around corners at a fast pace. Serious cyclists must train every day. If they are serious about entering races, they must show **determination**.

determination, quality of trying to do something even when it is difficult

Reading Strategy: Ask Questions

Read the paragraph on this page. Then write a 5W question you could ask to learn more about cycling in the United States today. (Make sure that your question starts with one of these words: *who, what, when, where, or why.*)

Comprehension Check

What did Lance Armstrong decide to do when he got older?

Text Structure

A social studies article often has highlighted vocabulary words. Their definitions are at the bottom of the page. Circle the highlighted vocabulary word at the bottom of the paragraph. Look at its definition. Rewrite the sentence in which it appears without using the vocabulary word.



Text Structure

Underline the subheading on this page. What question using one of the 5W words could you ask about it? Now read the paragraph. Did the text answer your question?



Reading Strategy: Ask Questions

Read the last two sentences in the paragraph. What questions do you think Lance might have asked his doctor at that time?

Comprehension Check

Underline the text that explains the setback that Lance had. Explain why the setback was dangerous.



A Dangerous Setback

Lance worked hard and earned a place on the U.S. Olympic Team. It seemed as if he had everything he had ever dreamed of. Then, Lance learned that he had cancer. His doctor told him that without treatment, he would die. Even with treatment, he had less than a 50 percent chance to live.

His Biggest Challenge

Lance was determined to fight cancer in much the same way that he would train for a competition. During the repeating pattern of treatments, called chemotherapy, he continued to exercise. He maintained a positive attitude. It was harder than any cycling competition, but Lance was determined to beat cancer and win the race of his life.

Reading Strategy: Ask Questions

Underline the first sentence. Write down two 5W questions you might ask Lance Armstrong about his plan to fight cancer.



1. _____
2. _____

Text Structure

Social studies texts often use comparisons. Read the last sentence. What does *the race of his life* mean?

Comprehension Check

Underline the text that shows what Lance did to fight cancer. What questions could you ask about his fight?



Text Structure

A social studies text often presents important facts or figures. Circle the text that tells how long the Tour de France is. Besides the distance, what other things make it a hard race?



Comprehension Check

Underline the text that tells about the victories Lance had. What two kinds of victories were these?



1. _____
2. _____

Reading Strategy: Ask Questions

Create a question beginning with one of the 5Ws (*who, what, when, where, or why*) that you could ask to learn more about Lance Armstrong.

After his courageous fight, Lance took up another challenge. He entered one of the most prestigious races of all—the Tour de France. This grueling race requires each competitor to ride 3,600 kilometers (2,237 miles) in 22 days. The course is over plains as well as mountains.

Lance won the Tour de France. This victory inspired him to keep competing. With each win, he scored a **personal** victory for himself and a national victory for the United States. Lance won the famed Tour de France an **unbelievable** seven times! He still competes today.

personal, having to do with oneself
unbelievable, hard to imagine

Comprehension Check

Underline the text that tells what Lance Armstrong's foundation does. What are other things a foundation like this might do?



Reading Strategy: Ask Questions

Underline the subheading that appears on this page. What 5W question could you ask about this section?



Text Structure

Draw a box around the last highlighted vocabulary word on this page. Look at the definition. Then write a new sentence using the vocabulary word.



His Fight Continues

Lance Armstrong is a **symbol** of hope for cancer patients throughout the world. Anyone suffering from cancer can read about Lance and find inspiration. After he won his battle with cancer, he set up a foundation to help others. The foundation collects money for research to cure and prevent cancer. It also supports community organizations that help people living with this disease.

Though Lance has won his battle, he continues to help others win theirs. This **spirit** makes Lance the biggest winner of all.

symbol, something that stands for a particular idea
spirit, courage, energy, and determination

READING WRAP-UP

Retell It!

What are the two challenges that Lance Armstrong has faced?

Reader's Response

Do you think Lance Armstrong is a good model for young people? Why or why not?

Think About the Skill

How did asking *who*, *what*, *when*, *where*, and *why* questions help you to better understand the article?

EDIT FOR MEANING

Read

You have read “The Biggest Winner of All.” Now read one paragraph from it again.

“The Biggest Winner of All”

Lance was determined to fight cancer in much the same way that he would train for a competition. During the repeating pattern of treatments, called chemotherapy, he continued to exercise. He maintained a positive attitude. It was harder than any cycling competition, but Lance was determined to beat cancer and win the race of his life.



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Fix the Error

Each paragraph below contains the same information as the paragraph you just read. However, each paragraph contains one error. First, find the error. Then fix it by editing the sentence so the information is correct.

1. Find and fix the error.

“The Biggest Winner of All”

Lance was determined to fight cancer in the same way that he would train for a sports competition. He went for regular medical treatments called chemotherapy, and he continued to exercise to stay strong. He maintained a positive attitude. It was easier than all his cycling competitions—but Lance was determined to beat cancer and win the race of his life.

2. Find and fix the error.

“The Biggest Winner of All”

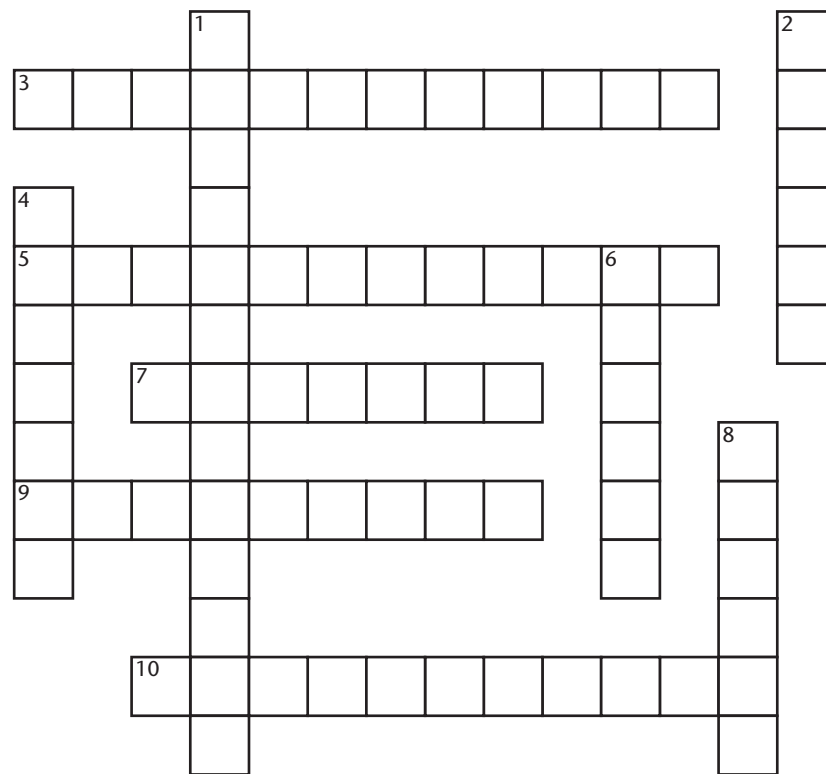
Lance was determined to fight cancer in much the same way he would train for a competition. He followed a regular pattern of treatments, called chemotherapy. He wasn't strong enough to exercise regularly, but he maintained a positive attitude. It was harder than any cycling competition—but Lance was determined to beat cancer and win the race of his life.

FOCUS ON DETAILS

Crossword Puzzle

To complete this crossword puzzle, read the clue. Then choose words from the box. Not all words in the word box are answers to the puzzle. You can go back and search for details in the reading to learn more about the words and clues below.

ATHLETE	DETERMINATION	INSPIRED	TRIATHLON
CANCER	EVENT	PERSONAL	TROPHY
COMPETITION	FAMED	TALENT	UNBELIEVABLE
COORDINATION	FIGHT	TOUR DE FRANCE	VICTORY



Across

3. This means that something is hard to imagine.
5. This is the race Lance Armstrong won seven times. (3 words)
7. This is another word for winning something.
9. This sports activity has three different events.
10. A race is a kind of _____.

Down

1. You need a lot of this to be a good competitor.
2. This is an award that is sometimes shaped like a cup.
4. A person who does sports is called this.
6. This is the disease Lance Armstrong had.
8. If you have this, you can naturally do something well.

READ FOR FLUENCY

1. Silently read the text below. Make sure you understand the point that each sentence is making.
2. Underline the word or words in each sentence that are most important. When you read, you should say these underlined words with expression.
3. Look again at the punctuation in the paragraphs. Remember that when a sentence ends in a period, you should read the words as a statement and take a breath before beginning a new sentence. When you see an exclamation mark, you should sound excited.
4. Now read the paragraphs below out loud. Pay attention to the important words and punctuation as you read.
5. Write down any words that slowed you down. Practice saying these words out loud.
6. Read the text below out loud two more times. You may want to ask a friend or family member to listen to you and tell you their reactions to your reading.

“The Biggest Winner of All”

Lance won the Tour de France. This victory inspired him to keep competing. With each win, he scored a personal victory for himself and a national victory for the United States. Lance won the famed Tour de France an unbelievable seven times! He still competes today.

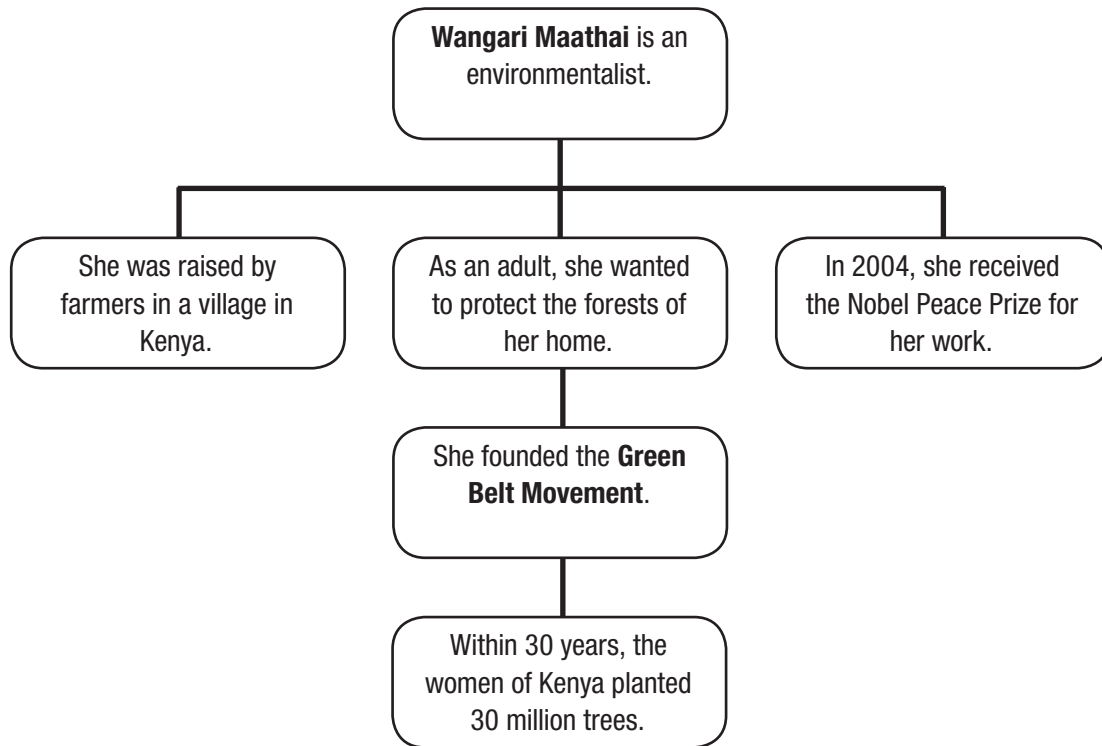
How are courage and imagination linked?

“A Tree Grows in Kenya: The Story of Wangari Maathai” / “How to Plant a Tree”

SUMMARY

The first passage tells about a Kenyan environmentalist named Wangari Maathai. Maathai won the Nobel Peace Prize in 2004. She helped improve living conditions in Kenya and other parts of the world. Maathai believed that many of Kenya’s problems were caused by the destruction of the natural environment. For example, cutting down forests caused poor soil conditions. It also caused shortages of clean water and firewood. In 1977, Maathai started the Green Belt Movement. Her goal was to encourage Kenya’s farmers to plant trees throughout the country. Today, there are millions more trees thanks to Maathai’s Green Belt Movement. The second passage, “How to Plant a Tree,” gives step-by-step instructions for planting a tree.

Visual Summary



Use What You Know

List three things you know about trees.

1. _____
2. _____
3. _____

Text Structure

A science text often has highlighted vocabulary words. Their definitions are at the bottom of the page. Draw a box around the second highlighted word on this page. Look at its definition. Rewrite the sentence the word appears in without using the term.



Comprehension Check

Circle the year Wangari Maathai was born. What details about her childhood may have predicted her career as an environmentalist?



A Tree Grows in Kenya: The Story of Wangari Maathai

In October 2004, Wangari Maathai (wan-GAH-ree mah-DHEYE), an environmentalist from Kenya, Africa, received an unexpected phone call. The person on the phone told her that she had won the Nobel Peace Prize. Each year, the Nobel committee chooses someone whose work for peace is judged to be the most important to the world. This was an incredible honor and an enormous surprise for Maathai. She was very excited. In an interview with *Time* magazine, she said, “I think what the Nobel committee is doing is going beyond war and looking at what **humanity** can do to prevent war. Sustainable management of our natural resources will promote peace.” She was pleased that the judges had recognized the deep connection between environmentalism and peace. “If we conserved our resources better,” she said, “fighting would not occur.”

Maathai’s love of the environment began when she was very young. She was born in the **highland** village of Nyeri in Kenya in 1940. As a child she enjoyed the lush, green forests around her. Her parents were farmers, so she grew up close to the natural world. In her Nobel prize speech, she said:

humanity, people in general
highland, mountain

I would visit a stream next to our home to fetch water for my mother. I would drink water straight from the stream. Playing among the arrowroot leaves, I tried in vain to pick up the strands of frogs' eggs, believing they were beads. But every time I put my little fingers under them they would break. Later, I saw thousands of tadpoles: black, energetic, and wriggling through the clear water against the background of the brown earth. This is the world I inherited from my parents.

Maathai was an excellent student. She won a scholarship to attend a college in the United States. She studied hard and received a degree in biology. Then she worked toward more advanced degrees at the University of Pittsburgh and University of Nairobi in Kenya. In 1971, she earned a doctoral degree. She was honored to be the first woman in East and Central Africa to earn such an advanced degree.

tadpoles, small creatures with long tails that live in water and grow into frogs or toads

inherited, received

scholarship, money given to help pay for a person's education

Text Structure

Science articles often include quotations. Draw a box around the quotation that appears on this page. Who is speaking? What is he or she talking about?



Reading Strategy: Follow Steps in a Process

Steps in a process describe the steps in completing a task. In your own words, describe the steps Maathai took to get an education.

Comprehension Check

Circle the year Maathai received a doctoral degree. How many other women in East and Central Africa had attained such an advanced degree?



Comprehension Check

Underline the place where Maathai taught after she completed her education. Was she satisfied with this job? Why or why not?



Text Structure

Circle the first highlighted vocabulary word on this page. Look at the definition. Then use the word in a new sentence.



Reading Strategy: Follow Steps in a Process

What was the first step Maathai took to help save the forests of Africa? Why do you think this was the first step she chose to make?

At first, Maathai taught at the University of Nairobi. Soon she wanted to do more than teach. While in the United States, she had been deeply impressed by the democratic freedom that people enjoyed. She wanted the Kenyan people to enjoy similar freedom and a better quality of life.

Maathai was concerned that the **luxuriant** forests of her childhood were rapidly disappearing because of **excessive** logging and other practices. She wanted the people of her village, especially the women, to have more of a voice in government. Maathai decided that it was time for a change.

It is said that “a journey of a thousand miles begins with a single step.” Maathai took one step to change the world around her: She planted nine trees in her backyard. With this simple act, she planted the seed of her campaign to save the forests of Africa!

luxuriant, healthy, thick, and strong
excessive, much more than reasonable or necessary

In 1976, Maathai interviewed many farmers in the Kenyan countryside. Most of them were women, and they often had the same concerns. They needed more firewood, which was their main source of energy. They needed clean water for drinking, cooking, and bathing. They needed to be able to grow their own food. In addition, they needed to be able to make more money so that they could become **self-sufficient**.

Maathai knew that the destruction of the forests was at the root of these problems. She decided to put her knowledge and creativity to work. Trees were needed to stop soil **erosion**. They were also important sources of firewood for cooking. Why not encourage farmers in Kenya to plant as many trees as possible? This would be a simple way to improve the farmers' living conditions. And this method wouldn't require expensive tools or large sums of money.

self-sufficient, able to provide for themselves
erosion, destruction and wearing away because of wind and rain

Comprehension Check

Underline the sentence that tells the reason why farmers in Kenya wanted to make more money. List three other things the farmers said they needed.



1. _____
2. _____
3. _____

Text Structure

Circle the first highlighted word on this page. Look at its definition. Then rewrite the definition in your own words.



Comprehension Check

Underline the sentence that tells the root of the farmers' problems. What solution did Maathai think of to solve it?



Comprehension Check

Draw a box around the name of the movement Maathai founded. Why did she choose that name?



Text Structure

Circle the highlighted vocabulary word on this page. Look at its definition. Then rewrite the sentence the word appears in without using it.



Comprehension Check

Underline the number of trees the Green Belt Movement planted within 30 years. What else did the movement do?



In 1977, Maathai founded the Green Belt Movement. A greenbelt is a band of farmland or parks surrounding a village. Maathai hoped to see belts of green trees again throughout Kenya. The goals of the Green Belt Movement were to encourage Kenyan farmers to plant trees and to conserve the environment. This, in turn, would help farmers, and women in particular, to improve their living conditions.

At first, her idea wasn't very popular. As Maathai said, "It took me a lot of days and nights to convince people that women could improve their environment without much technology or . . . financial resources." Although it took a long time, the movement achieved its goal. Within thirty years, the women of Kenya had planted 30 million trees. The Green Belt Movement did other things to improve the quality of Kenyan life. Members also promoted better education and nutrition throughout the country.

financial resources, money or access to money

When Maathai started her campaign to plant trees, she was working at the grass-roots level. This means that she worked directly with the local people. Sometimes, she also worked directly with the government to bring about change. For example, in the 1980s, Kenyan President Daniel arap Moi planned to build a sixty-two-story **skyscraper**. This plan would have destroyed Uhuru Park, a beautiful park in Nairobi, the nation's capital. Maathai had visited Uhuru Park many times. It was one of the only green spaces available in the city for public use. Families often went there on weekends to relax, play, and enjoy time together. To save this **precious** green space, she led protests against the government. President Moi called her "a threat to the order and security of the country." Maathai was arrested by the police and treated badly, but she never gave up the fight. Because of her courage and **persistence**, she eventually succeeded in preserving the park.

skyscraper, very tall building
precious, valuable and important
persistence, determination

Comprehension Check

Circle the location of Uhuru Park. Why did Maathai want to protect the park?



Text Structure

Draw a box around the second highlighted vocabulary word on this page. Look at the definition. List one synonym for this word.



Reading Strategy: Follow Steps in a Process

What step did Maathai take to preserve Uhuru Park? What was the result of this action?

Comprehension Check

Underline the sentence that tells what Maathai strongly believes. How do the people of Kenya feel about Wangari Maathai?



Text Structure

Draw a box around the third highlighted vocabulary term on this page. Look at the definition. Then use the term in a new sentence.



Comprehension Check

Circle all the places where the Green Belt Movement plants trees today. What else has the movement done?



Wangari Maathai died in 2011, but her **legacy** lives on. She strongly believed that solutions to most of the world's problems come from the people themselves. She is a national hero in Kenya. If young Kenyan girls are **strong-willed** and **outspoken**, people say they are "like Wangari." "Like Wangari" has become an expression of **admiration** and affection.

Today, the members of the Green Belt Movement continue to plant trees throughout many countries in Africa, as well as in Haiti and the United States. They have educated thousands of people along the way. As the Nobel committee said, "Maathai is a strong voice speaking for the best forces in Africa to promote peace and good living conditions on the continent. She thinks globally and acts locally."

legacy, something that is received from someone
strong-willed, determined to achieve goals
outspoken, expressing opinions honestly and directly
admiration, approval and respect



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How to Plant a Tree

What You Need

- Something to dig with, like a shovel or spade.
- A tree! You can buy a tree at a garden center. In some places, state or community foresters have trees that they'll give to anyone who wants to plant them. When you buy your tree, you'll notice that all of its roots are wrapped up with fabric in a little ball. This is called the rootball.
- A watering can and some water.

What To Do

1. First, choose a site. Pick a place that gets enough sun, where your tree will be happy. Don't plant close to power or telephone wires.
2. Dig a hole as deep as the rootball and three times as wide.
3. Unwrap the rootball and spread out the roots. If they're tangled up, straighten them out.
4. Put the tree in the hole. The soil should come up as high on the tree as it was before you got it. Usually this will be to the top of the rootball. Be sure that the tree is straight.
5. Fill in the space around the rootball gently but firmly with soil. Pack down the soil with your hands and feet. Be sure that there are no air pockets.
6. Make a little dam around the base of the tree about as wide as the hole. This will keep the water close to the tree.
7. After it's planted, your tree will be very thirsty, so give it lots of water.
8. If you need more help, call your local garden store or contact a community park or forest agency.

Some Tips to Keep in Mind

- If you want to plant your tree in a park or other public place, make sure you ask for permission. Some places may have rules about what kind of trees can be planted there.
- Your tree is just a baby, and like any baby, you need to take care of it. You should water it every week. Most trees need 7.5 to 11 liters (2–3 gal.) of water per week.

Comprehension Check

Underline the passage that explains where you can find a tree to plant. List the three things you need to plant a tree.



1. _____
2. _____
3. _____

Reading Strategy: Follow Steps in a Process

Steps in a process describe the steps to completing a task. These steps are often listed in order from first to last. What is the first step to planting a tree? What is the last step?

1. _____
2. _____

Text Structure

Science articles often include tips to help you complete a task. Draw a box around the tips that appear on this page. How much water should you give a tree each week?



Choose one and complete:

1. Draw a poster to encourage people to plant a tree. Explain why trees are important.
2. Create a time line that shows important dates in the life of Wangari Maathai.
3. Imagine you are presenting the Nobel Peace Prize to Wangari Maathai. Write a short speech to explain why she has been awarded the Nobel Peace Prize.

READING WRAP-UP

Retell It!

When Wangari Maathai interviewed the farmers of Kenya, what problems did they describe? What was her solution to these problems?

Reader's Response

What do you most admire about Wangari Maathai?

Think About the Skill

How did following steps in a process help you better understand the article?

EDIT FOR MEANING

Read

You have read “A Tree Grows in Kenya: The Story of Wangari Maathai.” Now read one paragraph from it again.

A Tree Grows in Kenya: The Story of Wangari Maathai

At first, her idea wasn't very popular. As Maathai said, “It took me a lot of days and nights to convince people that women could improve their environment without much technology or . . . financial resources.” Although it took a long time, the movement achieved its goal. Within thirty years, the women of Kenya had planted 30 million trees. The Green Belt Movement did other things to improve the quality of Kenyan life. Members also promoted better education and nutrition throughout the country.



Fix the Error

Each paragraph below contains the same information as the paragraph you just read. However, each paragraph contains one error. First, find the error. Then fix it by editing the sentence so the information is correct.

1. Find and fix the error.

A Tree Grows in Kenya: The Story of Wangari Maathai

At first, Maathai's idea wasn't very popular. She said, "It took no time at all to convince people that women could improve their environment." Eventually, the members of the movement managed to achieve their goal. They planted 30 million trees in 30 years' time. The Green Belt Movement did other things to improve the quality of life. Members also encouraged the people of Kenya to improve their nutrition and education.

2. Find and fix the error.

A Tree Grows in Kenya: The Story of Wangari Maathai

At first, Maathai's idea did not catch on. She said, "It took me a lot of days and nights to convince people that women could improve their environment." At the time, most believed the women would need a lot of money and technology to complete the task. Although it took a long time, the movement never achieved its goal. It took three decades, but they were able to plant millions and millions of trees. The Green Belt Movement did other things to improve the quality of Kenyan life. Members also promoted better education and nutrition throughout the country.

FOCUS ON DETAILS

To complete this mystery word puzzle, you'll need to remember or search for details in the reading. Use the clues to help you unscramble each of the words. Write the words in the boxes. The numbered letters will form the mystery word.

- The capital city of Kenya
RONIBIA
1
- The group Maathai formed is called the Green Belt _____.
TONVMEME
2
- As a child, she often saw thousands of these wriggling in a stream near her home.
SODLEPTA
3
- Maathai attended this in the United States.
CEGLELO
7
- She received her degree in this scientific field.
IYLOBGO
5
- Kenyan forests were disappearing because of this and other practices.
GINGOLG
8
- Planting trees does not require expensive _____ or large sums of money.
TOLSO
6
- A greenbelt is a band of _____ or parks around a village.
RAFMLDNA
7
- Maathai worked to do this and to protect Uhuru Park.
PEVSERRE
6
- The Nobel committee said Maathai “. . . thinks globally and acts _____.”
LAOLYCL
6

When you buy a tree what are the roots wrapped up in?

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1	2	3	4	5	6	7	8

READ FOR FLUENCY

1. Silently read the text below. Make sure you understand the point that each sentence is making.
2. Underline the word or words in each sentence that are most important. When you read, you should say these underlined words with expression.
3. Look again at the punctuation in the paragraphs. Remember that when a sentence ends in a period, you should read the words as a statement and take a breath before beginning a new sentence. When you see a comma, you should pause briefly. When you see an exclamation mark, you should sound excited. When you see a question mark, you should read as though you are asking a question.
4. Now read the paragraphs below out loud. Pay attention to the important words and punctuation as you read.
5. Write down any words that slowed you down. Practice saying these words out loud.
6. Read the text below out loud two more times. You may want to ask a friend or family member to listen to you and tell you their reactions to your reading.

A Tree Grows in Kenya: The Story of Wangari Maathai

Maathai was concerned that the luxuriant forests of her childhood were rapidly disappearing because of excessive logging and other practices. She wanted the people of her village, especially the women, to have more of a voice in government. Maathai decided that it was time for a change.

It is said that “a journey of a thousand miles begins with a single step.” Maathai took one step to change the world around her: She planted nine trees in her backyard. With this simple act, she planted the seed of her campaign to save the forests of Africa!

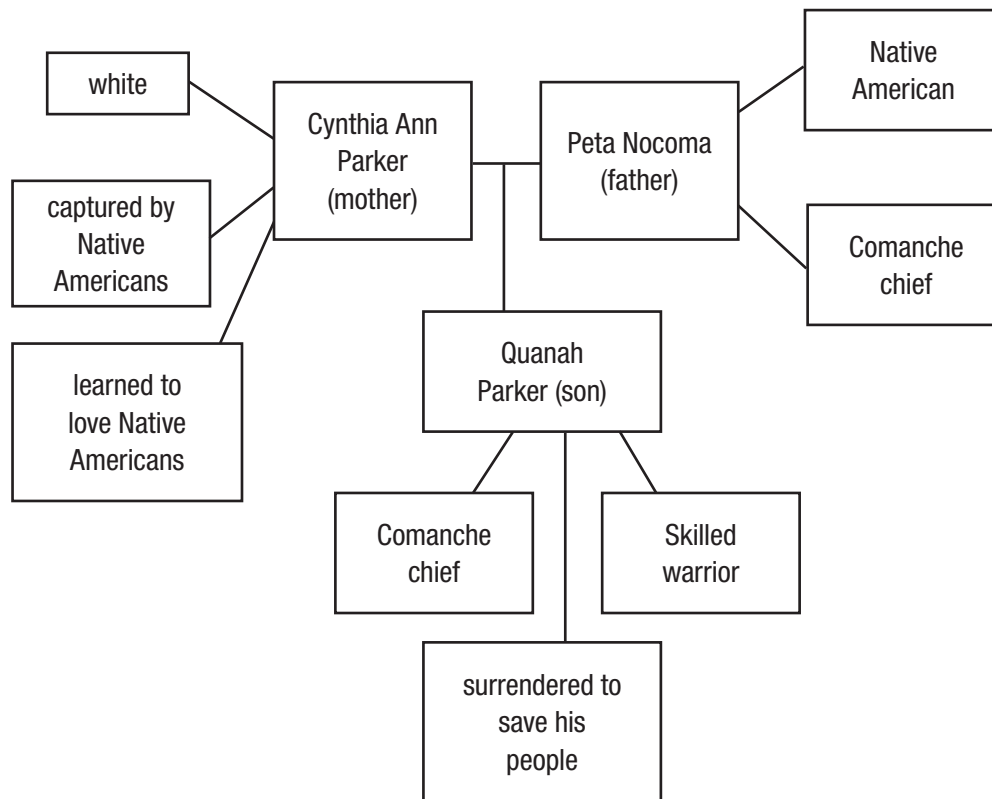
How are courage and imagination linked?

“Between Two Worlds”

SUMMARY

The famous Comanche chief Quanah Parker was influenced by two different cultures. Quanah’s mother was the child of white settlers. Native Americans captured her as a young child during a raid. Raised by Native Americans, she embraced that life and refused to leave it. Her son, Quanah, led his people during the transition to reservations. Though he and the Comanche fought hard to keep their lands, Quanah understood that it was a fight they could not win. He went on to be a successful businessman with a wide circle of friends—both Native Americans and whites.

Visual Summary



Use What You Know

What do you think the title, "Between Two Worlds," means?

Text Structure

A social studies text often has highlighted vocabulary words.



Their definitions are at the bottom of the page. Circle the second highlighted word on this page. Look at its definition. Rewrite the sentence the term appears in without using the word.

Reading Strategy: Classify

Good readers classify, or arrange, people, places, things, and ideas into groups to see how they are alike or different. What positive things are said about the Comanches? What negative things are said about them?

"Between Two Worlds"

One of the most famous Native American chiefs had an interesting **heritage**. His mother was a white woman, and his father was a great Comanche chief. Quannah Parker was the last chief of the Comanches. He was a fearless **warrior**, a brave leader, and a man who could **adapt** to any situation. His story is a fascinating one.

The Comanches were nomads who traveled from place to place. They lived in tepees, a kind of tent made from animal skins stretched over wooden poles. They were skilled horsemen and traders. The men hunted and the women gathered berries and other **edible** plants. When food became **scarce**, they packed up their tepees and traveled to a better spot. The women were responsible for taking down the tepees and putting them up again when they found a new place to settle. They were careful not to break the wooden poles or tear the animal skins.

The Comanches were very good traders. Many of them were gifted in languages. They could speak some of the European languages as well as a number of the Native American languages. Some people say many of the things they traded were stolen. They raided ranches to steal horses and cattle. They even captured women and children.

heritage, traditional beliefs, values, and customs
warrior, soldier or fighter
adapt, gradually change behavior to be successful
edible, safe to eat
scarce, low in supply

Quanah's mother was a young white woman named Cynthia Ann Parker. Her family settled in what is now central Texas along the **headwaters** of the Navasota River. The Parker family built a settlement with a **fort** for **protection**. Then in 1836, several Native American groups attacked the fort. Cynthia Ann was 11 or 12 years old when she was captured, or taken prisoner, during the raid. At first she was not treated well by her **captors**. They beat her and made her work very hard. After a while, she was given to a Comanche couple. They loved her and treated her like their own daughter. They taught her the Comanche language and customs.

As Cynthia Ann grew up, she learned to love the Native American ways. She married a young chief, Peta Nocomo. They had three children, two boys and a girl. Her oldest son was Quanah. Years later, when the white settlers tried to get her back, Cynthia Ann refused to go. She loved her family and loved the Native American ways. Eventually, when she was captured by white people, she was locked in a room to keep her from returning to her Native American family.

headwaters, streams that form a river
fort, strong building defended by soldiers
protection, a way of keeping someone or something safe
captors, those holding others prisoner

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Comprehension Check

Circle the year that the fort was attacked. Who was captured?



Reading Strategy: Classify

What happened to Cynthia Ann when she was captured? What happened after she was given to a Comanche couple?

Comprehension Check

Why didn't Cynthia Ann want to leave the Comanches?

Comprehension Check

Why was Quanah said to be a good leader?

Text Structure

A social studies text often includes explanations of new words. How does the reading explain *reservations*?

Comprehension Check

Why didn't Quanah trust the armies?

Cynthia Ann's son, Quanah, grew up to become the chief. He was a wise leader and tried his best to **guide** his people. He was a **skilled** warrior. He was creative in the ways he defeated other Comanche **bands** and Native American tribes. He used this imagination to keep one step ahead of the white armies. These bands of soldiers wanted the Comanches to live on reservations. Reservations were areas of land that the white settlers didn't want. They forced the Native Americans to live on these plots of land so that they could settle the Native American lands themselves. The armies promised the Native Americans they would be well taken care of.

Quanah did not **trust** the armies. He had heard some of these **promises** before. He didn't trust them to keep their word. So he decided to go to war. He fought the armies to keep his people free.

-
- guide**, show the way
 - skilled**, trained and experienced
 - bands**, groups within a larger group
 - trust**, believe in honesty and goodness of someone or something
 - promises**, statements indicating that what is expected will definitely be done

The battles continued until Quanah realized there was no hope of winning. His people were starving and his braves were tired of fighting. He realized that surrender was his only option, even though he had never lost a battle with the white settlers. It took a lot of courage on that June day in 1875 for Quanah and his warriors to surrender to the army at Fort Sill.

Quanah learned the ways of the white man, but he never gave up some of his Comanche customs. He still followed his Native American ways of worship. He became a prosperous rancher and eventually had a large herd of cattle. In his time he met many famous people. He even went hunting with President Theodore Roosevelt.

You could say that Quanah Parker lived between two worlds. Perhaps, at times, he was able to appreciate what was good in each of them.

braves, young Native American men
surrender, officially stop fighting; give up
option, choice
prosperous, well off; rich and successful

Choose one and complete:

1. Do you know anyone else who lives or lived "between two worlds"? Describe the person, and the things that made these two worlds different.
2. Where was Fort Sill? Go to the library or look on the Internet and find Fort Sill on a map.
3. Imagine you are a TV reporter who is going to interview Quanah Parker. Write a list of five questions to ask about his life.

Text Structure

A social studies text often includes important events in history. Circle the month, year, and place where Quanah surrendered.



Comprehension Check

What happened to Quanah after he surrendered?

**Reading Strategy:
Classify**

Look at the title again. How did Quanah live "between two worlds"?

READING WRAP-UP

Retell It!

How did Quanah Parker show courage in his fights? Explain how he fought against the whites until his surrender.

Reader's Response

Do you think living between two worlds was a good thing for Quanah Parker? Why or why not?

Think About the Skill

How did classifying help you better understand the article?

EDIT FOR MEANING

Read

You have read “Between Two Worlds.” Now read one paragraph from it again.

“Between Two Worlds”

Quanah learned the ways of the white man, but he never gave up some of his Comanche customs. He still followed his Native American ways of worship. He became a prosperous rancher and eventually had a large herd of cattle. In his time he met many famous people. He even went hunting with President Theodore Roosevelt.



Fix the Error

Each paragraph below contains the same information as the paragraph you just read. However, each paragraph contains one error. First, find the error. Then fix it by editing the sentence so the information is correct.

1. Find and fix the error.

“Between Two Worlds”

Quanah learned the ways of the white man, but eventually he gave up some of his Comanche customs. He followed the white man’s ways of worship. He became a prosperous rancher and eventually had a large herd of cattle. In his time he met many famous people. He even went hunting with President Theodore Roosevelt.

2. Find and fix the error.

“Between Two Worlds”

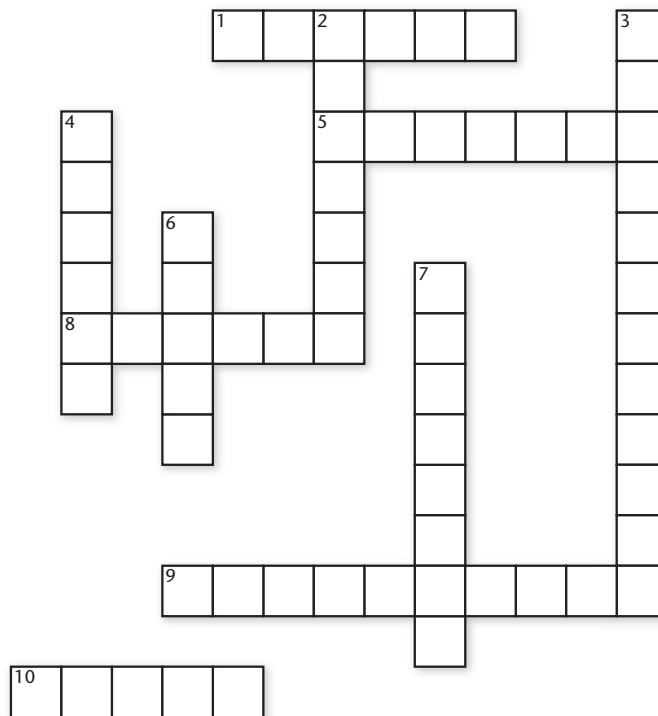
Quanah learned the ways of the white man, but he never gave up some of his Comanche customs. He still followed his Native American ways of worship. He became a prosperous rancher and eventually had a large herd of cattle. In his time he met only a few famous people. One time he went hunting with President Theodore Roosevelt.

FOCUS ON DETAILS

Crossword Puzzle

To complete this crossword puzzle, choose words from the box. Not all the words are answers to the puzzle. Use the clues to help you. You can also search for details in the reading to learn more about the words and clues below.

ADAPT	CHIEF	NOMAD	PROSPEROUS	SCARCE
ARMIES	EDIBLE	OPTIONS	PROTECTION	SURRENDER
CAPTURED	GIFTED	PROMISE	RESERVATIONS	TEPEES



Across

- The Native Americans lived in these tents.
- These are choices a person can make.
- This means you can eat something.
- This kind of person is rich and successful.
- This type of person moves from place to place often.

Down

- If you make one of these, you say you will definitely do something.
- This is land that tribes of Native Americans live on.
- This means a person is able to do something very well.
- This is the leader of a tribe.
- This is what happened to Cynthia Ann when she was young.

READ FOR FLUENCY

1. Silently read the text below. Make sure you understand the point that each sentence is making.
2. Underline the word or words in each sentence that are most important. When you read, you should say these underlined words with expression.
3. Look again at the punctuation in the paragraphs. Remember that when a sentence ends in a period, you should read the words as a statement and take a breath before beginning a new sentence. When you see a comma, you should pause briefly. When you see an exclamation mark, you should sound excited. When you see a question mark, you should read as though you are asking a question.
4. Now read the paragraphs below out loud. Pay attention to the important words and punctuation as you read.
5. Write down any words that slowed you down. Practice saying these words out loud.
6. Read the text below out loud two more times. You may want to ask a friend or family member to listen to you and tell you their reactions to your reading.

Between Two Worlds

Quanah did not trust the armies. He had heard some of these promises before. He didn't trust them to keep their word. So he decided to go to war. He fought the armies to keep his people free.

The battles continued until Quanah realized there was no hope of winning. His people were starving and his braves were tired of fighting. He realized that surrender was his only option even though he never lost a battle with the white settlers. It took a lot of courage on that June day in 1875 for Quanah and his warriors to surrender to the army at Fort Sill.

What is your vision of life in the future?

“Life in the Future”

SUMMARY

This passage predicts what our lives will be like in the future. A timeline shows predictions from the year 2012 to 2035. By 2100, the world’s population will be 11 billion people. As the population grows, more and more people will live in tall buildings. The buildings will be like small cities. People will ride in cars that steer themselves and fly in hypersonic airplanes. The airplanes will travel five times faster than the speed of sound. People may also be able to fly with personal jetpacks. They may even live on Mars some day.

Visual Summary

Life in the Future		
How We Might Live	How We Might Travel	How We Might Explore
The population might reach 11 billion people by the year 2100.	Transportation might be much faster and greatly improved.	We might explore other planets.
We might live in tall apartment buildings that are like small cities.	Hypersonic planes might fly into outer space.	Astronauts could travel to Mars by 2020.
	Cars might steer themselves.	People might live on Mars one day.
	People might use personal flying machines called jetpacks.	

Use What You Know

Make one prediction about what life will be like one hundred years from now.

Text Structure

Science articles sometimes include timelines to show important discoveries from the past. How is this timeline different? Circle the last year on the timeline. Name one thing the text predicts might happen by that year.



Reading Strategy: Take Notes

Taking notes can help you organize and remember what you read. Arranging your notes by topic can make them easier to use later. What is the topic of the text on this page?

“Life in the Future”

Imagine traveling in a time machine into the future. What do you think life will be like? This timeline shows some predictions about the future.

- 2012 — fire-fighting robots that can find and rescue people
- 2013 — clothes that become cooler or warmer depending on the temperature
- 2014 — robotic pets
- 2015 — telephone calls between speakers of different languages translated in real time
- 2016 — humans traveling to Mars

- 2020 — cars that drive themselves on automated highways; artificial lungs, kidneys, and brain cells

- 2025 — underground cities

- 2030 — more robots than people in some countries

- 2035 — fully functioning artificial eyes and legs; people **cured** of 98 percent of all cancers

cured, healed; restored to health

The Growing World

The world's population is growing very fast. In 1800, the population was about 1 billion. Now it is over 6.5 billion. One reason for this fast growth is that the birthrate is higher than the death rate. That is, there are more people being born than there are people dying. Also, medical advances and better living conditions help people live longer. Scientists predict that in the year 2100, the population will be 11 billion.

Future Cities

As the population grows, it will be necessary to rebuild existing cities and build new ones. Some apartment buildings will be like small cities. Architects have created a model for an apartment building in Tokyo. It will be 840 meters (2,750 ft.) high and will have 180 floors. A population of 60,000 will be able to live there. High-speed elevators will carry sixty people at a time. The building will have stores, restaurants, and cinemas. People won't ever have to leave!

elevators, machines in a building that carry people from one floor to another

Comprehension Check

Draw a box around the sentence that gives one reason why the world's population is growing very fast. How many people live in the world today?



Text Structure

A science article often has headings. Headings can signal a change in the topic or a new direction. Circle the second heading on this page. What part of life in the future will this section describe?



Reading Strategy: Take Notes

Underline details you might include in notes on the model of a future apartment building. How many floors does the model have?



How is this apartment building of the future different from the ones we live in today?

Comprehension Check

Underline the name of the organization that is developing a hypersonic plane. How will it be different from a normal plane?



Text Structure

A science text often has highlighted vocabulary terms. Their definitions are at the bottom of the page. Circle the highlighted term on this page. Look at its definition. Rewrite the sentence the term appears in without using the highlighted word.



Reading Strategy: Take Notes

List three details you might include in notes on the design and look of the hypersonic plane.

1. _____
2. _____
3. _____

Hypersonic Planes

The National Aeronautics and Space Administration (NASA) is developing a hypersonic plane that will be able to fly at least five times faster than the speed of sound. It will be able to fly to outer space. NASA has produced a \$230 million **prototype** plane, but it doesn't expect to use it for space travel until about 2020.

The X-43A prototype plane looks like a flying surfboard. It is thin and has a wingspan of 1.5 meters (5 ft.). It is 3.6 meters (12 ft.) long and weighs 1,270 kilograms (2,800 lbs.). This plane set a new world speed record by flying nearly ten times the speed of sound. A working version of the X-43A will be about 60 meters (200 ft.) long.

prototype, model



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Cars of the Future

As more people own cars, the roads become more crowded. This causes more traffic jams and more accidents. The cost of traffic jams in the United States is about \$78 billion per year—4.5 billion hours of travel time plus 26 billion liters (7 billion gal.) of fuel wasted sitting in traffic.

Car manufacturers are always looking for ways to make cars safer, faster, and more convenient. In the future, there may be automated highways. On these highways, cars will **steer** themselves. They will go faster and brake by themselves. Cars will have computers that pick up signals from **magnets** in the road.

steer, guide

magnets, pieces of iron that attract other pieces of iron



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Comprehension Check

Circle the amount of money traffic jams cost the United States each year. What is one reason for the high number of accidents that also occur?



Text Structure

Draw a box around the first highlighted vocabulary term on this page. Look at its definition. Then use the term in a new sentence.



Reading Strategy: Take Notes

List three details you might include in notes about cars of the future.

1. _____
2. _____
3. _____

Comprehension Check

Draw a box around the name of an artist who designed flying machines long ago. Has a jetpack been easy to design?



Comprehension Check

Circle the sentence that describes what a jetpack is. What is one question you have about jetpacks?



Comprehension Check

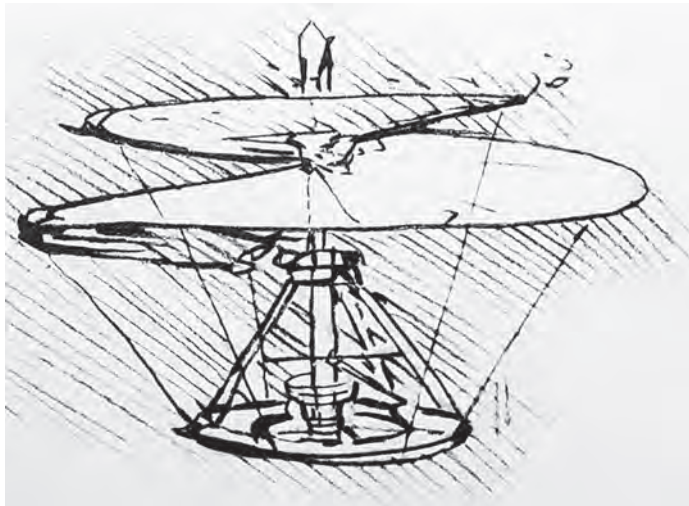
Underline the sentence that explains how a jetpack was used at the Olympics. Can jetpacks currently fly for a long time?



Jetpacks

People have always dreamed of flying. In the fifteenth century, the Italian artist Leonardo da Vinci drew many designs of flying machines. But a personal flying machine—or jetpack—has proved to be one of the most difficult inventions.

Jetpacks have appeared in such movies as *The Rocketeer*, *Spy Kids*, and *Minority Report*. A “rocket man” flew into the opening ceremony of the 1984 summer Olympics in Los Angeles. Jetpacks today can fly for only a short time. In the future, they will fly longer and go faster.



One of the most successful jetpacks is the Trek Aerospace Exoskeleton Flying Vehicle (EFV-4A). The EFV uses propellers to lift you off the ground. Once in the air, you can zip over treetops at 181 kilometers (113 mi.) per hour for 296 kilometers (184 mi.) before refueling.

New Frontiers

Throughout history, humans have loved to explore. Today, we have explored most of our planet. There are few new lands to explore, but there are new worlds, new planets, and new galaxies.

zip, move very fast
refueling, refilling with gasoline, oil, or some other fuel
galaxies, very large groups of stars



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Comprehension Check

Underline the sentence that tells how one of the most successful jetpacks gets off the ground. What is this jetpack called?



Text Structure

Circle the first highlighted vocabulary word on this page. Look at the definition. List three synonyms for this word.



1. _____
2. _____
3. _____

Comprehension Check

Circle the sentence that tells how much of Earth we have explored. What new places are left to explore?



Comprehension Check

Draw a box around the kind of machine that has traveled to Mars. Have people ever made the trip?



Reading Strategy: Take Notes

List three details you would include in notes on the planet Mars.

1. _____
2. _____
3. _____

Text Structure

Circle the last highlighted vocabulary term on this page. Look at the definition. Rewrite the sentence the term appears in without using it.



In the future, perhaps we will **colonize** other planets. The most likely planet will be Mars. NASA scientists have already sent probes—spacecraft without people—to explore Mars. But when will people be able to go there? Astronauts could travel to Mars by about 2020. However, it will be a difficult task! It will take six months to reach the red planet. (It takes only three days to reach the moon.) And Mars is not a friendly environment. Mars probably once had liquid water, but now it is a cold, rocky desert. It has the largest volcano in the solar system and the deepest canyons. Dust storms can cover the whole planet. There is no breathable **oxygen**.

For people to live on Mars, the cities will have to be protected from the **poisonous** air. Giant **domes** will have to be built to control the atmosphere. All food will have to be grown inside the domed cities.

colonize, set up human communities
oxygen, a gas in the air that all plants and animals need in order to live
poisonous, deadly
domes, round roofs

Earth-Mars Comparison

	Earth	Mars
Average distance from sun	150 million kilometers (93 million mi.)	228 million kilometers (142 million mi.)
Length of year	365.25 days	687 Earth days
Length of day	23 hours, 56 minutes	24 hours, 37 minutes
Temperature	average 14°C (57°F)	average -63°C (-81°F)
Atmosphere	nitrogen, oxygen, argon, others	mostly carbon dioxide, some water vapor
Number of moons	1	2

Choose one and complete:

1. Draw a picture of a scene or activity that might take place in the future.
2. Create a brochure to encourage people to move into an apartment building in the future. Describe what it looks like and explain why people might want to live there.
3. Create a poster about Mars. Include important details about the planet.

Text Structure

A science article often has charts that compare information. Circle the two planets this chart compares. How many moons does each one have?



Reading Strategy: Take Notes

List three facts you would include in notes about the planet Earth.

1. _____
2. _____
3. _____

Comprehension Check

Draw boxes around the length of day on Earth and on Mars. How much longer is a day on Mars than on Earth?



READING WRAP-UP

Retell It!

How will transportation be different in the future? Describe what automobile and air travel might be like.

Reader's Response

Do you think people will live on the planet Mars in the future? Explain why or why not.

Think About the Skill

How did taking notes help you better understand the article?

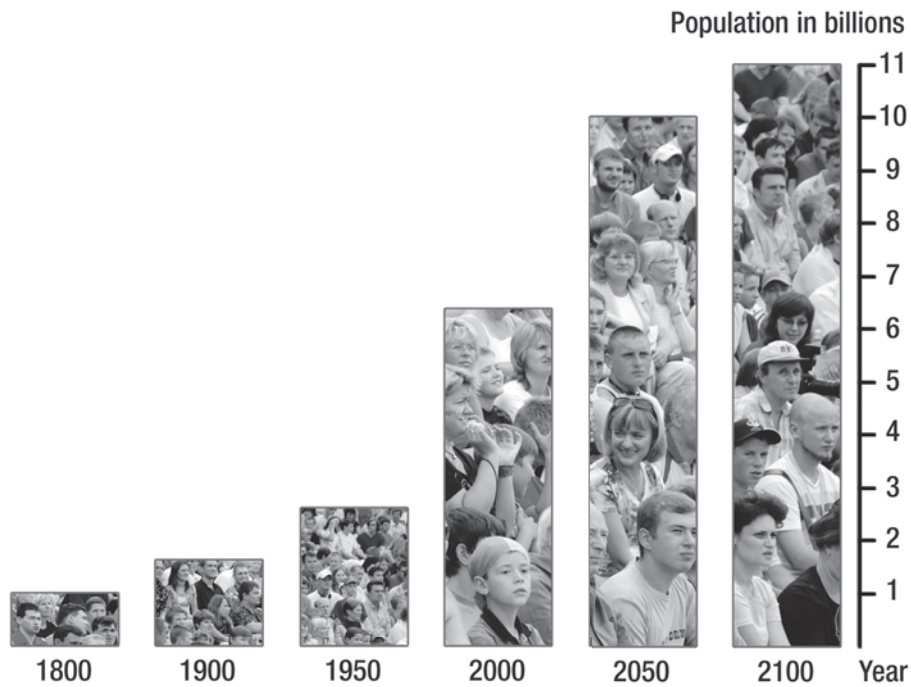
EDIT FOR MEANING

Read

You have read "Life in the Future." Now read one paragraph from it again.

The Growing World

The world's population is growing very fast. In 1800, the population was about 1 billion. Now it is over 6.5 billion. One reason for this fast growth is that the birthrate is higher than the death rate. That is, there are more people being born than there are people dying. Also, medical advances and better living conditions help people live longer. Scientists predict that in the year 2100, the population will be 11 billion.



Fix the Error

Each paragraph below contains the same information as the paragraph you just read. However, each paragraph contains one error. First, find the error. Then fix it by editing the sentence so the information is correct.

1. Find and fix the error.

The Growing World

The world's population is steadily shrinking. In 1800, there were only about 1 billion people in the world. Now there are more than 6.5 billion. This is partly due to the fact that the birthrate is higher than the death rate. That means more people are being born than people are dying. This is because better living conditions and advances in medicine help people live longer. Scientists predict the population will be 11 billion by the year 2100.

2. Find and fix the error.

The Growing World

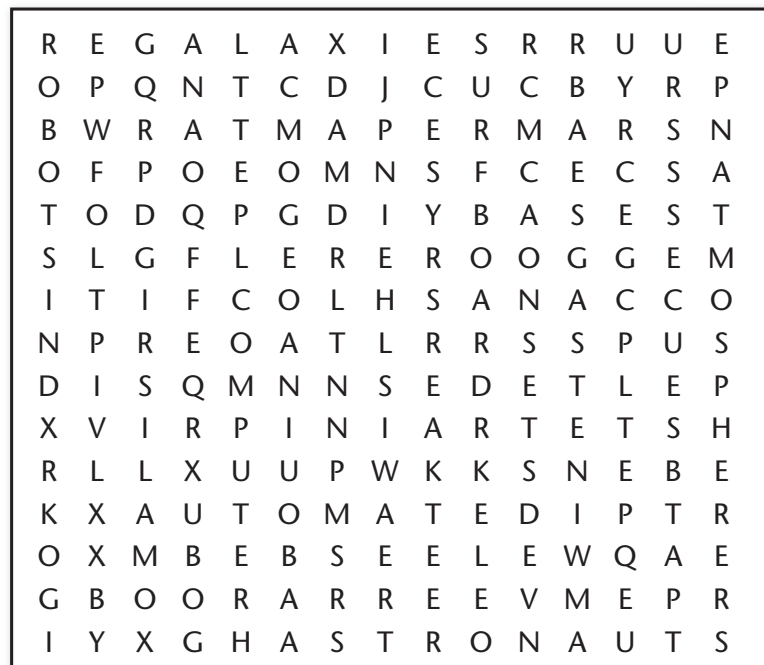
The world's population is growing very fast. In 1800, the population was about 1 billion. Today, that number has increased by about 5.5 billion. One reason for this fast growth is that the birthrate is higher than the death rate. There are fewer people being born than dying. Scientists predict that in about 100 years, the population will be 11 billion.

FOCUS ON DETAILS

Word Search Puzzle

To complete this word search puzzle, you'll need to remember or search for details in the reading. Write the word from the text next to each clue. Then circle the answers in the puzzle below.

1. By 2009, these machines might rescue people: _____
2. One day, people will colonize this planet: _____
3. One of the most successful jetpacks uses these to get off the ground: _____
4. In the future, cars might drive down this kind of highway: _____
5. The X-43A plane looks like this: _____
6. We still have new worlds, planets, and these to explore: _____
7. They could travel to Mars by about 2020: _____
8. These are deeper on Mars than any other planet in the solar system: _____
9. In the future, a car might use this to pick up signals from the road: _____
10. Giant domes will have to be built on Mars to control this: _____



READ FOR FLUENCY

1. Silently read the text below. Make sure you understand the point that each sentence is making.
2. Underline the word or words in each sentence that are most important. When you read, you should say these underlined words with expression.
3. Look again at the punctuation in the paragraphs. Remember that when a sentence ends in a period, you should read the words as a statement and take a breath before beginning a new sentence. When you see a comma, you should pause briefly. When you see an exclamation mark, you should sound excited. When you see a question mark, you should read as though you are asking a question.
4. Now read the paragraphs below out loud. Pay attention to the important words and punctuation as you read.
5. Write down any words that slowed you down. Practice saying these words out loud.
6. Read the text below out loud two more times. You may want to ask a friend or family member to listen to you and tell you their reactions to your reading.

New Frontiers

In the future, perhaps we will colonize other planets. The most likely planet will be Mars. NASA scientists have already sent probes—spacecraft without people—to explore Mars. But when will people be able to go there? Astronauts could travel to Mars by about 2020. However, it will be a difficult task! It will take six months to reach the red planet. (It takes only three days to reach the moon.) And Mars is not a friendly environment. Mars probably once had liquid water, but now it is a cold, rocky desert. It has the largest volcano in the solar system and the deepest canyons. Dust storms can cover the whole planet. There is no breathable oxygen.

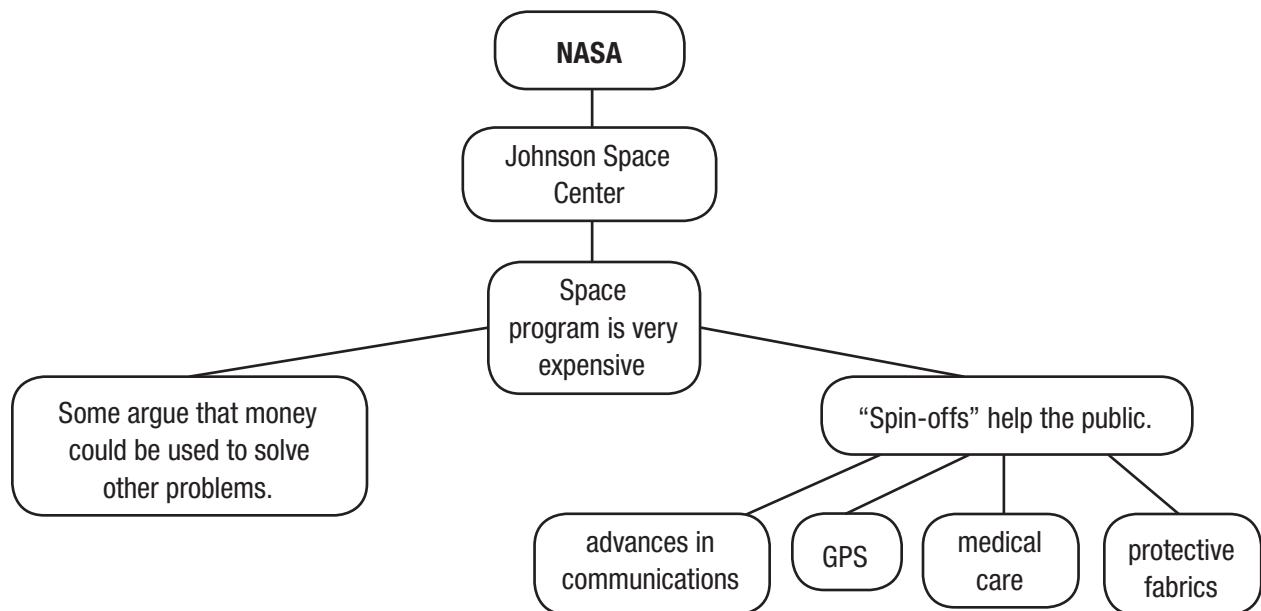
What is your vision of life in the future?

“NASA and the U.S. Space Program”

SUMMARY

The heart of NASA, the National Aeronautics and Space Administration, is the Johnson Space Center in Houston, Texas. The Johnson Space Center is Mission Control for all U.S. space missions. During the mission of *Apollo 13*, an explosion damaged the spacecraft. The people at the Johnson Space Center solved a serious problem to bring the astronauts home. The cost of the space program has been controversial for years. The program has provided much more than pictures from space. Advances in communications, GPS, medical care, and protective fabrics have all resulted from the space program. Solving problems and improving our lives is also NASA’s mission.

Visual Summary



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Use What You Know

List three things that NASA has done to explore space.

1. _____
2. _____
3. _____

Text Structure

A science text often has highlighted vocabulary words. Their definitions are at the bottom of the page. Circle one of the highlighted terms on this page. Look at its definition. Rewrite the sentence the term appears in without using the word.



Reading Strategy: Employ Analytical Skills

Understanding the structure of an organization can help you understand how the different parts fit together. How is the Johnson Space Center related to NASA?

“NASA and the U.S. Space Program”

There’s a famous scene in the Hollywood movie *Apollo 13*. Tom Hanks, playing the astronaut James Lovell, says, “Houston, we have a problem!” This has become a popular **expression**. People now say it when joking about a problem. During the real Apollo 13 mission, this line was not a joke. It was one of many scary moments for the space program experienced at the Johnson Space Center in Houston.

An explosion on board the *Apollo 13* spacecraft caused an electrical failure. Many systems in the spacecraft were affected. The astronauts had to change their mission. They had a lunar module, which was a vehicle designed to explore the moon. Instead of landing on the moon, they had to use their lunar module for power and life support until they could make the journey back to Earth.

Though they were alone in space, the astronauts had help on the ground. A professional team in Houston worked hard to solve the problem. The challenge they faced was how to get the astronauts home.

NASA is the National Aeronautics and Space Administration. This **agency** directs the U.S. space program. The Johnson Space Center is one of 11 NASA **facilities**. Here, hundreds of astronauts have been trained. NASA made the United States the world leader in space exploration.

expression, phrase
agency, organization
facilities, places or buildings

The Space Program Controversy

Missions into space are very expensive. All of the equipment for a mission is designed for the **harsh** conditions in space. A rocket must be able to **overcome** the force of Earth's gravity to reach its destination.

Fortunately, the Space Shuttle program enables NASA to reuse spacecraft. But the cost of a new mission is still high. Each shuttle mission averages about 450 million dollars. The space shuttle *Endeavor* cost 1.7 billion dollars to build. You can understand why some people feel that the space program is too expensive. They would like to see its funding greatly reduced or cut off completely.

Their argument that this money could be used to solve other problems seems to make sense. However, NASA and the Johnson Space Center provide much more to the **public** than the exploration of space.

Spin-Offs

Does anyone in your family have a cell phone? Maybe your family has satellite TV. Have you been in a car that has a GPS (Global Positioning System)? All of these common technologies have their **roots** in the space program.

A visit to any hospital also shows NASA **creativity** in action. New technology is used to image and monitor patients. Some of the devices are **spin-offs** that were originally developed to monitor the astronauts during training and spaceflight. Researchers have learned much about

harsh, severe or difficult
overcome, break free of
public, people in a society
roots, starting points
creativity, imagination
spin-offs, things based on the design of something else

Text Structure

Draw a box around the first highlighted word on the page. Look at the definition. Then use the word in a new sentence.



Comprehension Check

Circle the words that tell the average cost of a shuttle mission. Why are missions so expensive?



Reading Strategy: Employ Analytical Skills

Why do you think the writer begins the fourth paragraph on this page with questions for the reader?

Comprehension Check

How has the development of the space suit affected what firefighters wear?

Text Structure

Science articles often contain descriptions of important places. Why is the Mission Control building important?

**Reading Strategy:
Employ Analytical Skills**

Why has the old Mission Control building been preserved as a historic site? Why do you think it is important for people to see this place?

the human body by studying the effects of low gravity on bones and muscles. The Johnson Space Center is home to the Space Environment Simulation Lab, which is used for this purpose.

Life in space is not possible without protection. There is no air to breathe. Temperatures are extreme. The need to create a comfortable space suit resulted in the development of new fabrics. These spin-offs have improved the suits firefighters wear to protect them from high temperatures. Clothing and bedding are now made of new fabrics designed to keep you comfortable in all different temperatures.

The most famous facility at the Johnson Space Center is Mission Control. The new Mission Control building is the “heart” of NASA during a space mission. Mission control specialists are in contact with the astronauts from before the launch until they are safely home. They even play music to wake the astronauts each morning. This new building has state of the art equipment.

The old Mission Control building has been preserved as a historic site. It shows what things were like in the early days of the space program, when a mission to the moon was only a dream. The vision of many great scientists made that dream a reality.

Advances in Communication

It was NASA that made wireless communication happen. By the early 1960s, NASA was able to put satellites into orbit. This achievement started a revolution in communications. Private companies

heart, center of
specialists, people that are very skilled in something
launch, time when a spacecraft is sent into the sky
satellites, objects that orbit Earth
orbit, path traveled by an object around a larger object
revolution, major change

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understood how life could change. With a satellite, signals could be sent and received in all parts of the world. We could see what was happening “live” anywhere in the world. Communications satellites now bring us live TV from all parts of the world. We can talk to people almost anywhere at any time with cell phones. Satellite pictures help in predicting severe weather. We can watch weather patterns as they form. We can warn people to take shelter before a storm hits. None of this would have been possible without the space program.

What’s Next?

The Space Shuttle program ended in 2011 after thirty years. But NASA says this is not the end of sending humans into space. NASA has many plans for the future, including deep-space exploration. The **unmanned** Mars Science Laboratory is scheduled to land on Mars in 2012. A new rover called Curiosity will explore Mars to determine whether it is **habitable**. Eventually, NASA plans to send astronauts to Mars, but doing this safely remains a huge challenge.

In 2012, NASA plans to launch the Nuclear Spectroscopic Telescope Array to search for black holes, map supernova explosions, and study distant galaxies. Another unmanned spacecraft, Juno, was launched in 2011 and is scheduled to arrive on Jupiter in 2016. The International Space Station (ISS) and its programs have been extended through 2020. The ISS will continue to conduct experiments in biology, physics, astronomy, and meteorology. NASA is committed to using this **unique** resource for scientific research.

unmanned, without humans on board
habitable, suitable for people to live on
unique, special; one-of-a-kind

Reading Strategy: Employ Analytical Skills

How might some of the developments in satellite technology that are listed here help save people’s lives?

Comprehension Check

How can you find out more about the Johnson Space Center?

Text Structure

Circle the second highlighted vocabulary term on this page. Look at the definition. Then rewrite the definition in your own words.



Choose one and complete:

1. Create a timeline showing the different space missions that NASA has managed.
2. Imagine you are a reporter. What would you ask an astronaut in an interview?
3. Imagine you are making a documentary on the Apollo 13 mission. What kind of information would you like to include? Describe your ideas.

READING WRAP-UP

Retell It!

What is the Johnson Space Center? Describe what happens there.

Reader's Response

Would you like to visit the Johnson Space Center? Why or why not?

Think About the Skill

How did employing analytical skills help you better understand the article?

EDIT FOR MEANING

Read

You have read "NASA and the U.S. Space Program." Now read one paragraph from it again.

"NASA and the U.S. Space Program"

An explosion on board the *Apollo 13* spacecraft caused an electrical failure. Many systems in the spacecraft were affected. The astronauts had to change their mission. They had a lunar module, which was a vehicle designed to explore the moon. Instead of landing on the moon, they had to use their lunar module for power and life support until they could make the journey back to Earth.



Fix the Error

Each paragraph below contains the same information as the paragraph you just read. However, each paragraph contains one error. First, find the error. Then fix it by editing the sentence so the information is correct.

1. Find and fix the error.

“NASA and the U.S. Space Program”

An explosion on board the *Apollo 13* spacecraft caused an electrical failure. Many systems in the spacecraft were affected. The astronauts were able to complete their mission. They had a lunar module, which was a vehicle designed to explore the moon. Instead of landing on the moon, they had to use their lunar module for power and life support until they could make the journey back to Earth.

2. Find and fix the error.

“NASA and the U.S. Space Program”

An explosion on board the *Apollo 13* spacecraft caused an electrical failure. Many systems in the spacecraft were affected. The astronauts had to change their mission. They had a lunar module, which was a vehicle designed to get the astronauts back to Earth. Instead of landing on the moon, they had to use their lunar module for power and life support until they could make the journey back to Earth.

FOCUS ON DETAILS

Mystery Word Puzzle

To complete this mystery word puzzle, you'll need to remember or search for details in the reading. Use the clues to help you unscramble each of the words. Write the words in the boxes. The numbered letters will form the mystery word.

1. NASA has learned from its successes as well as its _____.

STAMIKES

--	--	--	--	--	--	--	--

3 7 10

2. This happened on board the Apollo 13 rocket.

ELONPOSIX

--	--	--	--	--	--	--	--	--	--

6 14

3. This is how many astronauts have been trained at the Johnson Space Center.

DUNSDREH

--	--	--	--	--	--	--	--

2

4. The Johnson Space Center is located in this city.

TNSHUOO

--	--	--	--	--	--	--	--

13

5. Pictures from this can help predict severe weather.

LSAETITL

--	--	--	--	--	--	--	--	--	--

8

6. This is when a spacecraft leaves Earth.

HUNLAC

--	--	--	--	--	--

1 5

7. The Mission Control building is the _____ of NASA during a mission.

TAREH

--	--	--	--	--

9 11

8. Visiting the Johnson Space Center can change your _____ of the future.

SNIVIO

--	--	--	--	--	--

12

9. You can learn more about the Johnson Space Center here.

SWITSBEE

--	--	--	--	--	--	--	--

4

NASA stands for the National Aeronautics and Space _____.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

1 2 3 4 5 6 7 8 9 10 11 12 13 14

READ FOR FLUENCY

1. Silently read the text below. Make sure you understand the point that each sentence is making.
2. Underline the word or words in each sentence that are most important. When you read, you should say these underlined words with expression.
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4. Now read the paragraphs below out loud. Pay attention to the important words and punctuation as you read.
5. Write down any words that slowed you down. Practice saying these words out loud.
6. Read the text below out loud two more times. You may want to ask a friend or family member to listen to you and tell you their reactions to your reading.

The Johnson Space Center

A trip to the Johnson Space Center in Houston can change your vision of life in the future. If you can't be there in person, NASA has many interesting websites. You can learn about current space missions. You can find out what we've learned about life on other planets. You can find out more about what happened on the Apollo 13 mission. You can even download videos from some of the NASA websites. Also, don't forget that you can always find many books in the library on space. Who knows? One day you might work at the Johnson Space Center. And if you ever travel in space, you will have the best ground crew. Houston knows how to solve problems.

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