

Dear Parent and/or Guardian,  
 Please use the guidance document below to help your child complete their work each day. Please note that social studies and science are integrated into the literacy selections. There is a math answer key in the folder for you to check your child's work and help with any challenges they are having.

Thank you!

**Guidance Document, 4th Grade**

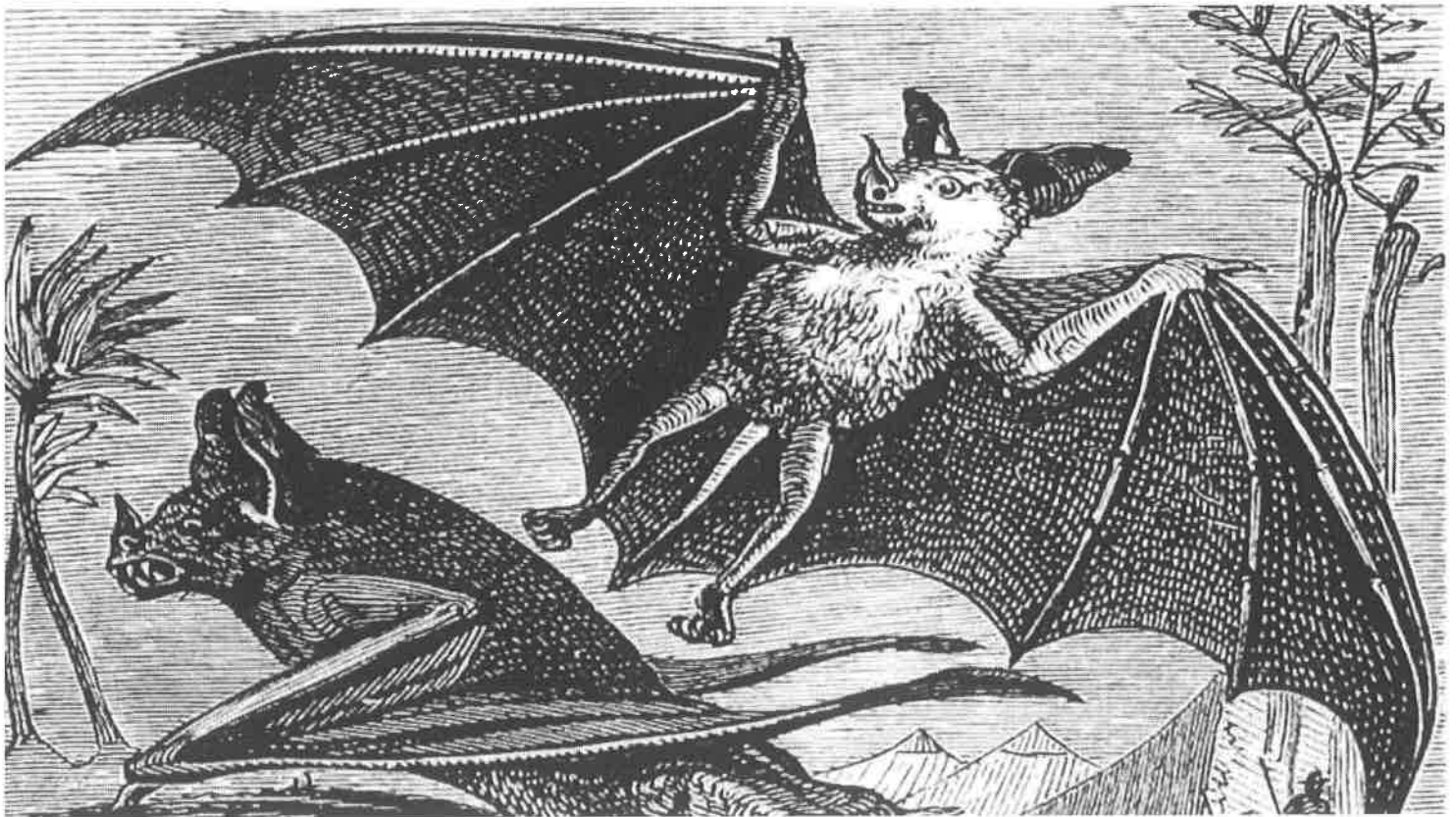
|  | <b>Day 1</b>  | <b>Day 2</b>  | <b>Day 3</b>  | <b>Day 4</b>   | <b>Day 5</b>   |
|--|---|---|---|--|--|
| <b>Literacy integrated with science and social studies</b> | Science integration: Vampires   | Social studies: Countries of the World  | Science integration: Camel Spiders  | Social studies integration: Kids in South Korea  | Science integration: Hawaiian Volcano  |
| <b>Mathematics</b>   | Lessons: Multi-Digit Addition Review and Additional Story Problems.<br>Pages 1 and 2      | Lessons: Multi-Digit Subtraction Review and Subtraction Story Problems<br>Pages 3 and 4 | Lessons: Add, Subtract & Multiply and Shopping Problems<br>Pages 5 and 6      | Lessons: Addition, Subtraction & Clock Problems and Miles, Books & Jellybeans<br>Pages 7 and 8 | Lessons: Round 'Em Up! And Centimeters, Decimeters & Meters<br>Pages 9 and 10    |
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# Feed me, Seymour: Vampire plants that suck the life out of others

By Mongabay, adapted by Newsela staff on 03.15.17

Word Count **624**

Level **710L**



The vampire bat of South America. Image from: Wikimedia Commons.

For much of human history, the world seemed full of monsters. Sailors feared savage sea serpents. Travelers shivered at howls in the night, imagining a werewolf on the prowl. Villagers had nightmares about blood-sucking vampires.

The belief in monsters shrank as scientists found out more about the world. Vampires, for example, now only haunt us in made-up stories. At least that's true of the kind that wear capes and have fangs.

There are real vampires in the world of nature, though. They fly in the air and creep on the earth. They feed on the life of others.

## Vampire Bats Inspired Dracula

Vampire bats may be the most famous vampires in nature. They flutter through the forests of Central and South America. They only come out at night. The only food they eat is blood from birds and mammals. Usually, the bats sneak up on sleeping victims and nip them. Then they lap

up the blood with their tongues. Otherwise, these bats do little harm.

Europeans first learned of vampire bats in the 1600s. Tales about blood-sucking bats became part of vampire legend. Vampire bats inspired the writer Bram Stoker. He created Count Dracula, the most famous vampire of all. Dracula, as many people know, can change into a bat.



### **The Sharp-Beaked Ground Finch Doesn't Need Fangs**

In the Pacific Ocean sit the Galapagos Islands. These islands are home to animals found nowhere else in the world. They include giant tortoises and warm-weather penguins. There is also a type of vampire called the sharp-beaked ground finch. This bird uses its beak to cut the skin of sea birds called boobies. Then it slurps their blood.

### **I Want To Drink Your Plant Food**

Vampires also feed in the plant world. Instead of sharp beaks or fangs, these vampire plants use special roots. The roots drill deep into the body of other plants. The vampire plant then steals its victims' food and water.

Mistletoe is a favorite decoration during the holidays. However, it is also a vampire plant. Birds carry its seeds onto tree branches. There, the seeds sprout life-sucking roots that attack the tree. These roots may weaken the host tree but do not kill it. Mistletoe may feed on its host for years.



Eventually, the mistletoe produces new seeds. Birds carry them to new victims. In this way, the life of this vampire plant continues and spreads.

### **The Yellow Rattle Invades**

Vampire plants do not attack humans directly. However, they have made people unhappy in other ways. About 500 years ago, a plant called yellow rattle killed crops in Europe. Its killer roots sucked the life from wheat fields. The roots fed on the plants and wiped out crops. This yellow-flowered vampire caused widespread hunger. Farmers called yellow rattle the "stealer of bread" since it kept food from their families.

England's farmers eventually learned how to protect their food supply. They destroyed yellow rattle before it could produce seeds. By the 1800s, farmers had defeated this vampire plant.

Today, people in England have found good uses for yellow rattle. Planters may use it to kill off grassland plants they don't want. It allows them to control plants that are doing harm.

### **Vampires Plays An Important Role**

Vampires of different kinds live around us. They do not wear capes and suck human blood like they do in movies. We now know real-life vampires are not monsters. They have their own places and parts to play in the natural world.



## Quiz

- 1 How do vampire animals compare to vampire plants?
- (A) Vampire animals extract liquids, while vampire plants extract food.
  - (B) Vampire animals and plants both consume liquids from their prey.
  - (C) Vampire animals extract foods, while vampire plants extract liquid.
  - (D) Vampire animals and plants both consume foods from their prey.
- 2 Read the summary below. Choose the answer choice that BEST fits into the blank to complete the summary.
- Real vampires live among us.  
\_\_\_\_\_.
- These plants and animals are not part of nightmares, they are simply performing a job in their environment.
- (A) Vampires, like sea serpents, werewolves and other monsters, have scared humans for a long time.
  - (B) People first learned about vampires in the 1600s, and they are still very popular in movies and books.
  - (C) They are blood-drinking animals, like vampire bats, and parasitic plants, like mistletoe, that live off other life forms.
  - (D) Most vampire animals live in warm weather areas, and include tortoises and penguins.
- 3 Why was the yellow rattle plant called the "stealer of bread" by farmers?
- (A) The plant was feeding on bread that farmers needed.
  - (B) The plant was attacking people who were eating bread.
  - (C) The plant was using killer roots to grab onto bread.
  - (D) The plant was feeding on crops used to make bread.
- 4 Which of the following BEST describes the structure of "The Yellow Rattle Invades"?
- (A) problem and solution
  - (B) cause and effect
  - (C) compare and contrast
  - (D) chronological order
- 5 How did farmers in England protect their crops from the yellow rattle 600 years ago?
- (A) They killed the yellow rattle before it grew seeds.
  - (B) They killed the yellow rattle after it grew seeds.
  - (C) They planted the yellow rattle near their crops.
  - (D) They planted the yellow rattle away from their crops.
- 6 Select the sentence from "Vampire Bats Inspired Dracula" that BEST explains how vampire bats drink blood.
- (A) Vampire bats may be the most famous vampires in nature.
  - (B) The only food they eat is blood from birds and mammals.
  - (C) Usually, the bats sneak up on sleeping victims and nip them.
  - (D) Europeans first learned of vampire bats in the 1600s.

- 7 How can yellow rattle plants be helpful?
- (A) They can be used as an alternative plant to bake bread.
  - (B) They can be planted to parasitize wheat and other crops.
  - (C) They can be defeated by catching them pre-flowering.
  - (D) They can be planted to keep harmful plants under control.
- 8 Which section highlights another real-life vampire besides the bat that also flies?
- (A) "Vampire Bats Inspired Dracula"
  - (B) "The Sharp-Beaked Ground Finch Doesn't Need Fangs"
  - (C) "I Want To Drink Your Plant Food"
  - (D) "The Yellow Rattle Invades"

# Countries Of The World: South Korea

By National Geographic Kids, adapted by Newsela staff on 02.01.18

Word Count **682**

Level **680L**



Image 1: Seoul is the capital of South Korea. It is also the country's most populated city. Seoul hosted the 1988 Olympic Games. Photo from: Getty Images/Alex Barlow

Korea is a country in East Asia. It occupies a 750-mile-long peninsula. This stretch of land sticks out into the Yellow Sea and the Sea of Japan. Today, Korea is split into South and North Korea.

South Korea has many mountains. They are small when compared with other mountains of the world. Over millions of years, these peaks have been worn down by rain and wind. Most summits in South Korea do not rise above 3,300 feet.

The Korean Peninsula is surrounded by about 3,000 islands. Most of them were formed by volcanic activity. South Korea's Jeju Island features tropical jungle. Jungle also grows in a narrow strip in the south of the country.

## Nature

South Korea is a small country with a big population. As a result, many of the country's natural habitats have been squeezed into small areas. There are 21 national parks. However, the only areas of true wilderness left are mountain forests.

Tigers once roamed Korea. Most were wiped out by hunters. Today there may be none left at all. Some people think a few tigers may still live in the Demilitarized Zone, though. This area is an unpopulated strip of land between North and South Korea.

### People And Culture

South Korea is very crowded. It has 1,294 citizens for every square mile. In contrast, the United States has about 92 people per square mile.

The lives of many Koreans are influenced by Confucianism. This Chinese philosophy teaches respect and moral behavior.

### Government And Economy

The official name of South Korea is the Republic of Korea, or ROK. The ROK government is headed by a president. He or she is elected to a five-year term. The National Assembly is the legislative, or lawmaking, body of the government. It has 300 members. These members serve for four-year terms.

South Korea has one of the strongest economies in Asia. Most of its wealth comes from manufacturing. It makes and exports cars, computers, and other electronic products.

### History

People have been living in Korea for at least 10,000 years. Experts believe the ancestors of today's Koreans came from Mongolia and Siberia.

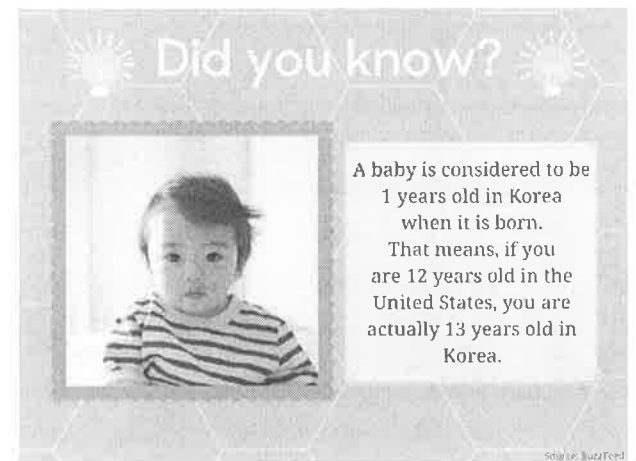
Korea's first kingdom is known as Gojoseon, or Old Chosun. It ruled parts of China for more than 2,000 years. In 108 B.C., about 2,100 years ago, this kingdom was overthrown by Chinese armies. Three new kingdoms emerged: Koguryo, Paekche, and Silla. Almost 800 years later, in the 660s, the Silla won control of the whole country. They were helped by Chinese troops.

By the year 901 Korea had once again broken into three kingdoms. In 936, a powerful leader named Wang Geon unified them. This kingdom lasted until 1392. Then the Yi family then seized the throne. They began the Choson dynasty, which ruled Korea until 1910.

Korea has seen a lot of warfare in the last 130 years. In 1894, Japan and China sent soldiers to stop an uprising in Korea. Soon afterward, Japan fought Russia for control of the region. Japan won that war in 1910.

About 30 years later, in 1939, World War II began. This was a devastating global war. Japan fought with Germany against the Allied powers. The Allies included the United States, the United

## South Korea



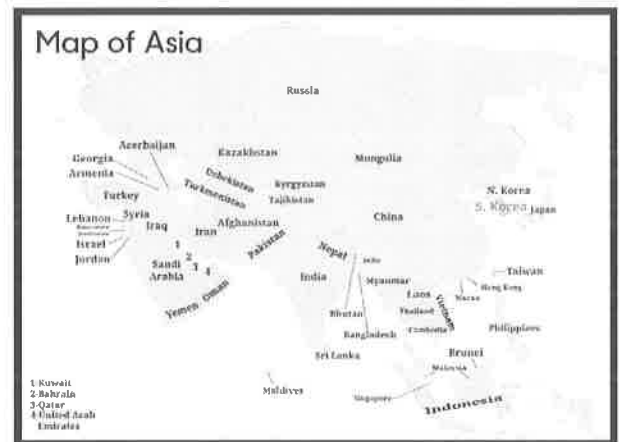


Kingdom, and the Soviet Union. They defeated Japan and Germany in 1945.

As a result, Japan had to surrender Korea and its other lands to the Allies. U.S. soldiers stayed in the southern part of the Korean Peninsula. Soviet troops occupied the north.

In 1950, Korean communists from the north invaded the south. This attack triggered the Korean War. The communists were supported by China and the Soviets. They planned to unify the country under communist rule. Communism is a political system that controls all business and limits personal freedom.

The United States and other countries defended South Korea. The war lasted until 1953. More than 2.5 million people died. The war never officially ended, and Korea remains divided to this day.



## Quiz

1 Read the section "History."

Select the paragraph from the section that explains what caused a war between the two parts of Korea.

- (A) Korea's first kingdom is known as Gojoseon, or Old Chosun. It ruled parts of China for more than 2,000 years. In 108 B.C., about 2,100 years ago, this kingdom was overthrown by Chinese armies. Three new kingdoms emerged: Koguryo, Paekche and Silla. Almost 800 years later, in the 660s, the Silla won control of the whole country. They were helped by Chinese troops.
- (B) By the year 901 Korea had once again broken into three kingdoms. In 936, a powerful leader named Wang Geon unified them. This kingdom lasted until 1392. Then the Yi family seized the throne. They began the Choson dynasty, which ruled Korea until 1910.
- (C) About 30 years later, in 1939, World War II began. This was a devastating global war. Japan fought with Germany against the Allied powers. The Allies included the United States, the United Kingdom and the Soviet Union. They defeated Japan and Germany in 1945.
- (D) In 1950, Korean communists from the north invaded the south. This attack triggered the Korean War. The communists were supported by China and the Soviets. They planned to unify the country under communist rule. Communism is a political system that controls all business and limits personal freedom.

2 Which sentence from the introduction [paragraphs 1-3] helps the reader understand WHY Korea's mountains are smaller than other countries?

- (A) It occupies a 750-mile-long peninsula.
- (B) Today, Korea is split into South and North Korea.
- (C) Over millions of years, these peaks have been worn down by rain and wind.
- (D) Most of them were formed by volcanic activity.

3 Read the section "People And Culture."

What does Image 2 show?

- (A) the age a child speaks in South Korea
- (B) how age works in South Korea
- (C) what the capital of South Korea is
- (D) a 13-year-old South Korean child

4 Read the section "Nature."

What does Map 1 in that section show about South Korea?

- (A) The flag's colors are red, white, blue and black.
- (B) The Siberian tiger is found in the Demilitarized Zone.
- (C) It is surrounded by seven different countries.
- (D) It has several national parks throughout the country.

# Camel spiders are speedy, angry — and an ant's worst nightmare

By How Stuff Works, adapted by Newsela staff on 05.27.19

Word Count **661**

Level **730L**

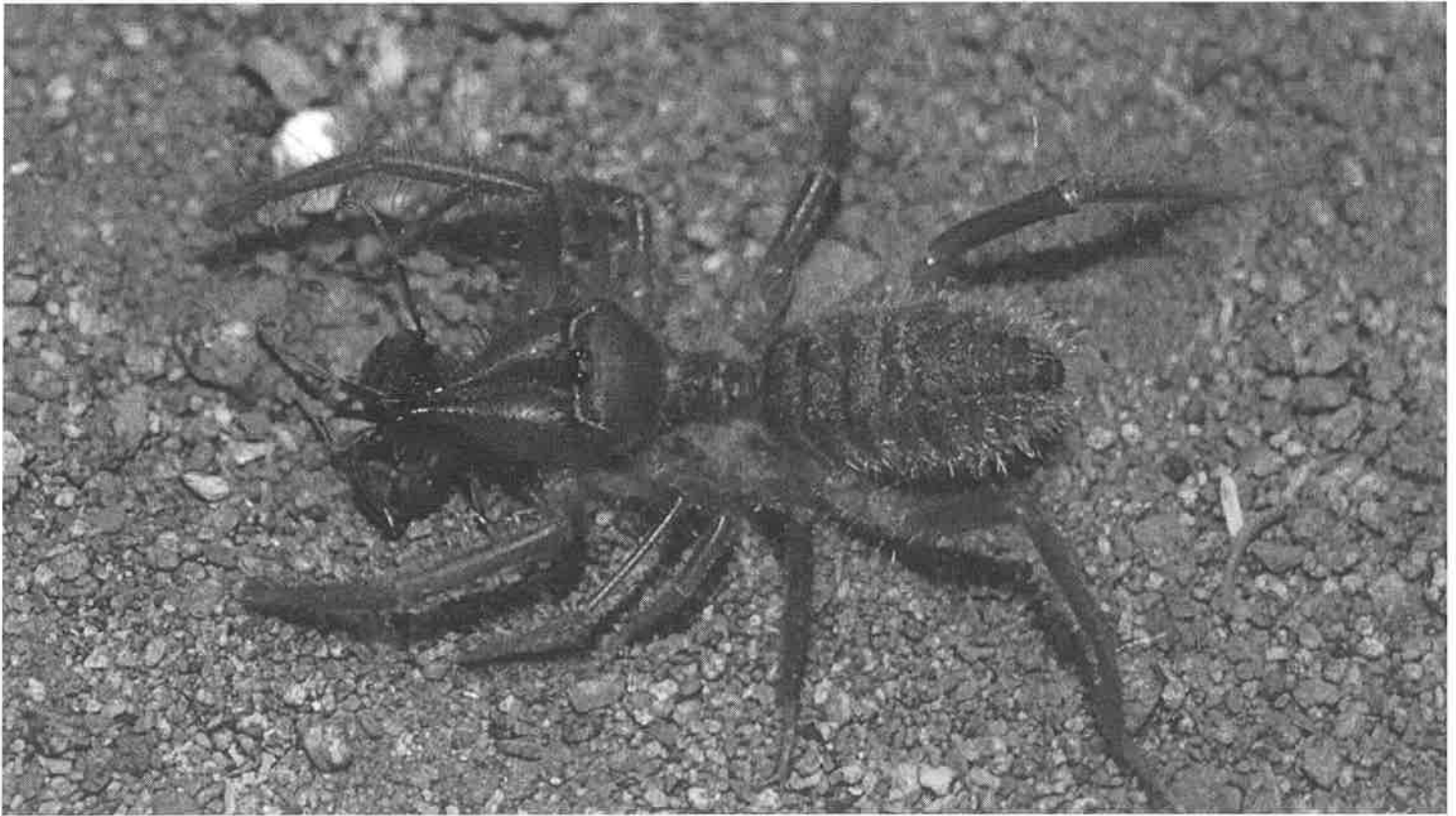


Image 1. Camel spiders have a fierce reputation but, in truth, they aren't spiders at all, but solifugids. Photo by: Kristie Reddick/The Bug Chicks

The camel spider is feared by many humans. However, the legends around it aren't entirely fair.

American soldiers who saw it called it a giant. Some said the camel spider would hide in sleeping bags. They'd wait, ready to inject you with venom, or poison.

In South Africa, camel spiders are called haarskeeders, or "beard trimmers." Some there believe if you sleep on the ground, camel spiders will come trim your hair in your sleep. Another legend says they nip at the bellies of camels until their stomachs fall out. Then the camel spiders eat the stomach parts or lay eggs in them.

## Different Enough To Belong To Their Own Order

None of this is true. First, camel spiders are not spiders at all, but solifugids. They are a type of arachnid, or insect group. They live on every continent except Antarctica and Australia. All 1,150

species have eight legs and two body sections. They are a lot like spiders, scorpions and ticks. However, solifugids are different enough to belong to their own order.

Second, they can be angry, but they not venomous. The large jaws of most species can't even break through human skin, and certainly not a camel's. The largest camel spider has a leg span of around 6 to 8 inches. This is big for a spider. Still, it's not like something from a horror movie. Third, they don't seem interested in human hair.

Kristie Reddick thinks camel spiders are fascinating. She's the founder of The Bug Chicks. This company uses arthropods, or animals without backbones, to teach young people life lessons.

### **Famed Hissing Sound**

She first saw a camel spider in the African country Kenya, she said. Reddick saw it rub its jaws together and make its famed hissing sound. "It had such an attitude," she says, "I just fell in love."

It would seem difficult to fall in love with an arachnid that acts like a pro wrestler. Its body, too, looks gathered from a scrap yard. Still, the camel spider is lovable, Reddick says.

Most solifugids only creep at night. They are protective of their area. These animals are also predators in dry areas. They eat other predators their same size, or larger. They even eat each other.

Unlike spiders, solifugids don't have venom. It's unnecessary because their jaws are so powerful. They can push their food through their mouths by sawing their prey back and forth. Imagine an old-timey cartoon character eating a cob of corn. That's how solifugids eat.



### **Can Reach Speeds Of Up To 10 Miles Per Hour**

Solifugids are also insanely fast. They can reach speeds of up to 10 miles per hour. But such speed means they need constant fueling. So, they eat quite a bit. Still, that doesn't necessarily explain one solifugid behavior: mass ant killings.

For some reason, camel spiders will sometimes go after ant nests. They just tear ants in half until they're surrounded by a heap of dead ones. Some scientists think maybe they're killing the ants to save them as a snack. However, Reddick published a paper in 2014 about the diet of solifugids. She and her co-author found that solifugids don't really like eating ants. Another explanation for this behavior could be that they're trying to clear out the ant nest. Maybe they want a nice place to escape the desert sun. Still, it's really a mystery as to why they do this.

Despite this odd behavior, remember, camel spiders can't hurt you.

"Just because something is a predator" doesn't make it bad or mean, says Reddick. "Solifugids have so much great attitude, and they're soft and fuzzy," she says, "When you pet one, it's like petting a little mouse. A little demon mouse."

## Quiz

- 1 How does the information in the introduction [paragraphs 1-3] support the main idea of the article?
- (A) It describes the places that camel spiders are most commonly found.
  - (B) It describes the stories that have made people fear camel spiders.
  - (C) It describes the differences between camel spiders and other arachnids.
  - (D) It describes the way that camel spiders usually look and behave.

- 2 Read the selection below.

*These animals are also predators in dry areas. They eat other predators their same size, or larger. They even eat each other.*

How does the selection above support the main idea of the article?

- (A) It describes a legend about the camel spider.
  - (B) It describes the size of the camel spider.
  - (C) It shows what animals hunt the camel spider.
  - (D) It shows what the camel spider's food source is.
- 3 Which statement would Kristie Reddick be MOST likely to agree with?
- (A) Camel spiders are the largest arachnids in the world.
  - (B) Camel spiders are interesting and lovable.
  - (C) Camel spiders are scary because of their venom.
  - (D) Camel spiders are good at hiding in sleeping bags.
- 4 Which option accurately compares how the author and Reddick view camel spiders?
- (A) They both think camel spiders like to trim people's hairs while they sleep.
  - (B) They both think camel spiders belong in horror movies.
  - (C) They both think camel spiders are not dangerous to humans.
  - (D) They both think camel spiders kill ants to have a place to escape the sun.

# Lives of South Korean kids are like yours in some ways, different in others

By Washington Post, adapted by Newsela staff on 02.01.18

Word Count **652**

Level **630L**

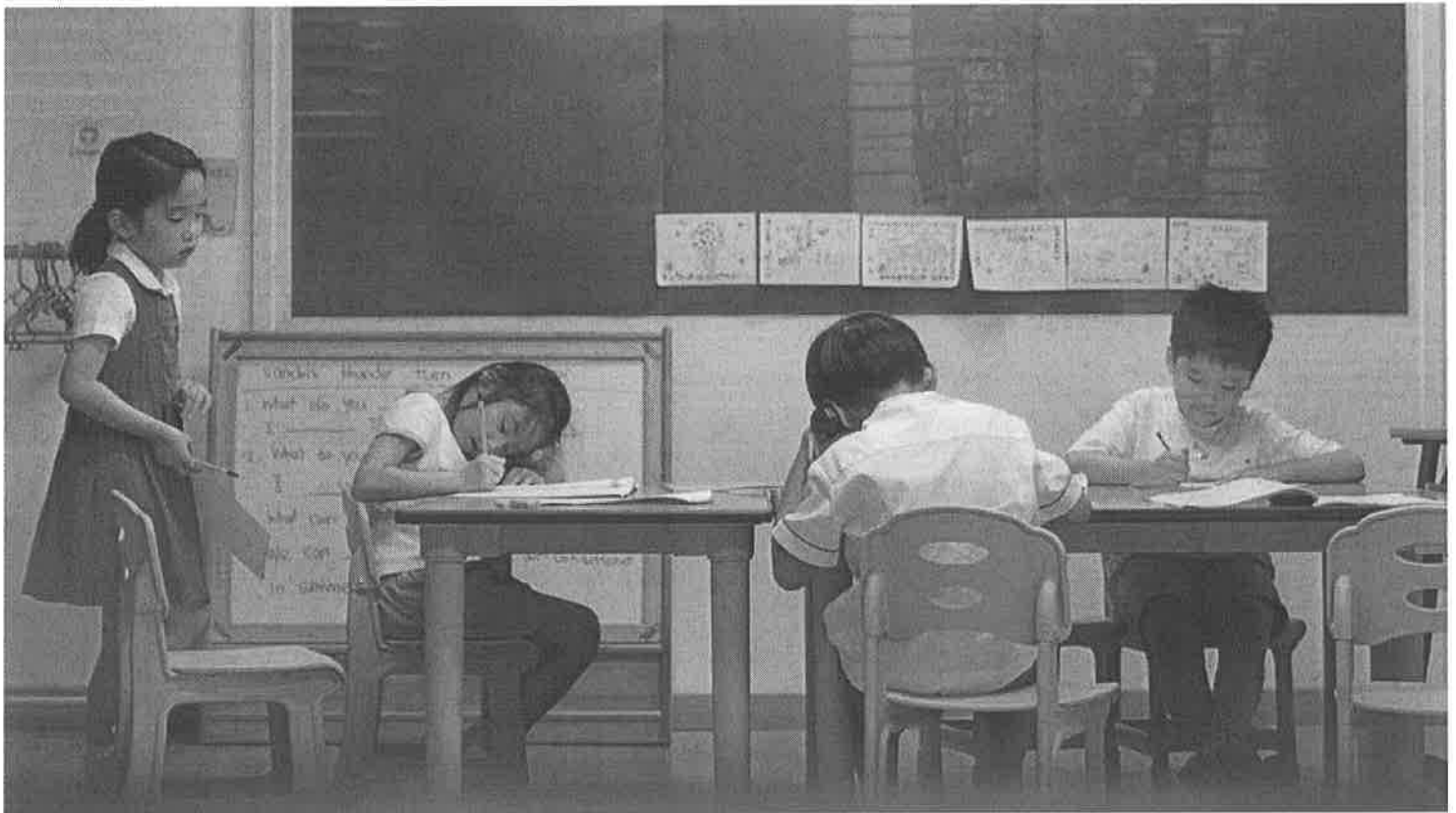


Image 1: Children study at the Jongno Hagwon Academy in Mok-dong area, August 10, 2016, in Seoul, South Korea. After school, many children will go study at a hagwon like this one. Photo: YELIM LEE/AFP/Getty Images.

The Winter Olympics will be held in Pyeongchang, South Korea this year. Have you ever wondered what life is like for the average South Korean kid? The answer: very busy.

A normal school day can be tough for students in the U.S. But the South Korean school system is very competitive. It can make American schools seem like a breeze.

## School, Tutors And Special Classes

"I had a lot of pressure from school," Jackie Yoo said. She is 25 years old and was born in America. Jackie moved with her family to South Korea at age 4 and studied there through high school.

Even in first grade, Yoo had a tight schedule. After school, she would go to see her math tutor. Next, she'd head to piano lessons. After that, she had ballet class.

The work doesn't end when school lets out. Many parents pay for a tutoring service called a hagwon. It is pronounced HAG-won. Children go to school during the day. After class, they go to a hagwon for extra studying.

Jason Bartlett studied in South Korea during college. Later he worked there as a tutor. In the U.S., students usually go to tutoring for a few hours if they need extra help. Hagwons are very different.

"In Korea, parents will sign their kids up for years to go to these hagwons for English, for math — even if they're very good," he said. Parents have their kids go to hagwons because they "want their child to be the best" and not fall behind.

### **Preparing For College Starts Early**

One reason why Korean kids go to hagwons is to prepare for the Suneung. It is pronounced SOON-ung. Similar to the SAT, it is a test taken to get into college. To get into a good college, you need to do well on it. Even some preschoolers study for the test at their hagwons.



Korean kids also learn English from a young age. But at least those lessons can be fun, Yoo said. Instead of traditional Korean movies, she and her classmates would watch American movies in English. It was another way for them to practice English.

Yoo said her young cousins in South Korea saw "Frozen" at school. Now they're hooked on it.

### **Talking About Pop Music On KaTalk**

Of course, life in South Korea isn't all about school. Like American children, South Koreans enjoy using smartphones. About 72 percent own one by age 12, according to one 2016 report. Most Korean children use a free messaging service to communicate. It's called KakaoTalk, pronounced as KAH-cow talk. They call it KaTalk for short.

One topic kids are always chatting about is Korean pop, also known as K-pop. Korean boy bands and girl groups are hugely popular. The most famous group is BTS, a seven-member boy band. They have more than 8 million Instagram followers.

K-pop fans are interested in much more than the music. They are obsessed with getting the latest gossip, Yoo said. They try to always be up-to-date on singers' clothing, hairstyles and music.



### **South Korea By The Numbers**

Size: 38,500 square miles. That's just smaller than the state of Virginia.

Population: 51.2 million. That's almost two Texas!

Biggest city: Seoul, the capital city. It has 9.8 million people — which beats New York City by more than a million.

Money: Won.

Fun fact: At birth, South Korean children are considered 1 year old. And everyone turns a year older on January 1. So if you were a South Korean born in mid-December, you would be considered 2 years old. An American child would be only 2 weeks old.



## Quiz

- 1 Which detail MOST CLEARLY shows that hagwons are very important in South Korea?
- (A) Many parents pay for a tutoring service called a hagwon. It is pronounced HAG-won.
  - (B) "In Korea, parents will sign their kids up for years to go to these hagwons for English, for math — even if they're very good," he said
  - (C) Parents have their kids go to hagwons because they "want their child to be the best" and not fall behind.
  - (D) Instead of traditional Korean movies, she and her classmates would watch American movies in English.

- 2 Read the paragraph from the section "Talking About Pop Music On KaTalk."

*Of course, life in South Korea isn't all about school. Like American children, South Koreans enjoy using smartphones. About 72 percent own one by age 12, according to one 2016 report. Most Korean children use a free messaging service to communicate. It's called KakaoTalk, pronounced as KAH-cow talk. They call it KaTalk for short.*

Which question is answered in this paragraph?

- (A) What is something South Korean kids like to do for fun?
  - (B) What do South Korean kids like to study at school?
  - (C) What percentage of American kids have smartphones?
  - (D) What do South Korean kids talk about on KakaoTalk?
- 3 Select the sentence that BEST summarizes the article.
- (A) South Korean kids begin getting ready for the Suneung test in preschool.
  - (B) South Korean kids live in a small country with a population the size of two Texas.
  - (C) South Korean kids are interested in learning about the style of their favorite bands.
  - (D) South Korean kids are busy with school and love chatting about Korean pop music.
- 4 How does the information in the section "South Korea By The Numbers" support the MAIN idea of the article?
- (A) It describes what life is like for kids living in South Korea.
  - (B) It shows why studying hard is important in South Korea.
  - (C) It explains why the Olympics are in South Korea this year.
  - (D) It lists important facts about the country of South Korea.

# When lava flows, a Hawaiian goddess' name comes up

By Associated Press, adapted by Newsela staff on 05.22.18

Word Count 771

Level 690L

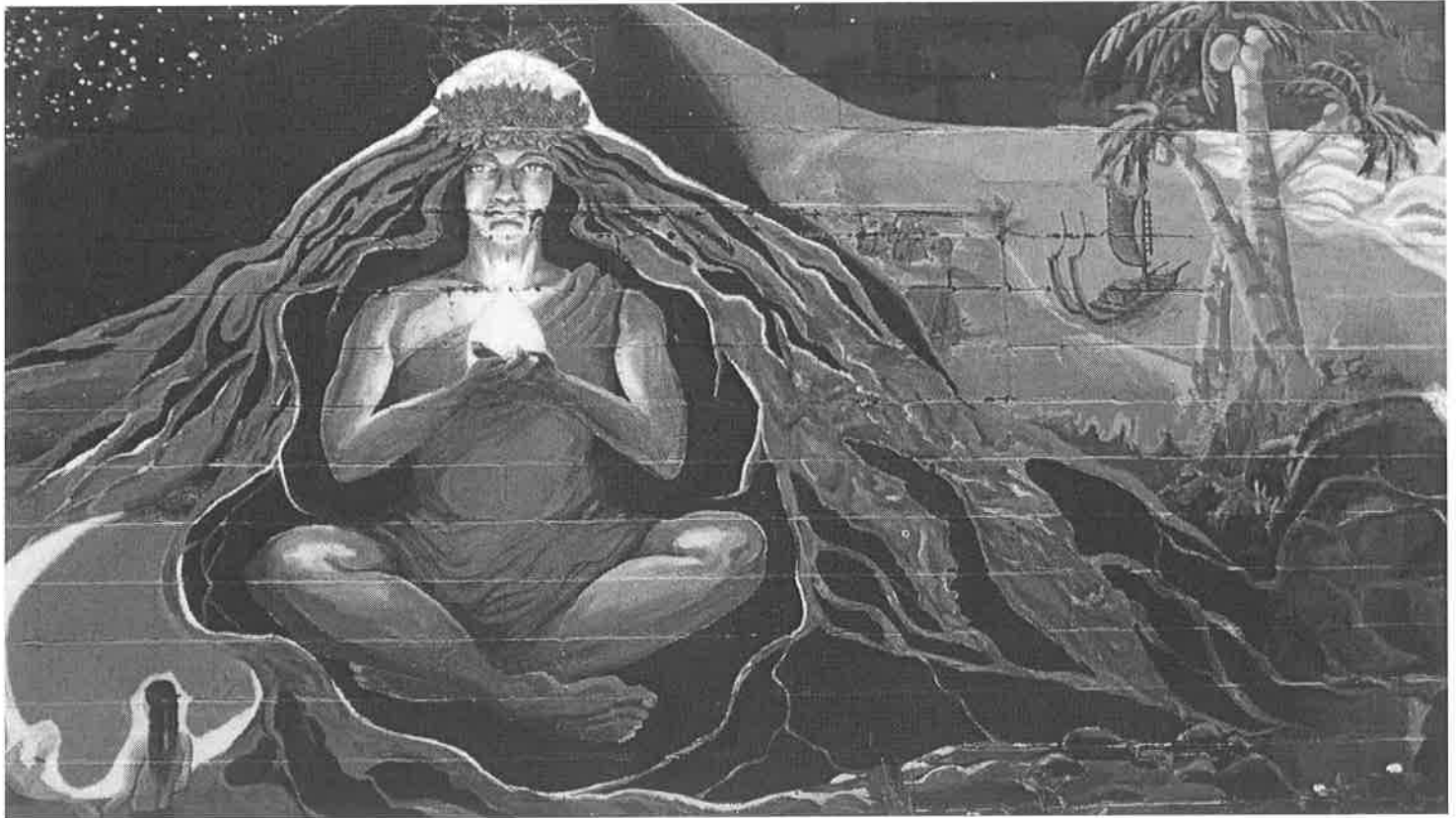


Image 1. Street art depicts Pele, the Hawaiian goddess of fire, in the aftermath of eruptions from the Kilauea volcano on Hawaii's Big Island, on May 12, 2018, in Pahoa, Hawaii. Photo by Mario Tama/Getty Images.

Kilauea is a volcano on Hawaii's Big Island. This volcano is very active. It has been erupting since 1983.

Earlier this month, the eruptions grew more powerful. Kilauea has been erupting lava into neighborhoods on the slope of the volcano since May 3. The lava flow has forced people to leave their neighborhoods. In some places it has burned down homes.

A name often comes up when people talk about the volcano: Pele. It sounds like "peh-leh."

Julie Woolsey is a resident of a town near the volcano. On May 3, a crack in the earth opened on her street. It oozed lava close to her home. Woolsey had to leave the area.

"You can't really predict what Pele is going to do," she said.

**Who Is Pele?**

Pele is known as the goddess of volcanoes and fire. She is an important figure in Hawaiian culture.

She represents all of the elements related to volcanoes. This includes magma, steam and ash. Magma is a hot mix of melted and partly melted rock. When magma makes it to the surface of a volcano and starts flowing down, we call it lava.

Pele is an akua, which some people translate as "goddess." But Kuulei Kanahale prefers to think of Pele as an "element." Kanahale is a scientist. She works to preserve native Hawaiian culture. Kanahale says Pele does not exist to punish anyone. It is more like she is a part of nature.



According to local legend, Pele lives in a crater on the island of Hawaii.

### **Creation Of Land**

In Hawaiian culture, Pele means "the creation of land," said Piilani Kaawaloa. She teaches traditional Hawaiian literature and hula at Hawaiian schools.

Pele has two forms, Kaawaloa explained. One stays at the crater tending to her fire pit. Another goes "holoholo," or exploring. This form wanders around the towns near the volcano — in the form of lava.

That's exactly what is happening now. Cracks are opening up in the towns on the sides of the volcano and lava is flowing out. Scientists worry that Kilauea's peak could soon have an even bigger eruption. It would throw huge rocks and ash miles into the sky.

### **Legends Of Pele**

A legend tells the story of an old woman who asked for food from two girls. The other girl refused. The girl told the old woman they didn't have any food for strangers. But the younger girl was kind. She shared the food.

The woman old told the younger girl that strange things would happen on the mountainside. She told her to hang bits of cloth made from bark to stay safe.

When the younger girl told her grandmother about the old woman's advice, the grandmother knew it was Pele. The family did what she said. They hung bits of clothing from bark near their home.



The legend says that Pele then sent her lava to destroy people who had made her angry. The lava did not touch the younger girl's home. Pele protected her.

Kanahele said that the people who wrote myths like these first observed nature. Then they "put feelings and emotions and romance into it." This made the stories more interesting, Kanahele said. It helped the stories to stand the test of time.

But there is science behind the story, Kanahele added. After all, the tales were created to record and explain scientific observations.

One example, she said, is the story of Pele's fight with the goddess of snow. That was really about a strange eruption at Mauna Kea, where there was snowfall and lava. The story was a way to explain it.

#### **Four Laws Of Pele**

Pele has four laws, Kanahele said.

First, lava will always flow in order to create new land. It will always move to new spots.

Second, when a volcanic eruption is coming, people should leave the area. This is a sign the land belongs to Pele. Earthquakes and the smell of sulfur are two big clues that an eruption is coming.

Third, when the lava stops flowing, Pele is done. People can then return to that land.

Fourth, the land will be okay for human use again when its trees grow back.

## Quiz

1 Read the paragraph below from the section "Who Is Pele?"

*Pele is an akua, which some people translate as "goddess." But Kuulei Kanahale prefers to think of Pele as an "element." Kanahale is a scientist. She works to preserve native Hawaiian culture. Kanahale says Pele does not exist to punish anyone. It is more like she is a part of nature.*

What conclusion can the reader make based on this paragraph?

- (A) Scientists still study Pele's role in nature.
- (B) Pele is considered to be one of several natural elements.
- (C) Many people believe Pele causes all natural disasters.
- (D) It is a scientific belief that Pele is a natural force.

2 Which sentence from the introduction [paragraphs 1-5] explains why Woolsey had to leave her home?

- (A) Kilauea is a volcano on Hawaii's Big Island.
- (B) Julie Woolsey is a resident of a town near the volcano.
- (C) On May 3, a crack in the earth opened on her street.
- (D) "You can't really predict what Pele is going to do," she said.

3 What does the section "Legends Of Pele" show the reader?

- (A) what Kanahale believes is the most important legend of Pele
- (B) when Pele's stories first became popular in Hawaiian culture
- (C) how Pele's stories can explain things in nature
- (D) who the first scientist to study Pele's stories was

4 Read the section "Four Laws Of Pele."

Which answer choice BEST describes the structure of the section?

- (A) listing
- (B) description
- (C) chronological order
- (D) compare and contrast

# North Korea vows to end nuclear weapons program in historic summit with South Korea

By Associated Press, adapted by Newsela staff on 04.30.18

Word Count **845**

Level **840L**



North Korean leader Kim Jong Un (left) and South Korean President Moon Jae-in cross the military demarcation line to the South side at the border village of Panmunjom in the Demilitarized Zone on April 27, 2018. Kim made history that day by crossing over the world's most heavily armed border to greet Moon for talks on North Korea's nuclear weapons. Photo by: Korea Summit Press Pool via AP

**GOYANG, South Korea** — The leaders of North and South Korea met Friday, April 27, at the border of their countries.

North Korean leader Kim Jong Un and South Korean President Moon Jae-in set aside a year that saw them almost on the edge of war. They grasped hands and walked together across the cracked concrete marking the Koreas' border.

They said they would work toward having no nuclear weapons in either country. The leaders also plan to work toward an official end to the Korean War this year. However, their meeting ended with few details on how to reach those goals.

A nuclear standoff has terrified millions of people. North Korea has done nuclear and missile tests. The two leaders admitted to having a difficult past. There are doubts that, after earlier failed talks, things will be different this time.

## **A Pledge To Rid Countries Of Nuclear Weapons**

The leaders repeated a previous pledge to rid the countries of nuclear weapons. It delayed one of the world's most pressing issues until a meeting between Kim and U.S. President Donald Trump in coming weeks.

The meeting brought together the two men from nations with a history of fighting. They smiled after Kim walked over the border to greet Moon. Kim became the first leader of his nation to step on southern soil since the Korean War. Both leaders then stepped together into the North and back to the South.

## **Swing In Relations Between North And South Korea**

It marks a swing in relations for the countries. They have gone from nuclear threats and missile tests to signs of peace.

Standing next to Moon after the talks ended, Kim faced cameras sending his image live to the world. He said that the Koreas are "linked by blood as a family." The leaders also pledged to be free of nuclear weapons. It is something they have said before.

The latest talks between the Koreas, Kim said, should not repeat the "unfortunate history" of past agreements that only reached the starting line. Then they fell apart.

## **Still In Official State Of War**

The meeting should be seen in view of the last year. The United States, its partner South Korea and North Korea made threats as the North held weapons tests. It should also be seen in light of the long history of the two Koreas, which fought a bloody war. They are still in an official state of war.

Both countries agreed to push for talks this year with the United States and possibly China to officially end the Korean War. The conflict went on from 1950 to 1953. It stopped with an agreement that never ended the war.

Many will judge the meeting based on the weak nuclear talk. North Korea's nuclear and missile tests last year likely put it close to becoming a true nuclear power. The North claims it is already at that level. It has spent decades building bombs, although countries around the world have opposed it.

## **South Korean Leaders Criticize Meeting**

South Korean leaders criticized the meeting. They said it fails to get a clear pledge to give up nuclear weapons.

However, the Koreas made progress on other points of trouble. Moon agreed to visit Pyongyang, North Korea's capital, sometime in autumn. Both leaders said they would meet regularly and call via a new hotline.

## **Naming A Peace Area and Allowing Reunions**

They settled a problem over their western sea border. It will be named a peace area. Fishing activities are to be secured for both countries. They also said they would allow reunions of relatives separated by the Korean War.

Kim said he knows there are doubts on whether the meeting will bring results. If they go forward "hand in hand, it will be impossible at least for things to get worse," he said. He would visit the president's Blue House if invited, he said.

### **Border Crossing May Have Been Unplanned**

The historic greeting of the two leaders may be most remembered from the meeting. It was planned in detail. However, crossing the border more than once may have been unplanned.

Before the crossings, Moon stood near the Koreas' border. He moved forward when he saw Kim appear in front of a building on the northern side. They smiled and shook hands, with the border between them. Moon then invited Kim to cross into the South. After Kim did so, Moon said, "You have crossed into the South, but when do I get to go across?" Kim said, "Why don't we go across now?" and then led Moon into the North and then back into the South.

Moon led Kim along a red carpet into South Korea. They took a photo inside the Peace House, where the meeting took place.

Expectations were low on the nuclear issue. Past talk of limiting North Korea's weapons has ended in charges of cheating.

However, some say the only way to get a deal is to do what the Koreas tried. They should sit down and see what's possible.



## Quiz

- 1 Read the paragraph from the section "South Korean Leaders Criticize Meeting."

*South Korean leaders criticized the meeting. They said it fails to get a clear pledge to give up nuclear weapons.*

Which of the following is the MOST accurate explanation of this paragraph?

- (A) South Korean leaders were upset that North Korea pledged to give up its nuclear weapons.
- (B) South Korean leaders do not want North Korea to give up its nuclear weapons.
- (C) South Korean leaders were happy that North Korea pledged to create more nuclear weapons.
- (D) South Korean leaders do not want North Korea to have control of nuclear weapons.

- 2 Which detail BEST supports the idea that the meeting between Kim and Moon was historic?

- (A) Kim became the first leader of his nation to step on southern soil since the Korean War. Both leaders then stepped together into the North and back to the South.
- (B) Standing next to Moon after the talks ended, Kim faced cameras sending his image live to the world. He said that the Koreas are "linked by blood as a family."
- (C) The latest talks between the Koreas, Kim said, should not repeat the "unfortunate history" of past agreements that only reached the starting line. Then they fell apart.
- (D) Many will judge the meeting based on the weak nuclear talk. North Korea's nuclear and missile tests last year likely put it close to becoming a true nuclear power.

- 3 Complete the sentence.

Because of talks between North and South Korea in the past, \_\_\_\_\_.

- (A) many people expect that the recent meeting will build on those successes
- (B) many people are not convinced that the recent meeting will change things
- (C) many people expect that North Korea will want peace but South Korea will not
- (D) many people are not worried about North Korea having nuclear weapons

- 4 Read the selection below.

*They settled a problem over their western sea border. It will be named a peace area. Fishing activities are to be secured for both countries. They also said they would allow reunions of relatives separated by the Korean War.*

WHY did the author include this selection?

- (A) to illustrate that North and South Korea focused on the nuclear issue in their meeting
- (B) to demonstrate that North and South Korea had a hard time talking with one another
- (C) to show that North and South Korea got almost nothing accomplished in the meeting
- (D) to describe some of the things both North and South Korea agreed to during the meeting

# Giant pumpkins take over front yards

By Milwaukee Journal Sentinel, adapted by Newsela staff on 10.26.14

Word Count **612**

Level **780L**



Glen Martin, the president of Wisconsin Giant Pumpkin Growers, and his wife, Margaret, of Combined Locks, Wisconsin, walk down the line of giant pumpkins and squash in their front yard, Oct. 5, 2014. The largest of the pumpkins weighs 1,719 pounds and the largest of the giant squash weighs 1,103 pounds. Michael Sears/Milwaukee Journal Sentinel/MCT

**COMBINED LOCKS, Wis.** — Glen Martin’s pumpkins are gigantic. They are so large that they seem like pumpkins from another planet.

It's nearly Halloween so his pumpkins are on display in his front yard. Strangers drive by just to stare at them. They are amazed.

Martin’s pumpkins weigh more than 1,700 pounds each.

Martin is president of Wisconsin Giant Pumpkin Growers. His group shares tips on growing the huge fruit. They also enter their giant pumpkins into contests every fall.

Growing healthy pumpkins comes naturally in Wisconsin, Martin said. The state has a long history of raising milk cows.

“It’s in our blood here. That comes from our dairy farming background in Wisconsin,” he said. “It’s like taking care of a calf — you have to take care of it every day.”

## **It's All About The Pumpkin**

Wisconsin Giant Pumpkin Growers started 20 years ago. It had just 14 members.

Martin said it started with “A bunch of guys standing around saying, ‘I can grow a bigger pumpkin.’”

Now the group has 120 members. Everyone who joins gets a how-to booklet, a packet of seeds and a list of growers. The group organizes a free pumpkin-patch tour every July so people can see the giant pumpkins covering the ground.

“It’s not a simple thing” to grow a giant pumpkin, says University of Wisconsin-Madison professor Irwin Goldman. He studies horticulture, or plant science, and he has tried growing them himself. Goldman's pumpkins grow to about 400 pounds.

Growing a giant pumpkin begins with a seed. If you want an enormous pumpkin, it’s a good idea to get seeds from another giant pumpkin. Many growers trade or give away seeds.

### **Get An Early Start**

The growing season begins in April. The seeds are first planted in small pots. They grow indoors for two weeks before they are put into the ground.

Gardeners must plan ahead. The pumpkin vines need room to spread, and of course, the giant pumpkins themselves need space. Most pumpkin growers leave a space of about 25 feet by 35 feet for each one.

Once the pumpkin plant begins to grow, it grows fast. A pumpkin vine can grow 6 inches in one day. In one hour, a giant pumpkin can grow 2 pounds.

Pumpkin growers must pay close attention to their plants. Each flower on a vine may produce a pumpkin, so the growers remove all the flowers but one. This is to make sure all the plant’s energy goes toward one giant pumpkin.

### **Grow Them Big, Move Them Out**

Chris Stevens of New Richmond, Wisconsin, is an expert pumpkin grower. He broke the world record in 2010 with a 1,810-pound pumpkin.

Still, Stevens’ record was quickly broken. This year, a man from Switzerland set a new record with a 2,096-pound pumpkin.

Scientists from the University of Wisconsin wanted to find out why pumpkins kept getting bigger.

One reason is selection, they said. Choosing seeds from the biggest pumpkins led to even bigger pumpkins.

The environment is also important, they found. Wisconsin has many lakes and is very wet. It is a perfect place to grow pumpkins.

Moving the pumpkins to contests is not easy. Growers must use a tractor and a special harness to get the pumpkin onto a truck. At the competition, a pumpkin cannot be broken, have holes, or be rotted.

Bringing the biggest pumpkin can mean prize money and bragging rights. But the growers say that's not why they do it.

They love to see the looks on people's faces when they see a giant pumpkin for the first time. Eyes open wide. Mouths drop.

"People think it's just absolutely amazing," Stevens said.

## Quiz

1 The group Wisconsin Giant Pumpkin Growers is associated with all of the following EXCEPT:

- (A) sharing tips to grow giant pumpkins
- (B) enter giant pumpkins in contests every year
- (C) organizing free pumpkin-patch tours every year
- (D) making money by selling the seeds of the largest pumpkin

2 Select the paragraph from the section "Grow Them Big, Move Them Out" that describes the conditions that must be fulfilled for a pumpkin to enter the contest.

3 Read the sentence from the article.

*The pumpkin vines need room to spread, and of course, the giant pumpkins themselves need space.*

Select the option that provides the correct meaning of the phrase "room to spread."

- (A) a place with four walls in a house or a building to grow pumpkin vines in
- (B) a place with four walls to allow the pumpkins to increase in numbers
- (C) some space to allow the pumpkin vines to expand or stretch out in
- (D) some space to store the big and fat pumpkins that grow on the vines

4 Read the sentence from the article.

*Pumpkin growers must pay close attention to their plants.*

Select the option which is opposite in meaning to the phrase "pay close attention" as used in the sentence.

- (A) to look at something carefully
- (B) to think that something is boring
- (C) to completely ignore something
- (D) to watch over or protect something

# Despite drought and bugs, "we're farmers and we'll continue to farm."

By Los Angeles Times, adapted by Newsela staff on 07.03.15

Word Count **610**

Level **740L**



Renee Jaime, 12, (right) and her aunt, Sandra Jaime, of Mexico, shield themselves from the sun as they visit the Great Salt Lake, July 2, 2015, near Salt Lake City, Utah. Salt Lake City saw the hottest June on record following the warmest winter ever. AP Photo/Rick Bowmer

**SYRACUSE, Utah** — For many years, farmer Neal Briggs has looked east to the mighty Wasatch mountain range.

Each spring, he saw snowy peaks in the Rocky mountains nearby. From these he knew how much water would fill nearby streams. They would then flow into his wheat fields. Briggs farms 300 acres near Salt Lake City.

Now, Briggs looks to the mountains and sees mostly bare rock. Utah is in a bad drought. The state is low on water. Down in his fields he sees another problem: insects.

This year, Utah had its warmest and least-snowy winter since the late 1800s. The snowpack lower down on the mountains has melted. Most of the snow at higher altitudes will soon follow.

**Warm Winter Brings Bad Bug Problem**

"This is one of those years farmers will tell their grandkids about," said Utah water expert Randall Julander. "About just how dry it was and how bad it was."

Drought now grips almost half of the West, with no end in sight. Globally, 9 of the 10 warmest years recorded since 1880 have happened since 2000. Streams and lakes are running very low all over.

Briggs sees another challenge from Utah's warm winter: killer insects called aphids.

These insects usually freeze in the winter. They survived this year and began attacking farmland in the spring. Briggs didn't even know the speck-like insects were attacking his fields. Then he spotted tens of thousands of predator ladybugs coming to eat the aphids.

"I thought, 'Maybe we'll get by,'" he recalled. "You know, let nature do what nature does."

A week later, he stood in his fields and nearly cried: Even the vast numbers of ladybugs couldn't kill off the aphids. In fact, they were spreading. They ate his crops, injecting a toxin that finally kills the plants.

### **Farmers Need A Good Summer**

Briggs is a father of six who farms with two of his sons. He has watched streams get lower each spring. Even so, he stays hopeful.

"Even if we have a bad year, we figure the next year will be a good one," he says. "Even if we have five bad years in a row, we're still looking for that next good year."

Driving through his town in Utah, he has seen homeowners, businesses and golf courses watering their lawns even when it rains. So there's enough blame to go around. So far, no one is suggesting that farmers are wasting Utah's water: "I hope it never comes to that."

Meanwhile, Utah keeps its eyes toward the sky.

Randy Parker is the head of a Utah farmers group. He thinks this year will be worse than last year if they're not "blessed by Mother Nature." The right balance of rain and summer temperatures is needed in Utah.

### **Texting About A Rainstorm**

In May, a rainstorm raged for two days straight. It dumped 2 inches of rain on the land. They normally get 17 inches in an entire year. Briggs remembers running outside to check his backyard water measure and texting his son, Aaron, with each big rise.

"Yeah!" his son texted back. "Woo-hoo!"

Farming has always been a tough life. If it's not the drought one year, it's dropping prices for the crops they sell the next year. Briggs says he still prefers the lifestyle of the farm. He says his children have been his most rewarding crop.

Inside their kitchen, Briggs, his wife, Caroline, and Aaron talk about the future. They don't think there will be much water coming from the Wasatch range ever again. That's OK though.

"We're farmers and we'll continue to farm," Caroline said. "It's our life."

## Quiz

- 1 Which sentence from the article BEST explains why Utah is in the middle of a historic drought?
- (A) This year, Utah had its warmest and least-snowy winter since the late 1800s.
  - (B) Drought now grips almost half of the West, with no end in sight.
  - (C) Briggs sees another challenge from Utah's warm winter: killer insects called aphids.
  - (D) "Even if we have a bad year, we figure the next year will be a good one," he says.
- 2 Select the paragraph from the section "Warm Winter Brings Bad Bug Problem" that suggests why aphids have infested crops in Utah.
- 3 Which statement from the section "Texting About A Rainstorm" is MOST helpful in explaining the main idea of the article?
- (A) In May, a rainstorm raged for two days straight
  - (B) Briggs remembers running outside to check his backyard water measure and texting his son, Aaron, with each big rise.
  - (C) Briggs says he still prefers the lifestyle of the farm.
  - (D) They don't think there will be much water coming from the Wasatch range ever again.
- 4 Information from which of these sections is LEAST important in understanding the main idea of the article?
- (A) Introduction [paragraphs 1-4]
  - (B) "Farmers Need A Good Summer"
  - (C) "Warm Winter Brings Bad Bug Problem"
  - (D) "Texting About A Rainstorm"

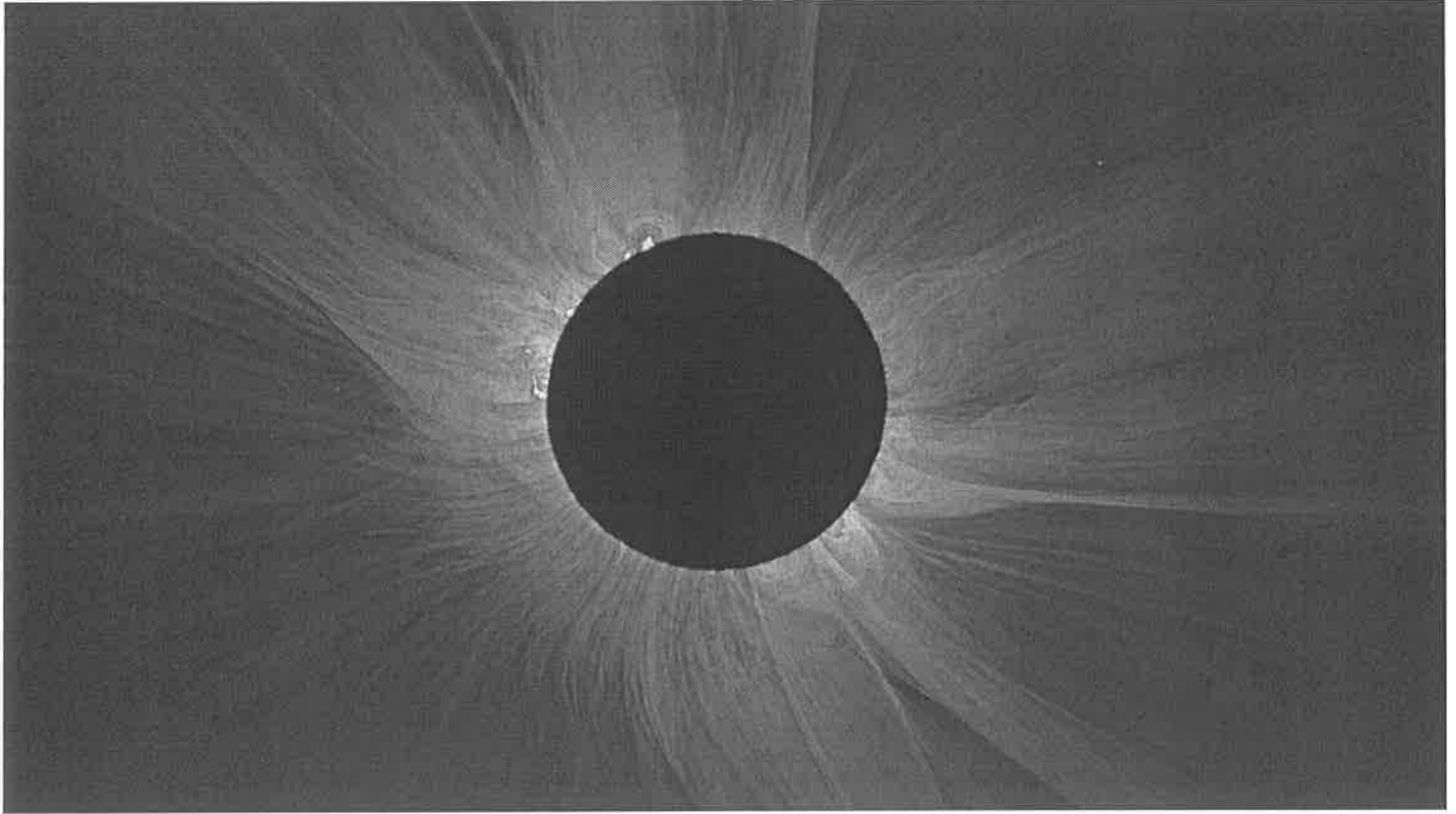


# How to safely view a solar eclipse

By Science Friday, adapted by Newsela staff on 08.14.17

Word Count **482**

Level **680L**



A total solar eclipse. Photo from: NASA. Illustrations by: Carrie Lapolla, [www.carrielapolla.com](http://www.carrielapolla.com).

A total solar eclipse is a rare event. But on August, 21, 2017, people across North America will get an opportunity to see one. The last time most people in the U.S. were able to see a total solar eclipse was 1918. The next time won't be until 2024! Here's a guide to get ready for the big event.

## Solar Eclipse Safety Tips

To safely observe an eclipse, special glasses are required. Be sure to use eclipse viewing glasses or solar viewers. Do not use viewers that are scratched or wrinkled. Do not use sunglasses, either. They are not safe for looking directly at the sun. If you don't have eclipse glasses or solar viewers, you can use a pinhole viewer. You can also use a solar viewing projector.

If you are in the path of totality, the sun will be completely hidden from view and the sky will appear dark. In the path of totality, you can remove your eclipse glasses while the moon is completely blocking the sun. The path of totality passes through several big cities. They include Salem, Oregon; Idaho Falls, Idaho; Lincoln, Nebraska; Kansas City, Missouri; St. Louis, Missouri; Nashville, Tennessee; Columbia, South Carolina; and Charleston, South Carolina.

The eclipse on August 21, 2017, will travel from west to east. It will

appear first in Oregon at around 9:05 a.m. Pacific Time. That is 12:05 p.m. on the East Coast. The eclipse will leave South Carolina at around 4:09 p.m. Eastern Time. That is 1:09 p.m. on the West Coast. The eclipse will complete its path across the United States in about 94 minutes.

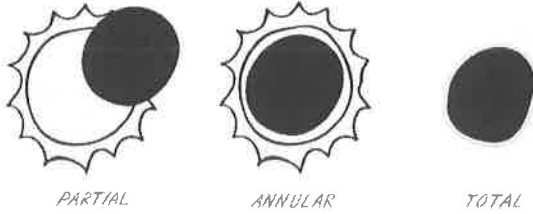
### What Is An Eclipse?

Eclipses occur when either the Earth or the moon blocks light from the Sun. This happens when the sun, Earth and moon are lined up. Sometimes the Moon lines up between the sun and the Earth. This blocks out the sun, causing a solar eclipse. Sometimes the Earth lines up between the sun and the Moon. This casts a shadow on the moon, causing a lunar eclipse.

### Why Doesn't This Happen All The Time?

The moon and the Earth both orbit the sun. But the moon's orbit does not quite line up with Earth's orbit. It is tilted 5 degrees away. For this reason, the moon is usually too high or too low to cause a solar eclipse.

### HOW DO I VIEW THE SOLAR ECLIPSE?



STEP 1  
Go outside



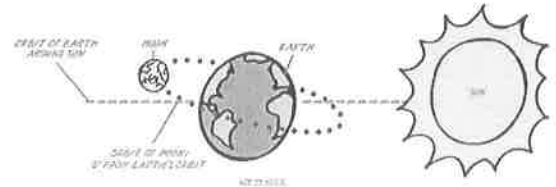
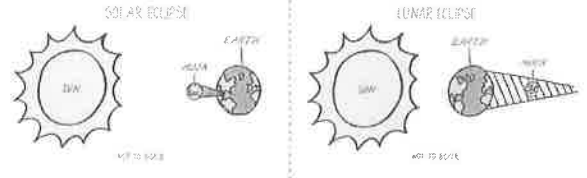
STEP 2  
Put on your eclipse glasses  
NEVER look directly at the sun without them!



Make sure the lenses have no visible damage and that the ISO 12312-2 International Standard

**DO NOT USE SUNGLASSES!**

STEP 3  
Look up and say  
wow, ooh, and ooh!



## Quiz

- 1 How does the information in "Why Doesn't This Happen All The Time?" support the MAIN idea of the article?
- (A) It explains why solar eclipses are so rare and special.
  - (B) It explains why you shouldn't look right at a solar eclipse.
  - (C) It explains why a solar eclipse is rarer than a lunar eclipse.
  - (D) It explains why the moon's orbit is tilted 5 degrees away.
- 2 Which sentence BEST summarizes the article?
- (A) A pinhole viewer is the best way to view a total solar eclipse.
  - (B) This summer's solar eclipse will be an amazing thing to see if viewed safely.
  - (C) A lunar eclipse and a solar eclipse have several things in common.
  - (D) It is challenging for the Earth and moon to line up exactly.
- 3 Examine the first diagram in the section "Solar Eclipse Safety Tips." What does this diagram show?
- (A) where to stand to see a solar eclipse
  - (B) how to make eclipse viewing glasses
  - (C) why it's dangerous to see an eclipse
  - (D) the safe way to see a solar eclipse
- 4 Read the section "What Is An Eclipse?"
- Based on the diagram and the text in that section, what do we know about eclipses?
- (A) The Earth, moon and sun need to be lined up in order for an eclipse to happen.
  - (B) For a solar eclipse, the sun must block the Earth.
  - (C) During a lunar eclipse, the moon blocks the sun.
  - (D) Total lunar and solar eclipses are rare occurrences.

# Trump of U.S. and Kim of North Korea are positive about their talks

By Associated Press, adapted by Newsela staff on 06.14.18

Word Count **688**

Level **870L**



U.S. President Donald Trump (right) shakes hands with North Korean leader Kim Jong Un at the Capella resort on Sentosa Island, Tuesday, June 12, 2018, in Singapore. Photo by: Evan Vucci/AP Photo

President Donald Trump and North Korean leader Kim Jong Un met on Tuesday, June 12. They met in Singapore, a country in Southeast Asia. They discussed plans to get rid of nuclear weapons in Korea. The leaders praised their face-to-face progress toward their goals. Trump faced questions at home about whether he got too little and gave away too much, though.

Trump and Kim's meeting was the first of its kind. Some American presidents have met with North Korean leaders after leaving office. A president still in office has never before met with a North Korean leader, though. The meeting seemed unthinkable months earlier. The two nations had traded insults and nuclear warnings. The gathering of the two unpredictable leaders was risky for the American president. In hopes of ending North Korea's nuclear program, the meeting granted Kim a place on the world stage that the North has wanted for a long time.

**Both Leaders Positive**

Both leaders were positive after about five hours of talks. Trump thanked Kim afterward. He said Kim took "the first bold step toward a bright new future for his people."

"The world will see a major change," Kim said.

After the meeting, Trump was very cheerful. He spoke to the media for more than an hour. He said the meeting was a historic success that will avoid the possibility of nuclear war.

The details of how and when the North would denuclearize, or get rid of their nuclear weapons, appear yet to be determined. It is also unclear what Trump is pledging to Kim and his government.

### **Two Countries Will Keep Talking**

The Singapore deal does not include a lot of detail. It mostly says that the two countries will keep talking.

The Korean War began in 1950 and fighting continued until 1953. Then the North and South agreed to stop fighting. However, they never agreed to officially end the war. For this reason, the United States is actually still supporting South Korea in the war against North Korea. The new deal does not take any steps toward changing that.

### **Surprising Move By Trump To Stop Military "War Games"**

It also does not include a surprising move by Trump. He told reporters he would stop U.S. military "war games" with South Korea while negotiations between the United States and the North continue. The United States and South Korea run military exercises every year. North Korea views the exercises as practice for resuming the war against them. North Korea says these military exercises are one reason why they need nuclear weapons. Trump said ending the exercises will save the United States money. He also said it would not be fair to carry out the exercises while talks continue.

Trump said Kim agreed to get rid of a missile engine testing site. The site is just one of many connected to the nuclear program, though.

### **Experts Struggle To Figure Out What Leaders Agreed To**

After the meeting, experts and allies struggled to figure out what Trump and Kim had agreed to. They wondered whether this deal could actually work. The North Koreans have broken deals like this before. Trump said his team would begin working on details with the North Koreans next week.

Trump said he and Kim have a "very good" relationship.

Trump has appeared unconcerned about what it means to honor a leader who mistreats his own people. The United States says that Kim ordered the killings of his half-brother and uncle. He runs a prison estimated to hold 80,000 to 120,000 prisoners, the United States says. The prisoners are being held for their beliefs or for speaking against the North Korean government.

The two leaders made a statement together. They promised to "build a lasting and stable peace" between North and South Korea.

Critics of the meeting did not like the leaders' handshake. The critics said it was more proof that Trump was helping Kim seem normal to the rest of the world.

Trump responded to the critics. He is opening up talks with Kim in hopes of saving as many as 30 million lives, he said.

## Quiz

1 What did President Trump hope to accomplish by meeting with Kim Jong Un?

- (A) He wanted North Korea to get rid of its nuclear weapons.
- (B) He wanted to organize military exercises with North Korea.
- (C) He wanted Kim to agree not to invade South Korea again.
- (D) He wanted to make Kim seem normal to the rest of the world.

2 Read the summary of the MAIN ideas of the article below.

*President Trump met with North Korean leader Kim Jong Un to discuss North Korea's nuclear program. A deal was created, but it is not very specific.*

Which option would complete the summary?

- (A) Experts agree that Trump's meeting with Kim had a good outcome.
- (B) People have had different reactions to Trump's meeting with Kim.
- (C) Critics say that Trump's meeting with Kim will cause more problems.
- (D) South Korea is upset that Trump decided to work with Kim.

3 Why did some critics question the deal between President Trump and North Korean leader Kim Jong Un?

- (A) They did not like that the United States agreed to give up its nuclear weapons.
- (B) They were concerned that North Korea had broken deals like this one in the past.
- (C) They felt that President Trump made too many demands on the North Korean leader.
- (D) They thought the deal included too many details about North Korea's nuclear weapons.

4 Read the selection from the introduction [paragraphs 1-2].

*Trump and Kim's meeting was the first of its kind. Some American presidents have met with North Korean leaders after leaving office. A president still in office has never before met with a North Korean leader, though. The meeting seemed unthinkable months earlier. The two nations had traded insults and nuclear warnings.*

HOW does this selection support the MAIN idea of the article?

- (A) It demonstrates that the meeting between Trump and Kim accomplished many of its goals.
- (B) It describes some of the positive reactions that Trump has received from many experts.
- (C) It lists some of the reasons why people are concerned about the deal between Trump and Kim.
- (D) It shows why this meeting is historic and why some thought it wouldn't happen.

5 Which statement BEST describes Kim Jong Un's leadership of North Korea?

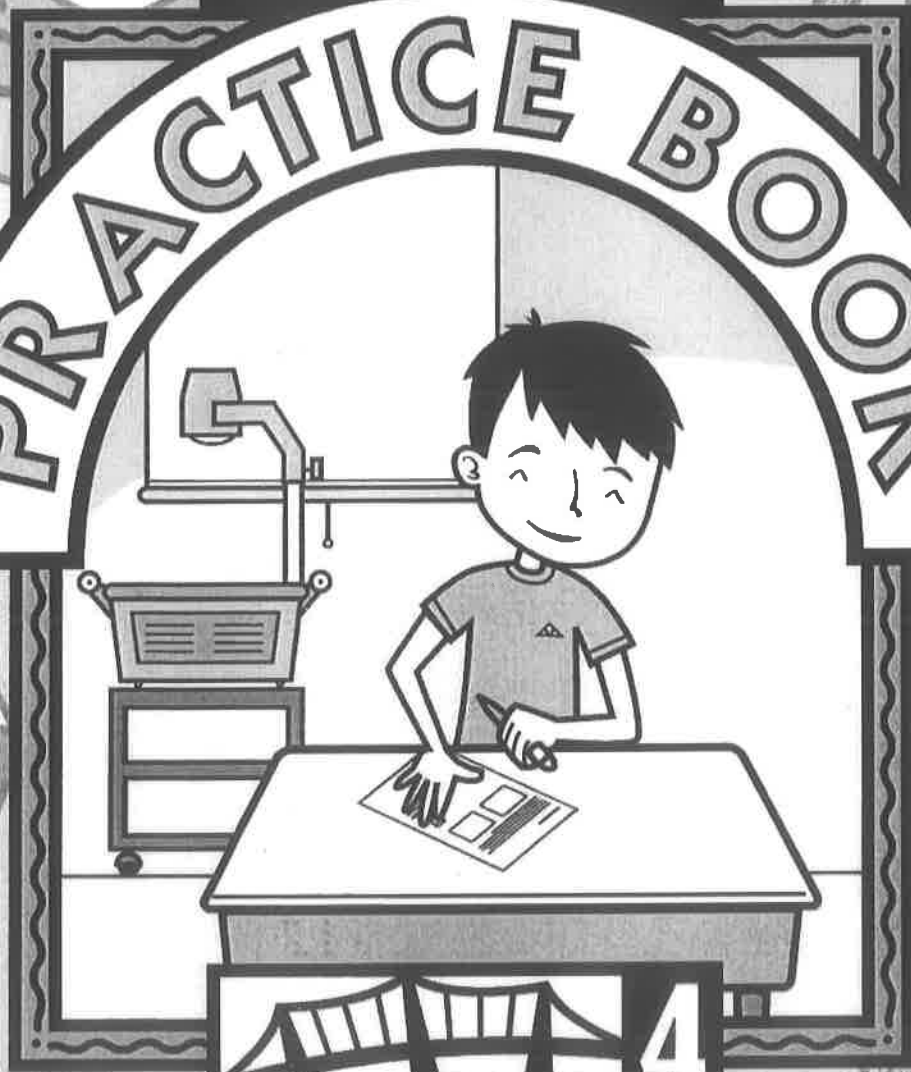
- (A) He is a kind and popular leader in North Korea.
- (B) He has a very good relationship with South Korea.
- (C) He is trying to get rid of North Korea's nuclear weapons.
- (D) He puts people in jail for speaking out against his government.

- 6 Why did President Trump feel optimistic after his meeting with North Korean leader Kim Jong Un?
- (A) He believes that he has ended the Korean War that began in the 1950s.
  - (B) He believes that he made North Korea scared of the United States.
  - (C) He believes that he has saved people from North Korea's deadly prisons.
  - (D) He believes that the meeting helps the two nations avoid nuclear conflict.
- 7 How did the meeting between President Trump and North Korean leader Kim Jong Un affect the relationship between the United States and South Korea?
- (A) Trump stopped "war games" that the United States does every year with South Korea.
  - (B) Trump says that the United States and South Korea now have a "very good relationship".
  - (C) South Korea and the United States became more united North Korea's efforts to build nuclear weapons.
  - (D) South Korea and the United States agreed to end the Korean War which they had been fighting since 1950.
- 8 Complete the sentence.
- Because of the meeting between Trump and Kim, \_\_\_\_\_.
- (A) North Korea promised to eliminate all of their nuclear testing sites, and the U.S. has agreed to side with North Korea against South Korea
  - (B) North Korea agreed to stop holding 80,000 to 120,000 people in their prisons, and the U.S. said it would stop participating in "war games"
  - (C) North Korea said it would get rid of a site in their nuclear program, and the U.S. agreed to end military exercises with South Korea
  - (D) North Korea decided that it would stop participating in military exercises with South Korea, and the U.S. said it would recognize North Korea's power



**BLACKLINES**

# 1 2 3 PRACTICE BOOK



**4**  
BRIDGES IN MATHEMATICS

**Martha Ruttle**



The MATH LEARNING CENTER

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## Multi-Digit Addition Review

1 Solve the problems below. Show all your work.

$$\begin{array}{r} 120 \\ + 207 \\ \hline \end{array}$$

$$\begin{array}{r} 459 \\ + 320 \\ \hline \end{array}$$

$$\begin{array}{r} 533 \\ + 429 \\ \hline \end{array}$$

$$\begin{array}{r} 332 \\ + 845 \\ \hline \end{array}$$

$$\begin{array}{r} 457 \\ + 372 \\ \hline \end{array}$$

$$\begin{array}{r} 538 \\ + 975 \\ \hline \end{array}$$

$$\begin{array}{r} 347 \\ 576 \\ + 423 \\ \hline \end{array}$$

$$\begin{array}{r} 1,438 \\ 2,754 \\ + 3,626 \\ \hline \end{array}$$

2 Rewrite these problems in vertical form. Then solve them. Show all your work.

**example**  $583 + 645$

$$\begin{array}{r} 1 \\ 583 \\ + 645 \\ \hline 1,228 \end{array}$$

**a**  $276 + 986$

**b**  $362 + 1,534$



### CHALLENGE

3 Use two numbers from the box to complete each addition problem below. You will use some numbers more than once.

|    |     |     |     |     |     |
|----|-----|-----|-----|-----|-----|
| 97 | 204 | 297 | 405 | 498 | 607 |
|----|-----|-----|-----|-----|-----|

$$\begin{array}{r} \boxed{\phantom{000}} \\ + \boxed{\phantom{000}} \\ \hline 3 \ 0 \ 1 \end{array}$$

$$\begin{array}{r} \boxed{\phantom{000}} \\ + \boxed{\phantom{000}} \\ \hline 3 \ 9 \ 4 \end{array}$$

$$\begin{array}{r} \boxed{\phantom{000}} \\ + \boxed{\phantom{000}} \\ \hline 1, \ 0 \ 1 \ 2 \end{array}$$

$$\begin{array}{r} \boxed{\phantom{000}} \\ + \boxed{\phantom{000}} \\ \hline 1, \ 1 \ 0 \ 5 \end{array}$$

$$\begin{array}{r} \boxed{\phantom{000}} \\ + \boxed{\phantom{000}} \\ \hline 7 \ 0 \ 2 \end{array}$$

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## Addition Story Problems

Solve the problems below. Show all your work.

**1** Last week, Jose picked 325 pounds of apples. Gloria picked 236 pounds of apples. How many pounds of apples did Jose and Gloria pick altogether? Show all your work.



**2** The year Marcus was born, there were 2,308 people living in the town where his parents lived. Now Marcus is nine years old, and the town has 856 more people than it did when he was born. How many people live in the town where Marcus lives? Show all your work.



### CHALLENGE

**3** Fran is flying in an airplane. Right now it is 13,500 feet above the ground. It will go 16,800 more feet before it stops going any higher. How high will the airplane be then? Show all your work.



NAME \_\_\_\_\_

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## Multi-Digit Subtraction Review

1 Solve the problems below. Show all your work.

$$\begin{array}{r} 649 \\ - 514 \\ \hline \end{array}$$

$$\begin{array}{r} 2,964 \\ - 723 \\ \hline \end{array}$$

$$\begin{array}{r} 482 \\ - 391 \\ \hline \end{array}$$

$$\begin{array}{r} 3,851 \\ - 1,470 \\ \hline \end{array}$$

$$\begin{array}{r} 4,582 \\ - 950 \\ \hline \end{array}$$

$$\begin{array}{r} 6,739 \\ - 547 \\ \hline \end{array}$$

$$\begin{array}{r} 385 \\ - 197 \\ \hline \end{array}$$

$$\begin{array}{r} 7,846 \\ - 4,928 \\ \hline \end{array}$$

2 Rewrite these problems in vertical form. Solve them and then add the numbers to check your answer. Show all your work.

|  |  |  |
|--|--|--|
| <p><b>example</b> <math>906 - 458</math></p> $\begin{array}{r} 89 \\ 906 \\ - 458 \\ \hline 448 \end{array}$ $\begin{array}{r} 11 \\ 458 \\ + 448 \\ \hline 906 \end{array}$ | <p><b>a</b> <math>607 - 569</math></p> | <p><b>b</b> <math>8,046 - 753</math></p> |
|--|--|--|



### CHALLENGE

3 Complete these problems. There is more than one correct solution to the first two problems.

a

$$\begin{array}{r} \square 0 1 \\ - \square \square \\ \hline \square 6 7 \end{array}$$

b

$$\begin{array}{r} \square 7 \square \\ - \square \square 2 \\ \hline 3 \square \square \end{array}$$

c

$$\begin{array}{r} 8 6 \square \\ - \square 4 1 \\ \hline 5 1 \square \end{array}$$

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## Subtraction Story Problems

Solve the problems below. Show all your work.

**1** Last week the cafeteria served 486 breakfast sandwiches. This week they served 538 breakfast sandwiches. How many more breakfast sandwiches did they serve this week?



**2** There were 6,742 bags of potato chips stored in the cafeteria. They served 781 of them at lunch. How many bags of potato chips are left?



### CHALLENGE

**3** At the basketball game last night, the home team was losing by 48 points at half time, so fans started to leave. If there were 18,862 people at the game when it started and 6,946 went home at half time, how many people were still at the game for the second half?



NAME \_\_\_\_\_

DATE \_\_\_\_\_

## Add, Subtract & Multiply

1 Solve the addition and subtraction problems below Show all your work.

$$\begin{array}{r} \$1.74 \\ + \$2.25 \\ \hline \end{array}$$

$$\begin{array}{r} \$20.71 \\ + \$6.55 \\ \hline \end{array}$$

$$\begin{array}{r} \$43.53 \\ + \$7.18 \\ \hline \end{array}$$

$$\begin{array}{r} \$8.14 \\ + \$7.03 \\ \hline \end{array}$$

$$\begin{array}{r} \$5.32 \\ - \$2.81 \\ \hline \end{array}$$

$$\begin{array}{r} \$3.42 \\ - \$1.84 \\ \hline \end{array}$$

$$\begin{array}{r} \$54.66 \\ - \$6.93 \\ \hline \end{array}$$

$$\begin{array}{r} \$3.04 \\ - \$1.26 \\ \hline \end{array}$$

2 Rewrite these problems in vertical form. Then solve them. Show all your work.

**example**  $\$2.96 + \$8.45$

$$\begin{array}{r} \phantom{\$}11 \\ \phantom{\$}2.96 \\ + \phantom{\$}8.45 \\ \hline \phantom{\$}11.41 \end{array}$$

**a**  $\$4.72 + \$2.39$

**b**  $\$506.00 - \$3.57$

3 Complete these multiplication problems.

$$\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 7 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 10 \\ \hline \end{array}$$

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## Shopping Problems

Solve the problems below. Show all your work.

**1** George, Nico, and Brandon went to the store. George spent \$1.86 on fruit. Nico spent \$2.03 on a drink. Brandon spent \$1.45 on candy. How much did they spend altogether?

**2** Emma had \$5.80 in her pocket when she went to the store. If she spent \$3.97, how much money did she have left?



### CHALLENGE

**3** Susie has three brothers who are triplets. For their birthday, she bought each brother a rubber ball that cost 71¢ and a T-shirt that cost \$12.99. How much did she spend altogether on their birthday presents?



NAME \_\_\_\_\_

DATE \_\_\_\_\_

## Addition, Subtraction & Clock Problems

1 Solve the problems below Show all your work.

$$\begin{array}{r} 845 \\ + 127 \\ \hline \end{array}$$

$$\begin{array}{r} 795 \\ + 109 \\ \hline \end{array}$$

$$\begin{array}{r} 4,639 \\ + 2,467 \\ \hline \end{array}$$

$$\begin{array}{r} 379 \\ + 196 \\ \hline \end{array}$$

$$\begin{array}{r} 6,536 \\ - 2,618 \\ \hline \end{array}$$

$$\begin{array}{r} 805 \\ - 108 \\ \hline \end{array}$$

$$\begin{array}{r} 2,305 \\ - 107 \\ \hline \end{array}$$

$$\begin{array}{r} 6,002 \\ - 336 \\ \hline \end{array}$$

2 Use the clocks to solve the problems below.

a Anna leaves school at 3:10 to walk home. The clock below shows what time she gets home. How long does it take Anna to walk home?



b Joseph leaves school at 3:05 to take the bus home. The clock below shows what time he gets home. How long is Joseph's bus ride?



c Maribel leaves school at 3:10 to walk home. One day, she stopped at the store on the way home and spent 20 minutes shopping. If she got home at the time shown on the clock, how much time did she spend walking?



**CHALLENGE**



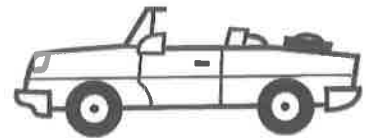
NAME \_\_\_\_\_

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## Miles, Books & Jellybeans

Solve the problems below. Show all your work.

**1** Felipe's family is driving to see his grandmother. Altogether, they have to drive 856 miles. If they have gone 269 miles so far, how much farther do they have to drive?



**2** In our classroom library, we had 326 books. We gave 38 books to the other fourth grade classroom, but our teacher got 97 more books for our classroom library. How many books do we have in our classroom library now?



### CHALLENGE

**3** At the school fair, students were guessing how many jellybeans were in a jar. Nicky guessed there were 296 jellybeans. Caitlyn guessed there were 435 jellybeans. Samira guessed a number that was 52 more than Nicky and Caitlyn's put together. What was Samira's guess?



NAME \_\_\_\_\_

DATE \_\_\_\_\_

## Round 'Em Up!

1 Solve the problems below. Show all your work.

$$\begin{array}{r} 7,538 \\ - 724 \\ \hline \end{array}$$

$$\begin{array}{r} 635 \\ 202 \\ + 169 \\ \hline \end{array}$$

$$\begin{array}{r} 2,648 \\ + 4,397 \\ \hline \end{array}$$

$$\begin{array}{r} 5,538 \\ - 1,263 \\ \hline \end{array}$$

2 Round the numbers below to the nearest ten. When you round to the nearest ten, look at the number in the ones place. If it is 5 or higher, round up to the next highest ten. If it is less than 5, keep the number in the tens place the same.

|                      |                        |                |                |
|----------------------|------------------------|----------------|----------------|
| <b>ex a</b> 63    60 | <b>ex b</b> 186    190 | <b>a</b> 47    | <b>b</b> 52    |
| <b>c</b> 35          | <b>d</b> 94            | <b>e</b> 122   | <b>f</b> 856   |
| <b>g</b> 267         | <b>h</b> 993           | <b>i</b> 1,247 | <b>j</b> 2,052 |

3 Round the numbers below to the nearest hundred. When you round to the nearest hundred, look at the number in the tens place. If it is 5 or higher, round up to the next highest hundred. If it is less than 5, keep the number in the hundreds place the same.

|                        |                        |                       |              |
|------------------------|------------------------|-----------------------|--------------|
| <b>ex a</b> 163    200 | <b>ex b</b> 627    600 | <b>ex c</b> 82    100 | <b>a</b> 203 |
| <b>b</b> 254           | <b>c</b> 822           | <b>d</b> 439          | <b>e</b> 67  |
| <b>f</b> 153           | <b>g</b> 764           | <b>h</b> 449          | <b>i</b> 657 |



### CHALLENGE

4 Write two different numbers that round up or down to each number shown.

|                             |              |              |
|-----------------------------|--------------|--------------|
| <b>ex</b> 400    438    384 | <b>a</b> 20  | <b>b</b> 80  |
| <b>c</b> 100                | <b>d</b> 300 | <b>e</b> 700 |

NAME \_\_\_\_\_

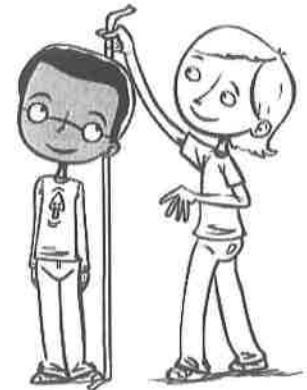
DATE \_\_\_\_\_

## Centimeters, Decimeters & Meters

The information below will help you solve Problems 1–3.

- There are 10 centimeters in 1 decimeter.
- There are 10 decimeters in 1 meter.

**1a** Luis and Sara measured their heights in centimeters. Luis was 132 cm tall, and Sara was 148 cm tall. What is the sum of their heights in centimeters? Show your work.



**b** What is the sum of their heights in decimeters? Show your work.

**2** The snail crawled 1 meter in the morning, 4 decimeters after lunch, and 60 centimeters before falling asleep. How far did the snail crawl altogether? Express your answer in centimeters, decimeters, and meters. Show your work.

**a** The snail crawled \_\_\_\_\_ centimeters.

**b** The snail crawled \_\_\_\_\_ decimeters.

**c** The snail crawled \_\_\_\_\_ meters.



### CHALLENGE

**3a** Sidney Snail crawled two and a half meters in a half hour. Sherman Snail crawled 487 centimeters in an hour. Who crawled farther, Sidney or Sherman? How much farther? Show your work.

**b** Which snail was faster? Explain your answer.



NAME \_\_\_\_\_

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## Multiplication & Division Facts

1 Solve the problems below.

$$\begin{array}{r} 8 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 4 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 3 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 2 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 0 \\ \times 1 \\ \hline \end{array}$$

$$\begin{array}{r} 1 \\ \times 8 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 6 \\ \hline \end{array}$$

$$\begin{array}{r} 9 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 10 \\ \times 4 \\ \hline \end{array}$$

$$\begin{array}{r} 5 \\ \times 3 \\ \hline \end{array}$$

$$\begin{array}{r} 7 \\ \times 9 \\ \hline \end{array}$$

$$\begin{array}{r} 6 \\ \times 8 \\ \hline \end{array}$$

$63 \div 7 = \underline{\quad\quad}$

$42 \div 7 = \underline{\quad\quad}$

$36 \div 4 = \underline{\quad\quad}$

$20 \div 5 = \underline{\quad\quad}$

$16 \div 8 = \underline{\quad\quad}$

$18 \div 3 = \underline{\quad\quad}$

$6 \div 3 = \underline{\quad\quad}$

$14 \div 2 = \underline{\quad\quad}$

2 Fill in the missing numbers.

$$\begin{array}{r} 6 \\ \times 3 \\ \hline \square \end{array}$$

$$\begin{array}{r} 4 \\ \times 5 \\ \hline \square \end{array}$$

$$\begin{array}{r} 5 \\ \times 7 \\ \hline \square \end{array}$$

$$\begin{array}{r} 8 \\ \times 4 \\ \hline \square \end{array}$$

$$\begin{array}{r} 8 \\ \times 8 \\ \hline \square \end{array}$$

$$\begin{array}{r} 3 \\ \times \square \\ \hline 6 \end{array}$$

$$\begin{array}{r} 2 \\ \times \square \\ \hline 10 \end{array}$$

$$\begin{array}{r} \square \\ \times 5 \\ \hline 15 \end{array}$$

$$\begin{array}{r} \square \\ \times 8 \\ \hline 40 \end{array}$$

$$\begin{array}{r} 9 \\ \times \square \\ \hline 72 \end{array}$$



### CHALLENGE

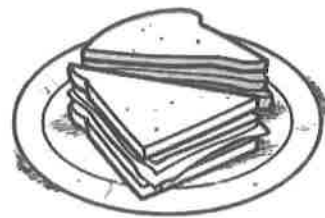
3 Use words and/or numbers to show how you could use the answer to  $4 \times 8$  to solve  $4 \times 16$ .

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## Sandwiches, Pizza & Books

**1** Rodney had a friend over on Saturday. His dad took them out for sandwiches. Each person (Rodney, his dad, and his friend) got a sandwich for \$6. How much did they spend on sandwiches altogether? Show all your work.



**2** Jasmine had a pizza party with 3 of her friends to celebrate the last day of school. They ordered 2 pizzas. Each pizza had 8 slices. They all ate the same amount of pizza and finished both pizzas. How many pieces did each person eat? Show all your work.



### CHALLENGE

**3** There were 12,387 books in the school library. The librarian bought 445 more books to add to the library and put 126 books on the Give Away shelf near the office. How many books are in the library now? Show all your work.



NAME \_\_\_\_\_

DATE \_\_\_\_\_

# All in the Family

1 Fill in the missing number in each triangle. Then write the facts in the fact family.

|  |  |  |
|--|--|--|
| <p><b>example</b></p> <div style="text-align: center;"> </div> $\begin{array}{r} 2 \times 8 = 16 \\ 8 \times 2 = 16 \\ 16 \div 8 = 2 \\ 16 \div 2 = 8 \end{array}$   | <p><b>a</b></p> <div style="text-align: center;"> </div> $\begin{array}{r} \_\_\_ \times \_\_\_ = \_\_\_ \\ \_\_\_ \times \_\_\_ = \_\_\_ \\ \_\_\_ \div \_\_\_ = \_\_\_ \\ \_\_\_ \div \_\_\_ = \_\_\_ \end{array}$ | <p><b>b</b></p> <div style="text-align: center;"> </div> $\begin{array}{r} \_\_\_ \times \_\_\_ = \_\_\_ \\ \_\_\_ \times \_\_\_ = \_\_\_ \\ \_\_\_ \div \_\_\_ = \_\_\_ \\ \_\_\_ \div \_\_\_ = \_\_\_ \end{array}$ |
| <p><b>c</b></p> <div style="text-align: center;"> </div> $\begin{array}{r} \_\_\_ \times \_\_\_ = \_\_\_ \\ \_\_\_ \times \_\_\_ = \_\_\_ \\ \_\_\_ \div \_\_\_ = \_\_\_ \\ \_\_\_ \div \_\_\_ = \_\_\_ \end{array}$ | <p><b>d</b></p> <div style="text-align: center;"> </div> $\begin{array}{r} \_\_\_ \times \_\_\_ = \_\_\_ \\ \_\_\_ \times \_\_\_ = \_\_\_ \\ \_\_\_ \div \_\_\_ = \_\_\_ \\ \_\_\_ \div \_\_\_ = \_\_\_ \end{array}$ | <p><b>e</b></p> <div style="text-align: center;"> </div> $\begin{array}{r} \_\_\_ \times \_\_\_ = \_\_\_ \\ \_\_\_ \times \_\_\_ = \_\_\_ \\ \_\_\_ \div \_\_\_ = \_\_\_ \\ \_\_\_ \div \_\_\_ = \_\_\_ \end{array}$ |



## CHALLENGE

2 Use multiplication and division to find the secret path through each maze. You can only move one space up, down, over, or diagonally each time. Write two equations to explain the path through the maze.

|   |  |  |
|---|--|--|
| <p><b>example</b></p> <div style="text-align: center;"> </div> <p><math>3 \times 8 = 24</math><br/><math>24 \div 6 = 4</math></p> | <p><b>a</b></p> <div style="text-align: center;"> </div> | <p><b>b</b></p> <div style="text-align: center;"> </div> |
|---|--|--|

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## Flowers, Shells & Cards

**1** Lisa, Imani, and Carla, and were picking flowers for their aunt. If they each picked 8 flowers, how many flowers did they pick altogether? Show all your work.



**2** Frank collected 18 beautiful shells for his 3 cousins. If he gave each cousin the same number of shells, how many shells did each cousin get? Show all your work.



### CHALLENGE

**3** Four friends were making cards to sell at the holiday sale. Each friend made 9 cards. They put all their cards together and then bundled them in groups of 6 cards to sell. How many bundles of 6 cards did they have to sell? Show all your work.



NAME \_\_\_\_\_

DATE \_\_\_\_\_

## Multiples & Multiplication Facts

**1** When you count by a number, you are naming the multiples of that number. For example, if you skip count by 5's, you are naming the multiples of five: 5, 10, 15, 20, 25, and so on. In each sequence below, fill in the missing multiples.

|  |   |
|--|---|
| <b>ex</b> 5, 10, 15, <u>20</u> , 25, 30, <u>35</u> | <b>a</b> 3, 6, _____, 12, 15, 18, _____, 24 |
| <b>b</b> 6, _____, 18, _____, 30                   | <b>c</b> 9, 18, _____, 36, 45, _____, 63    |

**2** Circle all the multiples of the number in each box.

|             |    |           |           |    |    |           |    |            |    |    |    |    |    |    |    |
|-------------|----|-----------|-----------|----|----|-----------|----|------------|----|----|----|----|----|----|----|
| <b>ex</b> 5 | 16 | <u>20</u> | <u>15</u> | 42 | 36 | <u>45</u> | 18 | <b>a</b> 2 | 5  | 6  | 7  | 8  | 14 | 21 | 10 |
| <b>b</b> 4  | 8  | 6         | 14        | 16 | 20 | 28        | 19 | <b>c</b> 7 | 22 | 33 | 21 | 14 | 16 | 42 | 35 |
| <b>d</b> 8  | 28 | 32        | 48        | 16 | 60 | 72        | 19 | <b>e</b> 3 | 21 | 35 | 18 | 36 | 44 | 12 | 29 |

**3** Fill in the missing numbers.

|   |   |   |   |   |
|---|---|---|---|---|
| $\begin{array}{r} 9 \\ \times 9 \\ \hline \square \end{array}$  | $\begin{array}{r} 3 \\ \times 9 \\ \hline \square \end{array}$  | $\begin{array}{r} 4 \\ \times 4 \\ \hline \square \end{array}$  | $\begin{array}{r} 2 \\ \times 6 \\ \hline \square \end{array}$  | $\begin{array}{r} 7 \\ \times 8 \\ \hline \square \end{array}$  |
| $\begin{array}{r} 3 \\ \times \square \\ \hline 24 \end{array}$ | $\begin{array}{r} 7 \\ \times \square \\ \hline 14 \end{array}$ | $\begin{array}{r} \square \\ \times 5 \\ \hline 30 \end{array}$ | $\begin{array}{r} \square \\ \times 4 \\ \hline 36 \end{array}$ | $\begin{array}{r} 3 \\ \times \square \\ \hline 12 \end{array}$ |



### CHALLENGE

|  |  |  |   |   |
|--|--|--|---|---|
| $\begin{array}{r} 6 \\ \times 2 \\ \hline \square \end{array}$ | $\begin{array}{r} 6 \\ \times 4 \\ \hline \square \end{array}$ | $\begin{array}{r} 6 \\ \times 8 \\ \hline \square \end{array}$ | $\begin{array}{r} 6 \\ \times 16 \\ \hline \square \end{array}$ | $\begin{array}{r} 6 \\ \times 32 \\ \hline \square \end{array}$ |
|--|--|--|---|---|



NAME \_\_\_\_\_

DATE \_\_\_\_\_

## Tasty Treats

**1** Joseph works at an ice cream stand. He sold 5 milkshakes per hour on Saturday. If he worked for 8 hours, how many milkshakes did he sell on Saturday? Show all your work.



**2** On the last day of school, Mr. Jackson brought in some cookies for the 6 students in his reading group. He had a box with 15 cookies in it and, to be fair, he gave each student the same number of cookies. How many cookies did each student get? Show all your work.



### CHALLENGE

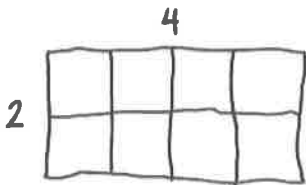
**3** At her farm stand, Judy had 126 pounds of lettuce, 267 pounds of corn, and 155 pounds of tomatoes. She sold 83 pounds of lettuce, 182 pounds of corn, and 86 pounds of tomatoes. How many pounds of vegetables does she have left? Show all your work.

NAME \_\_\_\_\_

DATE \_\_\_\_\_

# Arrays & Factors

**1** Draw and label a rectangular array to show two factors for each number. Do not use 1 as one of your factors. Then write the fact family that goes with your array.

|  |  |  |
|--|--|--|
| <p><b>example 8</b></p> <div style="text-align: center;">  </div> $\begin{array}{r} 2 \times 4 = 8 \\ 4 \times 2 = 8 \\ 8 \div 4 = 2 \\ 8 \div 2 = 4 \end{array}$ | <p><b>a 16</b></p> $\begin{array}{r} \underline{\quad} \times \underline{\quad} = \underline{\quad} \\ \underline{\quad} \times \underline{\quad} = \underline{\quad} \\ \underline{\quad} \div \underline{\quad} = \underline{\quad} \\ \underline{\quad} \div \underline{\quad} = \underline{\quad} \end{array}$ | <p><b>b 18</b></p> $\begin{array}{r} \underline{\quad} \times \underline{\quad} = \underline{\quad} \\ \underline{\quad} \times \underline{\quad} = \underline{\quad} \\ \underline{\quad} \div \underline{\quad} = \underline{\quad} \\ \underline{\quad} \div \underline{\quad} = \underline{\quad} \end{array}$ |
|--|--|--|

**2** List all the factors of each number below.

|              |   |             |  |
|--------------|---|-------------|--|
| <b>ex</b> 12 |  | <b>a</b> 16 |  |
| <b>b</b> 17  |   | <b>c</b> 24 |  |
| <b>d</b> 9   |   | <b>e</b> 36 |  |

**3a** Circle the prime number(s) in problem 2.

**b** Draw a square around the square number(s) in problem 2.



## CHALLENGE

**4** Fill in the missing digits in the problems below.

**example**

$$\begin{array}{r} 78 \boxed{3} 4 \\ - 69 \boxed{3} \\ \hline \boxed{1} 4 1 \end{array}$$

**a**

$$\begin{array}{r} 3 \boxed{\quad} 6 \\ + \boxed{\quad} 9 \boxed{\quad} \\ \hline 7 0 4 \end{array}$$

**b**

$$\begin{array}{r} 6 2 3 \\ - \boxed{\quad} 4 \boxed{\quad} \\ \hline 1 \boxed{\quad} 7 \end{array}$$

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## The Big Race & the Walk-a-Thon

**1** Hannah is running in big race that is 27 kilometers long. If she runs 9 kilometers per hour, how long will it take her to run the race? Show all your work.



**2** Peter is in a walk-a-thon. He walks about 5 kilometers per hour. If he walks for 6 hours, about how far will he walk? Show all your work.



**3** There are 32 students in Ms. Lopez's fourth grade class. If she made 2 equal groups of students, there would be 16 students in each group. What are the other ways she could divide the students into equal groups? Show all your work.

NAME \_\_\_\_\_

DATE \_\_\_\_\_

# Area & Perimeter

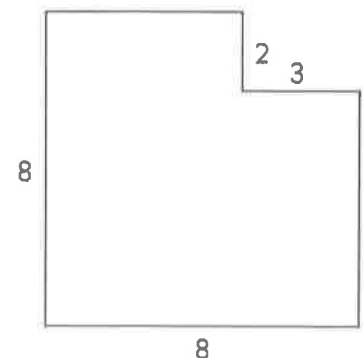
**1** Find the area and perimeter of each rectangle. Area is the total amount of space covered by the rectangle. Perimeter is the distance around the rectangle.

|   |  |
|---|--|
| <p><b>example</b></p> <div style="text-align: center; margin-bottom: 10px;"> </div> <p>Perimeter <u>3 + 3 + 5 + 5 = 16 units</u></p> <p>Area <u>3 × 5 = 15 square units</u></p> | <p><b>a</b></p> <div style="text-align: center; margin-bottom: 10px;"> </div> <p>Perimeter _____</p> <p>Area _____</p> |
| <p><b>b</b></p> <div style="text-align: center; margin-bottom: 10px;"> </div> <p>Perimeter _____</p> <p>Area _____</p>  | <p><b>c</b></p> <div style="text-align: center; margin-bottom: 10px;"> </div> <p>Perimeter _____</p> <p>Area _____</p> |



## CHALLENGE

**2** Find the area and perimeter of this shape. Show all your work.



Perimeter \_\_\_\_\_

Area \_\_\_\_\_

NAME \_\_\_\_\_

DATE \_\_\_\_\_

## Area & Perimeter Story Problems

- You can make sketches to help solve the problems below. Remember to include the units of measurement in your answers. Show all of your work.

**1a** The classroom rug is 9 feet long and 8 feet wide. What is the total area of the rug?

**b** What is the perimeter of the rug?

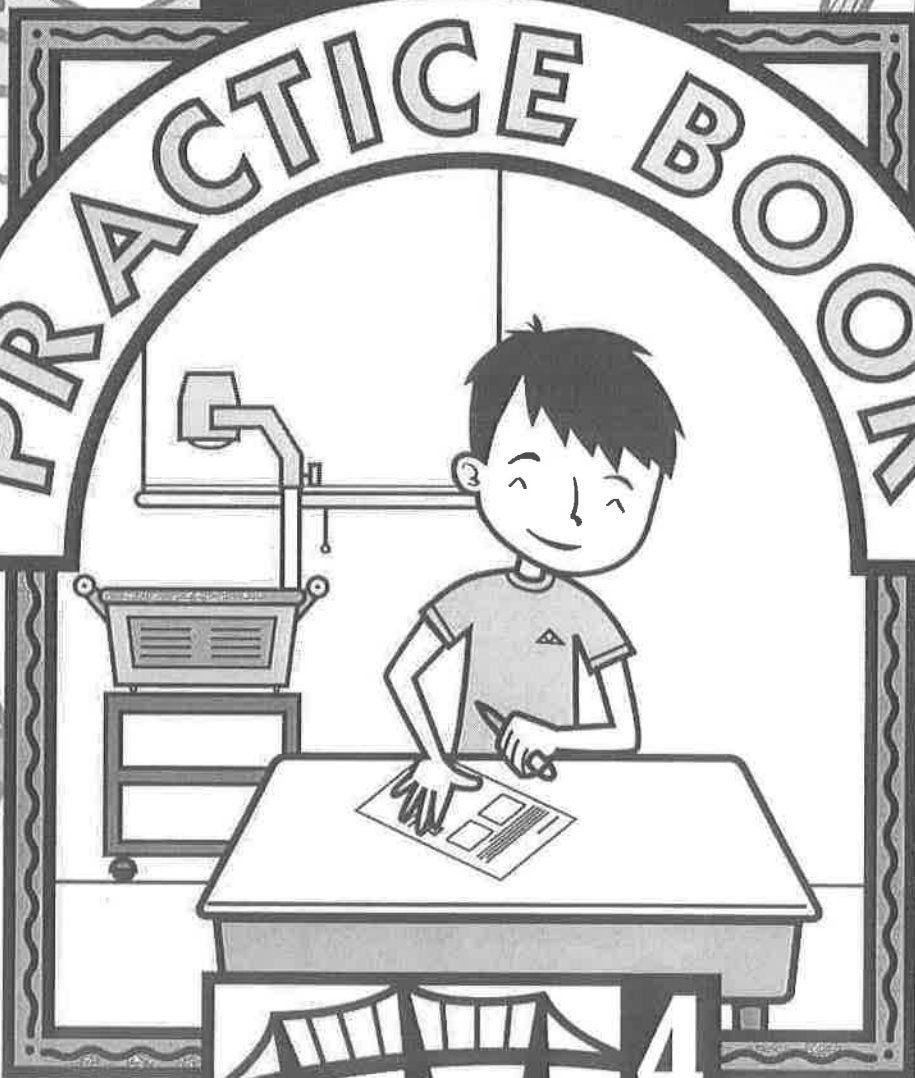
- **2a** Chrissy is going to make a big painting on a piece of wood that is 4 feet wide and 7 feet long. What is the total area of the piece of wood?

**b** What is the perimeter of the piece of wood?

**3** The school playground measures 465 feet by 285 feet. What is the perimeter of the playground?

**BLACKLINES**

# BRIDGES IN MATHEMATICS PRACTICE BOOK



**BRIDGES IN MATHEMATICS**

**4**

**Martha Ruttle**



The MATH LEARNING CENTER

## Grade 4 Practice Book



## ANSWER KEY

## Use after Unit One, Session 10

## Page 1, Multi-Digit Addition Review

- 327; 779; 962; 1,177  
829; 1,513; 1,346; 7,818
- a 1,262  
b 1,896
- (challenge)

$$\begin{array}{r} \boxed{97} \\ + \boxed{204} \\ \hline 301 \end{array} \quad \begin{array}{r} \boxed{97} \\ + \boxed{297} \\ \hline 394 \end{array} \quad \begin{array}{r} \boxed{405} \\ + \boxed{607} \\ \hline 1,012 \end{array} \quad \begin{array}{r} \boxed{607} \\ + \boxed{498} \\ \hline 1,105 \end{array} \quad \begin{array}{r} \boxed{297} \\ + \boxed{405} \\ \hline 702 \end{array}$$

## Page 2, Addition Story Problems

- 561 pounds of apples
- 3,164 people
- (challenge) 30,300 feet

## Page 3, Multi-Digit Subtraction Review

- 135; 2,241; 91; 2,381  
3,632; 6,192; 188; 2,918
- a 38  
b 7,293
- a (challenge)  $301 - 34 = 267$  (This is just one possible solution; there are many.)  
b (challenge)  $674 - 352 = 322$  (This is just one possible solution; there are many.)  
c (challenge)  $860 - 341 = 519$

## Page 4, Subtraction Story Problems

- 52 breakfast sandwiches
- 5,961 bags of potato chips
- (challenge) 11,916 people were still at the game

## Page 5, Add, Subtract &amp; Multiply

- \$3.99; \$27.26; \$50.71; \$15.17  
\$2.51; \$1.58; \$47.73; \$1.78
- a \$7.11  
b \$502.43
- 24, 20, 27, 14, 0, 6  
24, 28, 32, 0, 49, 20

## Page 6, Shopping Problems

- \$5.34
- \$1.83
- (challenge) \$41.10

## Page 7, Addition, Subtraction &amp; Clock Problems

- 972; 904; 7,106; 575  
3,918; 697; 2,198; 5,666
- a 25 minutes  
b 20 minutes  
c (challenge) 15 minutes

## Page 8, Miles, Books &amp; Jellybeans

- 587 miles
- 385 books
- (challenge) 783 jellybeans

## Page 9, Round 'Em Up!

- 6,814; 1,006; 7,045; 4,275
- a 50  
b 50  
c 40  
d 90  
e 120  
f 860  
g 270  
h 990  
i 1,250  
j 2,050
- a 200  
b 300  
c 800  
d 400  
e 100  
f 200  
g 800  
h 400  
i 700
- a-e (challenge) Solutions will vary.

## Page 10, Centimeters, Decimeters &amp; Meters

- a 280 centimeters  
b 28 decimeters
- a 200  
b 20  
c 2



### Use after Unit One, Session 10 (cont.)

#### Page 10, Centimeters, Decimeters & Meters (cont.)

- 3 a (challenge) Sherman crawled 237 cm farther than Sidney.  
 b (challenge) Explanations will vary.  
 Example: *Sidney was faster because he would have gone 5 meters or 500 cm in an hour.*

### Use after Unit One, Session 21

#### Page 11, Multiplication & Division Facts

- 1 24, 16, 42, 30, 24, 18, 0  
 8, 36, 36, 40, 15, 63, 48  
 9, 6, 9, 4  
 2, 6, 2, 7
- 2 18, 20, 35, 32, 64  
 2, 5, 3, 5, 8
- 3 (challenge) Responses will vary. Example: *Since 16 is  $2 \times 8$ , you can multiply the answer to  $4 \times 8$  by 2 to get  $4 \times 16$ .  $4 \times 8 = 32$  and  $32 \times 2 = 64$ , so  $4 \times 16 = 32$ .*

#### Page 12, Sandwiches, Pizza & Books

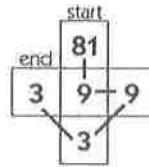
- 1 \$18  
 2 4 pieces of pizza  
 3 (challenge) 12,706 books

#### Page 13, All in the Family

1

|  |  |  |
|--|--|--|
| <p>example</p> $\begin{array}{r} 2 \times 8 = 16 \\ 8 \times 2 = 16 \\ 16 \div 8 = 2 \\ 16 \div 2 = 8 \end{array}$ | <p>a</p> $\begin{array}{r} 3 \times 7 = 21 \\ 7 \times 3 = 21 \\ 21 \div 7 = 3 \\ 21 \div 3 = 7 \end{array}$ | <p>b</p> $\begin{array}{r} 5 \times 6 = 30 \\ 6 \times 5 = 30 \\ 30 \div 6 = 5 \\ 30 \div 5 = 6 \end{array}$ |
| <p>c</p> $\begin{array}{r} 6 \times 8 = 48 \\ 8 \times 6 = 48 \\ 48 \div 6 = 8 \\ 48 \div 8 = 6 \end{array}$       | <p>d</p> $\begin{array}{r} 4 \times 8 = 32 \\ 8 \times 4 = 32 \\ 32 \div 4 = 8 \\ 32 \div 8 = 4 \end{array}$ | <p>e</p> $\begin{array}{r} 3 \times 6 = 18 \\ 6 \times 3 = 18 \\ 18 \div 6 = 3 \\ 18 \div 3 = 6 \end{array}$ |

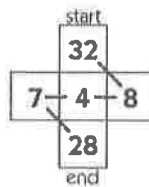
#### 2 a (challenge)



$$81 \div 9 = 9$$

$$9 \div 3 = 3$$

#### b (challenge)



$$32 \div 8 = 4$$

$$4 \times 7 = 28$$

#### Page 14, Flowers, Shells & Cards

- 1 24 flowers  
 2 6 shells  
 3 (challenge) 6 bundles

#### Page 15, Multiples & Multiplication Facts

- 1 a 9, 21  
 b 12, 24  
 c 27, 54
- 2 a 6, 8, 14, 10 should be circled.  
 b 8, 16, 20, 28 should be circled.  
 c 21, 14, 42, 35 should be circled.  
 d 32, 48, 16, 72 should be circled.  
 e 21, 18, 36, 12 should be circled.
- 3 81, 27, 16, 12, 56  
 8, 2, 6, 9, 4  
 (challenge) 12, 24, 48, 96, 192

#### Page 16, Tasty Treats

- 1 40 milkshakes  
 2 There are two possible answers:  
 2 cookies each, with 3 cookies left over OR  
 2½ cookies each  
 3 (challenge) 197 pounds of vegetables