

## DAY 3 READING/SOCIAL ASSIGNMENTS

### READING

\_\_\_\_\_ READ SNOWBOARDING DILEMMA

\_\_\_\_\_ ANSWER SNOWBOARDING DILEMMA QUESTIONS

\_\_\_\_\_ COMPLETE THE SUMMARIZING PAGE

\_\_\_\_\_ 30 MINUTES OF AR READING

### SOCIAL

\_\_\_\_\_ READ *TO THE MOON... AND BACK!*

\_\_\_\_\_ READ *HISTORY MAKERS: KATHERINE JOHNSON*

\_\_\_\_\_ COMPLETE THE QUIZ PAGE

### OTHER ASSIGNMENTS YOU CAN WORK ON...

-STUDY WEEKLY VOCAB WORDS

-WORK ON THE WEEKLY IXLs

-WORK ON BODDLE ASSIGNMENTS

## DAY 3 Math/Science

### ASSIGNMENTS

#### Math

\_\_\_\_\_ Complete Mastering Math Facts

\_\_\_\_\_ Complete Multiplication 2x2 (C)

\_\_\_\_\_ Complete Long Division Error #2

\_\_\_\_\_ Practice Math Facts

#### Science

\_\_\_\_\_ Read *The Science of Goal!*

\_\_\_\_\_ Play OUTSIDE for 30 minutes

### OTHER ASSIGNMENTS YOU CAN WORK ON...

- Get Green Light in Reflex

-Work on the weekly IXLs

-Study Island (If assigned)



Name \_\_\_\_\_ Date \_\_\_\_\_

# Snowboarding Dilemma

Robby's phone rang, and he ran to the kitchen to answer it. It was his friend Kyle. Kyle said that everyone was going up to Crosby Hill to go snowboarding. He also said to hurry because it was supposed to warm up in the afternoon. The snow would probably melt then.

Robby ran to the garage to grab his snowboard and boots, but they were gone! He went inside to look for his older brother Wayne, but Wayne was nowhere to be found. Finally, Robby's mom came home, and he asked where Wayne was.

"Oh, he went out of town for the weekend with a couple of friends," she said. "I think they were going to Sugarpeak Mountain."

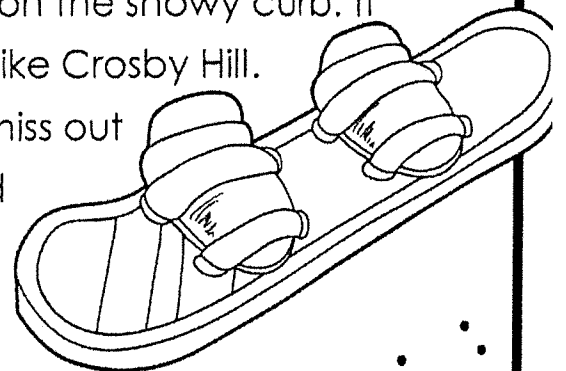
"Did he have my snowboard with him?" Robby asked.

"He did! He said that he'd asked your permission," his mom replied.

Robby was dejected. It was a perfect day for snowboarding, but Wayne had stolen his board. It was such a pain hiking up Crosby Hill. Robby knew that none of his friends would want to miss a turn by lending him their snowboards, especially with the snow due to melt in a couple of hours.

Robby slumped down on the front steps and watched the garbage truck drive up the street. When it stopped in front of his house, the garbageman hopped off the truck, yanked the lid off the garbage can, and dumped the trash in the truck. Robby's eyes stayed glued to the curved plastic of the trash lid as it spun to a stop on the snowy curb. It would make a fine saucer sled for a steep slope like Crosby Hill.

Robby wasn't going to let his brother make him miss out on the fun! He snatched up the lid in his mittened hand and rushed across town to Crosby Hill.



Name \_\_\_\_\_ Date \_\_\_\_\_

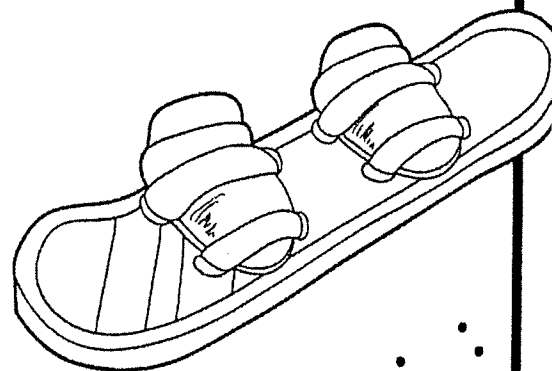
# Snowboarding Dilemma

1. Why does Kyle tell Robby to hurry?

2. What information does the text provide about Robby's brother?

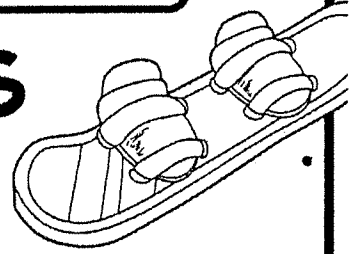
3. Besides the topic of snowboarding, what clues in the text show that it's winter?

4. What does Robby decide to use for a snowboard?



Name \_\_\_\_\_ Date \_\_\_\_\_

# Summarizing Stories



Complete the graphic organizer and then use your notes to summarize the story.

<b>SOMEBODY</b>	Who was the main character?	
<b>WANTED</b>	What did the main character want?	
<b>BUT</b>	What was the problem or challenge?	
<b>SO</b>	How did the main character try to solve the problem?	
<b>THEN</b>	What was the resolution to the story?	

## SUMMARY

# TO THE MOON...

It's been 50 years since people last set foot on the moon. Astronauts are preparing to return.

## STORY BY JIM BROWN

What is the purpose of sending people to the moon?

The mission was a huge success. Astronauts

Eugene Cernan and Harrison Schmitt explored the moon, collecting more than 240 pounds of rocks and soil.

They drove around the bumpy surface on a dune buggy called the Lunar Roving Vehicle. And they took thousands of photos for scientists to study. On December 14, 1972, they climbed into their

space capsule and lifted off. Soon the men would rocket back to Earth.

It was the last time anyone set foot on the lunar surface.

Fifty years later, NASA is gearing up to go back. The U.S. space agency plans to send people to the moon in 2025.

The program, called Artemis, is already underway. In November, an uncrewed test flight blasted off to orbit the moon.

"It's really exciting," says Rachel Kraft, who works at NASA. "Our goal is to understand what it takes to live and work on another celestial body."

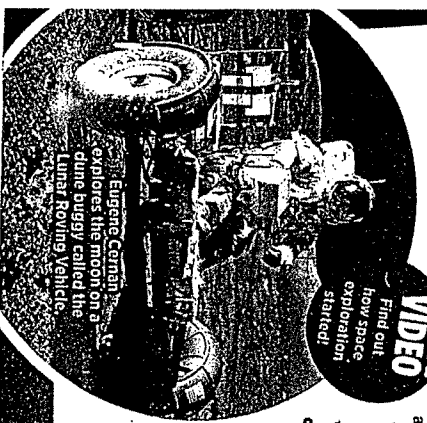
**NEW RESEARCH**  
From 1969 to 1972, 12 astronauts touched down on the moon's dusty surface. They were part of NASA's Apollo

program, created to send the first humans to the moon. The U.S. is the only nation to have sent people to the lunar surface.

At first, many Americans were fascinated by the moon landings. But by the final Apollo mission, interest had largely faded. Some people thought the program, which cost about \$25 billion, was too expensive.

In the following decades, NASA turned its attention elsewhere. U.S. astronauts have lived and worked on the International Space Station since 2000. Scientists from other countries also work in the space laboratory. Plus, NASA has sent robots called rovers to Mars and spacecraft to other distant places.

**WHERE DO HUMANS GO?**  
Why send humans back to the moon now? One reason is to help NASA prepare for its next big goal: sending people to Mars in the 2040s. The moon is



Eugene Cernan explores the moon on a dune buggy called the Lunar Roving Vehicle.

### Watch a VIDEO

Find out how space exploration started!

program, created to send the first humans to the moon. The U.S. is the only nation to have sent people to the lunar surface. At first, many Americans were fascinated by the moon landings. But by the final Apollo mission, interest had largely faded. Some people thought the program, which cost about \$25 billion, was too expensive. In the following decades, NASA turned its attention elsewhere. U.S. astronauts have lived and worked on the International Space Station since 2000. Scientists from other countries also work in the space laboratory. Plus, NASA has sent robots called rovers to Mars and spacecraft to other distant places.

Cover: Shutterstock.com (left image)

Apollo 17 Crew, NASA (Image background); NASA (Dark Corner Image); Space Shuttle Crew, NASA (Image); Gary (Image); Mission Picture (Image); Lunar Roving Vehicle (Image); Apollo 17 Lunar Roving Vehicle (Image); Eugene Cernan (Image); Harrison Schmitt (Image); Apollo 17 Crew, NASA (Image background); NASA (Dark Corner Image); Space Shuttle Crew, NASA (Image); Gary (Image); Mission Picture (Image); Lunar Roving Vehicle (Image); Apollo 17 Lunar Roving Vehicle (Image); Eugene Cernan (Image); Harrison Schmitt (Image)

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# ...AND BACK!



much closer to Earth than Mars is. That makes it the perfect testing ground for sending astronauts deeper into space. Scientists are designing a space station called Gateway to orbit the moon. It will act as a base and docking station for spacecraft on the way to and from deep space.

Cernan and Schmitt spent about three days on the moon, but Artemis astronauts plan to explore it for twice as long. They'll visit the moon's south pole, one of the coldest areas in our solar system.

Experts hope Artemis will encourage kids to become astronauts and scientists—just as the Apollo missions did. "We hope to inspire a whole new generation," Kraft says.

—by Rebecca Zissou

### WORDS TO KNOW

**lunar adjective:** having to do with the moon  
**celestial adjective:** having to do with the sky

## LOOK AT THE MOON

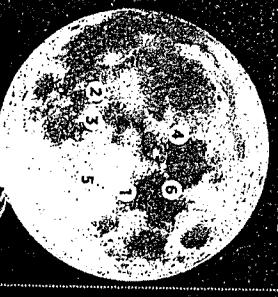
The U.S. has landed astronauts on the moon six times.

1. Apollo 11: July 1969
2. Apollo 12: November 1969
3. Apollo 14: February 1971
4. Apollo 15: July 1971
5. Apollo 16: April 1972
6. Apollo 17: December 1972

It takes astronauts about 3 DAYS TO REACH THE MOON. A journey to MARS WOULD TAKE ABOUT 9 MONTHS.

The moon is about a QUARTER the size of Earth.

There is no wind or rain on the moon, so the FOOTPRINTS left by astronauts may be there for millions of years.



Artemis astronauts will land around here. Humans have never visited the moon's south pole.

High temperature  
**250 DEGREES FAHRENHEIT**  
On average, the moon is **238,858 MILES** from Earth.

Low temperature  
**-410 DEGREES FAHRENHEIT**  
On average, Mars is **140,800,000 MILES** from Earth.



# HISTORY MAKERS

# KATHERINE



Her math skills helped launch astronauts into the history books.

In 1962, John Glenn was preparing to make a historic spaceflight. But the astronaut didn't trust NASA's computers to get him to space and back safely. Computers were fairly new. One error could mean the difference between life and death. Glenn trusted only one person's calculations.

Katherine Johnson was one of the most skilled mathematicians at NASA. She helped Glenn become the first American to orbit Earth. During her 33 years at NASA, Johnson made some of the most historic missions in space exploration possible.

### WORDS TO KNOW

**segregation noun**, the separation of people based on race  
**trajectory noun**, the path along which an object travels through air or space

# COUNT HER IN

Here are some important moments in Johnson's life.

**1929** At just 10 years old, Johnson starts high school. She graduates from college when she is 18—the age at which most people start college.



# HERINE JOHNSON

### Counting Stars

Johnson was born in West Virginia in 1918. From a very young age, she had a curious mind. She constantly asked questions and wanted to know how things worked.

"She loved math from the time she was born," says Margot Lee Shetterly. Her book *Hidden Figures* highlights Black female mathematicians at NASA. "She counted everything—houses, stairs, dishes, the stars in the sky."

Johnson was so smart that she skipped several grades. In 1937, she graduated from college with a degree in math. At the time, less than 5 percent of women earned college degrees. Johnson went into teaching, one of the few careers open to women.

### NASA's Best

In 1953, Johnson got an opportunity that would change her life and the lives of others. She started working at the Langley Research Center, which later became part of NASA.



Johnson was a "human computer." She and other female mathematicians solved the difficult math equations needed to design, test, and fly planes—and later, rockets. But Johnson faced many challenges. Back then, segregation was legal. Johnson was kept separate from White women who did the same job. Plus, women were paid less than men for similar work. Still, Johnson rose to the top. Before working with Glenn, she helped calculate the trajectory

for America's first human spaceflight, in 1961.

But she was proud of her role in the Apollo 11 mission in 1969. She helped get astronauts Neil Armstrong and Buzz Aldrin home safely from the moon. Johnson's team determined the best way to reconnect their spacecraft to the shuttle that would bring it back to Earth.

### An Inspiration for All

In 2016, a film version of Shetterly's book was released. It wasn't until then that Johnson gained worldwide recognition. NASA later named two buildings after Johnson, who died in 2020 at 101 years old. "She would say 'I loved every single day of my job at NASA,'" Shetterly says.

—by Alicia Green

### 1953

Johnson begins her work as a "human computer." These women use pencils, simple adding machines, and their smarts to make important calculations.



### 2015

President Barack Obama awards Johnson the Presidential Medal of Freedom, America's highest civilian honor.



# OUT OF THIS WORLD

Humans have been traveling to space for more than six decades. Here are some key milestones.

**1961** Yuri Gagarin of the Soviet Union becomes the first person in space. American Alan Shepard follows less than a month later.

**1997** NASA's Sojourner rover lands on Mars. It's the first wheeled vehicle to explore the Red Planet.

**2000** The first crew arrives to live and work on the International Space Station. Different crews have lived there ever since.



1968

1978

1988

1998

2008

**1969** Neil Armstrong walks on the moon during the Apollo 11 mission. He's the first person to do so.

**1983** Sally Ride travels aboard the space shuttle *Challenger*, becoming the first American woman in space.



Source: NASA

- According to the timeline, which is true?
  - The first person in space was American.
  - Humans first landed on the moon in 1961.
  - Sally Ride was the first American woman in space.
  - Humans first landed on Mars in 1983.
- Which happened about 54 years ago?
  - Neil Armstrong walked on the moon.
  - Yuri Gagarin went to space.
  - The Sojourner rover landed on Mars.
  - The first crew arrived at the International Space Station.

## KNOW THE NEWS

PAGES 2-3

### To the Moon . . . and Back!

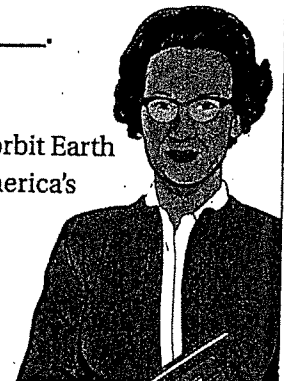
- Which best describes the article's main idea?
  - "The mission was a huge success."
  - "They took thousands of photos."
  - "The U.S. space agency plans to send people to the moon in 2025."
  - "NASA has sent robots called rovers to Mars."
- Which of these statements is an opinion?
  - Twelve astronauts have walked on the moon.
  - The Apollo program wasn't worth the cost.
  - People haven't been to the moon since 1972.
  - After sending humans back to the moon, NASA's next big goal is to land people on Mars.
- According to the sidebar, about how long does it take astronauts to reach the moon?
  - three days
  - two weeks
  - four months
  - nine months

### History Makers: Katherine Johnson

- Another title for this article could be \_\_\_\_\_.
  - "Space Firsts"
  - "All About Astronauts"
  - "The Math Whiz"
  - "A Visit to Outer Space"
- Which detail best supports the idea that Johnson had a "curious mind"?
  - "Computers were fairly new."
  - "She constantly asked questions."
  - "She skipped several grades."
  - "Johnson went into teaching."
- Johnson helped John Glenn \_\_\_\_\_.
  - return safely from the moon
  - design and test a rocket
  - become the first American to orbit Earth
  - calculate the trajectory for America's first spaceflight

PAGES 4-5

Illustration by Chris Dreyer (Johnson); Space Embassy/Hulton-Getty Images; Debra Miller; Bettmann Archive/Getty Images (all other images)



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**Two Minute Timing # 3** (Do this weekly to see your progress)

$1)\overline{8}$     $3)\overline{27}$     $6)\overline{5}$     $8)\overline{4}$     $9)\overline{72}$     $6)\overline{54}$     $6)\overline{18}$     $9)\overline{45}$     $9)\overline{18}$     $6)\overline{36}$

$8)\overline{8}$     $6)\overline{1}$     $4)\overline{12}$     $7)\overline{21}$     $8)\overline{4}$     $5)\overline{15}$     $8)\overline{24}$     $1)\overline{9}$     $2)\overline{2}$     $1)\overline{3}$

$2)\overline{6}$     $4)\overline{24}$     $5)\overline{35}$     $7)\overline{56}$     $2)\overline{4}$     $3)\overline{6}$     $6)\overline{42}$     $5)\overline{10}$     $4)\overline{8}$     $2)\overline{10}$

$4)\overline{16}$     $2)\overline{16}$     $9)\overline{54}$     $1)\overline{7}$     $8)\overline{16}$     $5)\overline{5}$     $2)\overline{18}$     $2)\overline{14}$     $6)\overline{30}$     $2)\overline{8}$

$8)\overline{72}$     $9)\overline{1}$     $3)\overline{9}$     $9)\overline{27}$     $4)\overline{2}$     $5)\overline{45}$     $5)\overline{25}$     $4)\overline{36}$     $9)\overline{36}$     $9)\overline{63}$

$1)\overline{4}$     $3)\overline{24}$     $8)\overline{64}$     $3)\overline{15}$     $3)\overline{12}$     $7)\overline{49}$     $9)\overline{9}$     $3)\overline{21}$     $9)\overline{81}$     $3)\overline{18}$

$8)\overline{32}$     $7)\overline{63}$     $1)\overline{6}$     $6)\overline{12}$     $8)\overline{48}$     $5)\overline{40}$     $5)\overline{30}$     $7)\overline{14}$     $5)\overline{20}$     $7)\overline{28}$

$4)\overline{20}$     $4)\overline{32}$     $8)\overline{40}$     $7)\overline{35}$     $8)\overline{56}$     $7)\overline{42}$     $4)\overline{28}$     $6)\overline{48}$     $6)\overline{24}$     $2)\overline{16}$

Goal \_\_\_\_\_      Number of problems correct \_\_\_\_\_



# Multiplication (2x2 Digits)

C

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. Multiply.

$$\begin{array}{r} 85 \\ \times 25 \\ \hline \end{array}$$

\_\_\_\_\_

2. Find the product.

$$\begin{array}{r} 23 \\ \times 12 \\ \hline \end{array}$$

\_\_\_\_\_

3. Solve.

$$\begin{array}{r} 47 \\ \times 68 \\ \hline \end{array}$$

\_\_\_\_\_

4. Multiply.

$$\begin{array}{r} 92 \\ \times 81 \\ \hline \end{array}$$

\_\_\_\_\_

5. Ty makes birdhouses to sell in his shop. If he sells 15 birdhouses each week for 36 weeks, how many birdhouses will he sell?

\_\_\_\_\_

6. If Ty sells his birdhouses for \$25 each, how much money will he make from selling 87 houses?

\_\_\_\_\_

Name \_\_\_\_\_

## Long Division Error Analysis #2

Jacob and Ethan are working on their homework and discover they disagree on the last problem's answer. Each boy thinks he is right. Who is correct?

Jacob's Problem

$$\begin{array}{r} 45 \\ 8 \overline{) 3240} \\ \underline{- 32} \phantom{0} \\ 040 \\ \underline{- 40} \\ 0 \end{array}$$

Correct or Incorrect?

Ethan's Problem

$$\begin{array}{r} 450 \\ 8 \overline{) 3240} \\ \underline{- 32} \phantom{0} \\ 040 \\ \underline{- 40} \\ 0 \end{array}$$

Correct or Incorrect?

1) Did Jacob or Ethan get the correct answer? Explain.

2) Circle any mistakes you found in the problems. Explain what mistakes were made.

3) What advice would you give the students, so they do not make these mistakes again?

# The Science of GOALKEEPING

With 250 million players, soccer is the most popular sport in the world. Check out the science behind it!

By Maggie Head

**1** A soccer kick starts when a player brings their leg back. The leg and foot are full of potential energy.

**2** The leg swings into the ball, striking it at up to 45 miles per hour! Kinetic energy transfers from the foot to the ball.

**3** The force of the kick squeezes the ball together. Then it expands, giving it a boost of energy. The ball zooms off the foot at up to 60 miles per hour!

## Nice Kick!

In soccer, teams of 11 players compete to get the ball into their opponents' net. Except for the goalie, who guards their team's goal, players can't use their hands. The main way players move the ball is by kicking it with their feet. They kick the ball differently if they're running with the ball, passing it, or shooting it. For most kicks, players strike the ball with the inside of their foot rather than with their toe. Using this larger surface gives players more control over the direction the ball moves. Players can also control how much energy they move to the ball. They can softly tap the ball or send it speeding off their foot to their teammates—or straight into the goal!

## Look for These STEM Words!

- potential energy: stored energy due to an object's position
- kinetic energy: the energy of an object in motion
- forces: a push or a pull on an object



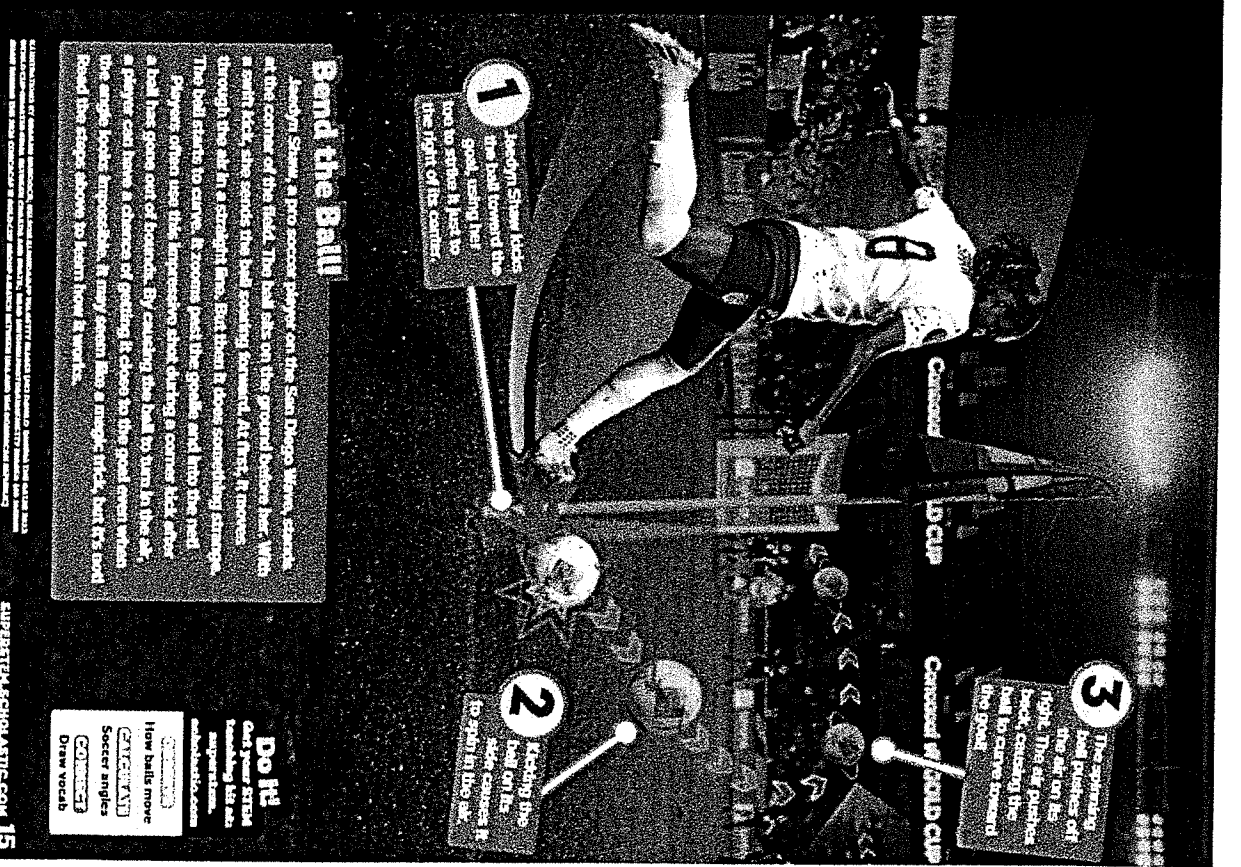
**3** This small movement gives the ball energy and pushes it in a new direction.

**2** Just as the ball strikes da Silva's head, he pushes the ball into the neck, pushing his neck.

**1** Brad's Donib Luiz da Silva uses his legs to push down. The ground pushes back. He jumps up, positioning his head in the ball's path.

**Use Your Head**

Soccer players mostly move the ball with their feet. But when the ball is kicked high into the air, they often use a different body part to change its direction—their head. A short or pass made with the head is called a header. During a header, the ball can strike a player's head with up to 300 pounds (136 kilograms) of force! Hits to the head can cause the brain to bounce back and forth inside the skull, leading to serious injury. That's why experts recommend players younger than 17 avoid headers completely. For older players, it's important to use proper form during a header. That means flexing their neck muscles and moving their head forward the ball. This causes their brain to bounce less inside their skull and helps prevent injury.



**3** The opening leg pushes off the air, on its back, causing the ball to curve toward the goal.

**2** Kicking the ball off its side causes it to spin in the air.

**1** Jordyn Shaw kicks the ball toward the goal, using her leg to strike it just to the right of its center.

**Bend the Ball**

Jordyn Shaw, a pro soccer player on the San Diego Wave, stands at the corner of the field. The ball sits on the ground between her and a goal. She sends the ball soaring forward. At first, it moves through the air in a straight line. But then it does something strange. The ball starts to curve. It seems just the goal and into the net. Players often use this impressive trick during a corner kick when a ball has gone out of bounds. By causing the ball to turn in the air, a player can have a chance of getting it close to the goal even when the angle looks impossible. It may seem like a magic trick, but it's not! Read the steps above to learn how it works.

**Do It!**

Get your STEM thinking skills sharpened. Use our **STEM** activities and **STEM** projects to learn more about the world around you.

**How balls move**  
**STEM**  
**STEM**  
**STEM**  
**STEM**  
**STEM**