

# **Grade 6**

# **Assignment Bundle**

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

## Simone Biles

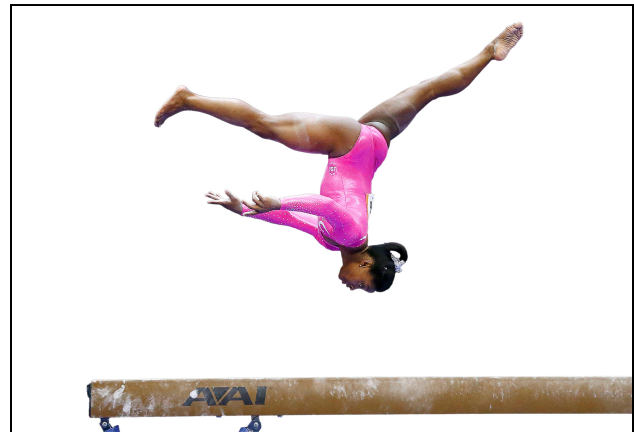
*This gymnast lets her power and personality shine.*

By Marty Kaminsky  
2016

*Simone Biles is an American gymnast who competed in the 2016 Summer Olympics. In this informational text, Marty Kaminsky discusses Biles' life and success in gymnastics. As you read, take notes on how Biles became an Olympic gymnast.*

- [1] The crowd stirs as 16-year-old gymnast Simone Biles mounts the balance beam at the 2013 World Artistic Gymnastics Championships in Belgium.

The beam is 4 feet high, 16 feet 5 inches long, and only 4 inches wide. Walking across its surface would be a challenge for most people, but Simone must do far more than that to earn a gold medal. During her 90-second performance, Simone must leap high in the air, spin completely around on one foot, and execute handsprings<sup>1</sup> and flips without falling off the beam or landing awkwardly.



*"Simone Biles" by Courtesy of iStock/mustafahacalaki and iStock/KrizzDaPaul is used with permission.*

To start her routine, the 4-foot-8-inch athlete pirouettes<sup>2</sup> on one foot two and a half times, then pulls off a flawless split leap. The audience gasps with each move, but Simone is calm as she dances on the beam. She completes her routine with a full twisting double back.<sup>3</sup> After flying high through the air, Simone lands on her feet, and the crowd roars.

The judges are impressed, too, rewarding Simone with her first All-Around<sup>4</sup> title.

## Making Her Mark

- [5] Since then, Simone has taken the gymnastics world by storm. She is the first female to win three straight All-Around World Championships, earning a total of 14 medals, 10 of them gold.

At the 2016 Olympics in Rio de Janeiro, Brazil, Simone added five medals to her total: golds in team, individual all-around, vault, and floor exercise, and bronze on beam.

1. a jump through the air onto one's hands, followed by springing over onto one's feet
2. a spin
3. a jump from a backwards position into a back flip in a stretched out position with a full 360 degree rotation that occurs during the flip, followed by a second back flip
4. "all-around" refers to a gymnast who competes in every gymnast event

## Talent at a Young Age

Life was not always easy for Simone. Her birth mother was unable to care for her children. Simone's grandparents, Ron and Nellie Biles, adopted Simone and her younger sister, Adria. Their new dad and mom moved the girls from Ohio to their home in Texas.

Simone loved to climb their five-foot-high mailbox and somersault to the ground. On a field trip with her daycare class, six-year-old Simone was introduced to her sport at Bannon's Gymnastix. In no time flat,<sup>5</sup> she started copying the gymnasts, drawing the attention of the instructors.

"I loved the idea of flipping around, and the center saw something in me, so they sent home a letter to my parents encouraging me to join," Simone explains. "Right from the start, I was fearless and willing to try anything and everything."

- [10] Simone advanced quickly. At age seven, she began performing competitively. In 2011, she placed first on vault and balance beam at the American Classic. Her debut<sup>6</sup> as an international gymnast was in March 2013 at a World Cup event.

## Bubbly and Genuine

Simone is known for her power and upbeat personality. She often plays to the crowd, flashing a big smile as she performs in the floor exercise.

In order to master the variety of skills needed to excel<sup>7</sup> at the four events in her sport, Simone trains five to six hours a day, year-round.

Simone's coach, Aimee Boorman, appreciates her hard work and personality. "Simone is bubbly. She loves to laugh, is genuine and real. When she wins and is given flowers on the medal podium, she searches out the shyest child in the crowd and gives her the flowers."

How does Simone handle the pressures of life as an athlete? "It is important to embrace the moment," she says. "Remember to have as much fun as you can, but keep in mind, win or lose, you still have your whole life ahead. You can achieve anything that you put your mind to."

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5. a phrase meaning "very quickly"  
6. a person's first appearance or performance in a role  
7. **Excel (verb):** to pass others in skill

## Text-Dependent Questions

**Directions:** For the following questions, choose the best answer or respond in complete sentences.

1. PART A: Which statement best expresses the central idea of the text?
  - A. Simone Biles' positive attitude has come from her success in gymnastics and relatively easygoing life.
  - B. From a young age, Simone Biles was a natural gymnast and often didn't have to train for competitions.
  - C. Simone Biles' great attitude and commitment to the sport has helped her succeed in gymnastics.
  - D. Competitors are often frightened of Simone Biles because of her skills and serious attitude.
  
2. PART B: Which TWO details from the text best support the answer to Part A?
  - A. "She completes her routine with a full twisting double back. After flying high through the air, Simone lands on her feet, and the crowd roars." (Paragraph 3)
  - B. "Life was not always easy for Simone. Her birth mother was unable to care for her children." (Paragraph 7)
  - C. "On a field trip with her daycare class, six-year-old Simone was introduced to her sport at Bannon's Gymnastix." (Paragraph 8)
  - D. "'I loved the idea of flipping around, and the center saw something in me, so they sent home a letter to my parents encouraging me to join'" (Paragraph 9)
  - E. "In order to master the variety of skills needed to excel at the four events in her sport, Simone trains five to six hours a day, year-round." (Paragraph 12)
  - F. "'Remember to have as much fun as you can, but keep in mind, win or lose, you still have your whole life ahead. You can achieve anything that you put your mind to.'" (Paragraph 14)
  
3. Which of the following describes how the author introduces Simone Biles?
  - A. as a talented gymnast who impresses the crowd and judges
  - B. as a committed athlete who works nonstop for what she has
  - C. as a talented gymnast who isn't treated fairly by the judges
  - D. as a serious athlete who values winning over all else
  
4. How do paragraphs 5-6 contribute to the development of ideas in the text?
  - A. They show how long Simone Biles has been competing in gymnastics.
  - B. They help readers understand how hard Simone Biles has worked.
  - C. They stress that sometimes even Simone Biles doesn't win gold.
  - D. They emphasize Simone Biles' widespread success in gymnastics.

5. Which of the following describes the connection between Biles' training and her success?

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## Discussion Questions

**Directions: Brainstorm your answers to the following questions in the space provided. Be prepared to share your original ideas in a class discussion.**

1. In the text, the author describes Simone Biles as committed to gymnastics. What is something that you're committed to? How did you discover your love for this activity? What do you do to improve at it?
2. Simone Biles has won various gold medals at the All-Around World Championships and the 2016 Summer Olympics. What do you think contributed to her success? What traits do you think are the most important to success?
3. Simone Biles loves gymnastics but tries to live in the moment, win or lose. Do you think this is why Biles portrays happiness and seems upbeat to her audience? How can you incorporate this mindset into something you love so that it shows?

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

## Most Valuable Player

By Sarah Van Arsdale  
1988

*Sarah Van Arsdale is an author, poet, and professor. In this poem, a speaker describes her goals. As you read, make note of the speaker's goals and aspirations.*

- [1] If I had a trophy  
I'd put it on the middle shelf  
of my bookcase. I'd dust  
it every day  
[5] and polish it once a week.
- It would have a statue of a woman  
holding a bat, her golden arm  
cocked up<sup>1</sup> a little  
waiting for the pitch.
- [10] When my friends came over  
I'd stand next to the bookcase casual-like  
till they said, "Is that a trophy?"  
I'd read the inscription<sup>2</sup> every morning.  
I'd ask someone to take my picture  
[15] with my trophy.
- My trophy would say  
"Softball Player" on the bottom,  
and everyone would know  
that in summer I tie on my cleats  
[20] run onto the field,  
slapping high fives.  
They'd know I take third base,  
put my glove to the dry dirt,  
scatter dust in the air.  
[25] They'd hear the fans shout,



*"College Softball" by David Moore is licensed under CC BY-NC-ND 2.0.*

1. tilted up  
2. **Inscription (noun):** written or carved words on an object

"Hey, some catch!"

when the white ball comes slamming

into my glove,

and, "Watch out, she'll steal home,"

[30] as my cleats dig and dig.

They'd feel the weight of the little statue

And think, "I bet she's going out

With her team tonight,"

"I bet she could teach me how to throw,"

[35] "I bet she plays softball,"

and I do,

I do.

*"Most Valuable Player" by Sarah Van Arsdale. First published in Korone, vol. V, 1988. Copyright © 1988 by Sarah Van Arsdale. Used by permission of the author. All rights reserved.*



## Text-Dependent Questions

**Directions:** For the following questions, choose the best answer or respond in complete sentences.

1. PART A: Which of the following identifies the theme of the poem?
  - A. People want to be recognized.
  - B. Sometimes people don't mind when their skills go unrewarded.
  - C. The support of friends and family is important to succeed.
  - D. Rewards and trophies do not determine an individual's skill or success.
  
2. PART B: Which detail from the poem best supports the answer to Part A?
  - A. "I'd dust / it every day / and polish it once a week." (Lines 3-5)
  - B. "It would have a statue of a woman/ holding a bat" (Lines 6-7)
  - C. "I'd read the inscription every morning." (Line 13)
  - D. "They'd hear the fans shout / 'Hey, some catch!'" (Lines 25-26)
  
3. What does having a trophy mean to the speaker?
  - A. It's proof that she is the best softball player.
  - B. It shows that she's just as athletic as the boys.
  - C. It's an item to show off to her friends.
  - D. It represents being great at softball.
  
4. How does the 'If,...I would...' structure in the poem develop the speaker's perspective towards her goals?

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## Discussion Questions

**Directions: Brainstorm your answers to the following questions in the space provided. Be prepared to share your original ideas in a class discussion.**

1. What kinds of rewards have you hoped to earn? How have you imagined your hard work leading up to the moment you win an award, like the speaker of the poem?
2. How would the speaker of the poem answer the question 'Where does happiness come from?' What is your response to the same question?
3. Do you think the speaker of the poem really deserves a trophy? Why or why not?

## **Selecting Books for Your Child: Finding 'Just Right' Books**

By: Kathleen Rogers

How can parents help their children find books that are not "too hard" and not "too easy" but instead are "just right"? Here's some advice.

### **Five finger rule**

1. Choose a book that you think you will enjoy.
2. Read the second page.
3. Hold up a finger for each word you are not sure of, or do not know.
4. If there are five or more words you did not know, you should choose an easier book.
5. Still think it may not be too difficult? Use the five finger rule on two more pages.

### **Choose a book that is a good fit for you!**

Read two or three pages and ask yourself these questions:

#### **Will it be an easy, fun book to read?**

- Do I understand what I am reading?
- Do I know almost every word?
- When I read it aloud, can I read it smoothly?
- Do I think the topic will interest me?

If most of your answers were "yes", this will be an easy book to read independently by yourself.

#### **Will this book be too hard for me?**

- Are there five or more words on a page that I don't know, or am unsure of?
- Is this book confusing and hard to understand by myself?
- When I read it aloud, does it sound choppy and slow?

If most of your answers were "yes," this book is too hard. You should wait awhile before you read this book. Give the book another try later, or ask an adult to read the book to you.

### **Tips on reading with your child**

- When they can't read the word, say...
- Can you sound it out?
- Fingertap it.
- Can you think of the word or movement that helps you remember that vowel sound?
- What is the first and last sound? What word would make sense?
- Does it have a pattern that you have seen in other words? (ex-an, ack)
- How does the word begin?
- You said \_\_\_\_\_. Does that make sense?
- What word would make sense that would start with these sounds?
- Put your finger under the word as you say it.

### **When they want to read a book that is too hard, say...**

- Let's read it together.
- This is a book you will enjoy more if you save it until you are older — or later in the year.
- [Be honest!] When people read books that are too hard for them, they often skip important parts. You will have more fun with this book if you wait until you can read it easily.

# HERE'S THE IMPACT OF READING 20 MINUTES PER DAY!

A student who reads

20:00

minutes per day

will be exposed to  
**1.8 MILLION**  
words per year  
and scores in  
**90th PERCENTILE**  
on standardized tests

A student who reads

5:00

minutes per day

will be exposed to  
**282,000**  
words per year  
and scores in  
**50th PERCENTILE**  
on standardized tests

A student who reads

1:00

minute per day

will be exposed to  
**8,000**  
words per year  
and scores in  
**10th PERCENTILE**  
on standardized tests

Source: Nagy, Anderson and Herman, 1987

# Home Reading Log

Student Information	
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Student Name		Grade Level	
School Name		Teacher	

Log

[illegible]

## 6.NS Interpreting a Division Computation

### Task

Use the computation shown below to find the products.

$$\begin{array}{r} 189 \\ 16 \overline{) 3024} \\ \underline{16} \phantom{00} \\ 142 \phantom{0} \\ \underline{128} \phantom{0} \\ 144 \phantom{0} \\ \underline{144} \\ 0 \end{array}$$

- a.  $189 \times 16$
- b.  $80 \times 16$
- c.  $9 \times 16$

## 6.NS How many staples?

### Task



Can you find an inconsistency in the information on this box of staples? Explain.

A

Number Correct: \_\_\_\_\_

Write the Missing Factor

1.	$10 = 5 \times \underline{\hspace{1cm}}$	
2.	$10 = 2 \times \underline{\hspace{1cm}}$	
3.	$8 = 4 \times \underline{\hspace{1cm}}$	
4.	$9 = 3 \times \underline{\hspace{1cm}}$	
5.	$6 = 2 \times \underline{\hspace{1cm}}$	
6.	$6 = 3 \times \underline{\hspace{1cm}}$	
7.	$12 = 6 \times \underline{\hspace{1cm}}$	
8.	$12 = 3 \times \underline{\hspace{1cm}}$	
9.	$12 = 4 \times \underline{\hspace{1cm}}$	
10.	$12 = 2 \times 2 \times \underline{\hspace{1cm}}$	
11.	$12 = 3 \times 2 \times \underline{\hspace{1cm}}$	
12.	$20 = 5 \times 2 \times \underline{\hspace{1cm}}$	
13.	$20 = 5 \times 2 \times \underline{\hspace{1cm}}$	
14.	$16 = 8 \times \underline{\hspace{1cm}}$	
15.	$16 = 4 \times 2 \times \underline{\hspace{1cm}}$	
16.	$24 = 8 \times \underline{\hspace{1cm}}$	
17.	$24 = 4 \times 2 \times \underline{\hspace{1cm}}$	
18.	$24 = 4 \times \underline{\hspace{1cm}} \times 2$	
19.	$24 = 3 \times 2 \times \underline{\hspace{1cm}}$	
20.	$24 = 3 \times \underline{\hspace{1cm}} \times 2$	
21.	$6 \times 4 = 8 \times \underline{\hspace{1cm}}$	
22.	$6 \times 4 = 4 \times 2 \times \underline{\hspace{1cm}}$	

23.	$28 = 7 \times \underline{\hspace{1cm}}$	
24.	$28 = 2 \times 2 \times \underline{\hspace{1cm}}$	
25.	$28 = 2 \times \underline{\hspace{1cm}} \times 2$	
26.	$28 = \underline{\hspace{1cm}} \times 2 \times 2$	
27.	$36 = 3 \times 3 \times \underline{\hspace{1cm}}$	
28.	$9 \times 4 = 3 \times 3 \times \underline{\hspace{1cm}}$	
29.	$9 \times 4 = 6 \times \underline{\hspace{1cm}}$	
30.	$9 \times 4 = 3 \times 2 \times \underline{\hspace{1cm}}$	
31.	$8 \times 6 = 4 \times \underline{\hspace{1cm}} \times 2$	
32.	$9 \times 9 = 3 \times \underline{\hspace{1cm}} \times 3$	
33.	$8 \times 8 = \underline{\hspace{1cm}} \times 8$	
34.	$7 \times 7 = \underline{\hspace{1cm}} \times 7$	
35.	$8 \times 3 = \underline{\hspace{1cm}} \times 6$	
36.	$16 \times 2 = \underline{\hspace{1cm}} \times 4$	
37.	$2 \times 18 = \underline{\hspace{1cm}} \times 9$	
38.	$28 \times 2 = \underline{\hspace{1cm}} \times 8$	
39.	$24 \times 3 = \underline{\hspace{1cm}} \times 9$	
40.	$6 \times 8 = \underline{\hspace{1cm}} \times 12$	
41.	$27 \times 3 = \underline{\hspace{1cm}} \times 9$	
42.	$12 \times 6 = \underline{\hspace{1cm}} \times 8$	
43.	$54 \times 2 = \underline{\hspace{1cm}} \times 12$	
44.	$9 \times 13 = \underline{\hspace{1cm}} \times 39$	



## B

Number Correct: \_\_\_\_\_

Improvement: \_\_\_\_\_

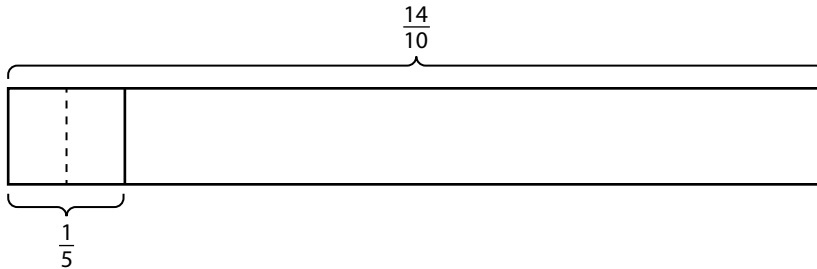
Write the Missing Factor

1.	$6 = 2 \times \underline{\hspace{1cm}}$	
2.	$6 = 3 \times \underline{\hspace{1cm}}$	
3.	$9 = 3 \times \underline{\hspace{1cm}}$	
4.	$8 = 4 \times \underline{\hspace{1cm}}$	
5.	$10 = 5 \times \underline{\hspace{1cm}}$	
6.	$10 = 2 \times \underline{\hspace{1cm}}$	
7.	$20 = 10 \times \underline{\hspace{1cm}}$	
8.	$20 = 5 \times 2 \times \underline{\hspace{1cm}}$	
9.	$12 = 6 \times \underline{\hspace{1cm}}$	
10.	$12 = 3 \times \underline{\hspace{1cm}}$	
11.	$12 = 4 \times \underline{\hspace{1cm}}$	
12.	$12 = 2 \times 2 \times \underline{\hspace{1cm}}$	
13.	$12 = 3 \times 2 \times \underline{\hspace{1cm}}$	
14.	$24 = 8 \times \underline{\hspace{1cm}}$	
15.	$24 = 4 \times 2 \times \underline{\hspace{1cm}}$	
16.	$24 = 4 \times \underline{\hspace{1cm}} \times 2$	
17.	$24 = 3 \times 2 \times \underline{\hspace{1cm}}$	
18.	$24 = 3 \times \underline{\hspace{1cm}} \times 2$	
19.	$16 = 8 \times \underline{\hspace{1cm}}$	
20.	$16 = 4 \times 2 \times \underline{\hspace{1cm}}$	
21.	$8 \times 2 = 4 \times \underline{\hspace{1cm}}$	
22.	$8 \times 2 = 2 \times 2 \times \underline{\hspace{1cm}}$	

23.	$28 = 4 \times \underline{\hspace{1cm}}$	
24.	$28 = 2 \times 2 \times \underline{\hspace{1cm}}$	
25.	$28 = 2 \times \underline{\hspace{1cm}} \times 2$	
26.	$28 = \underline{\hspace{1cm}} \times 2 \times 2$	
27.	$36 = 2 \times 2 \times \underline{\hspace{1cm}}$	
28.	$9 \times 4 = 2 \times 2 \times \underline{\hspace{1cm}}$	
29.	$9 \times 4 = 6 \times \underline{\hspace{1cm}}$	
30.	$9 \times 4 = 2 \times 3 \times \underline{\hspace{1cm}}$	
31.	$8 \times 6 = 4 \times \underline{\hspace{1cm}} \times 2$	
32.	$8 \times 8 = 4 \times \underline{\hspace{1cm}} \times 2$	
33.	$9 \times 9 = \underline{\hspace{1cm}} \times 9$	
34.	$6 \times 6 = \underline{\hspace{1cm}} \times 6$	
35.	$6 \times 4 = \underline{\hspace{1cm}} \times 8$	
36.	$16 \times 2 = \underline{\hspace{1cm}} \times 8$	
37.	$2 \times 18 = \underline{\hspace{1cm}} \times 4$	
38.	$28 \times 2 = \underline{\hspace{1cm}} \times 7$	
39.	$24 \times 3 = \underline{\hspace{1cm}} \times 8$	
40.	$8 \times 6 = \underline{\hspace{1cm}} \times 4$	
41.	$12 \times 6 = \underline{\hspace{1cm}} \times 9$	
42.	$27 \times 3 = \underline{\hspace{1cm}} \times 9$	
43.	$54 \times 2 = \underline{\hspace{1cm}} \times 9$	
44.	$8 \times 13 = \underline{\hspace{1cm}} \times 26$	

# Understanding Division with Fractions

- 1 Complete the bar model to show how many  $\frac{1}{5}$ s make  $\frac{14}{10}$ .

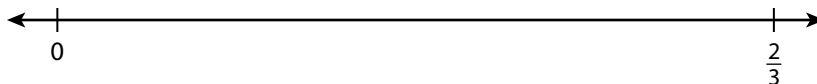


How many  $\frac{1}{5}$ s make  $\frac{14}{10}$ ? \_\_\_\_\_

Complete the equations.

$$\frac{14}{10} \div \underline{\hspace{2cm}} = 7 \qquad \underline{\hspace{2cm}} \cdot \frac{1}{5} = \frac{14}{10}$$

- 2 Use the number line to show  $\frac{2}{3} \div \frac{1}{12}$ .



What is the quotient? \_\_\_\_\_

- 3 Which type of model do you like better, the bar model or the number line? Explain.

A

Number Correct: \_\_\_\_\_

Find the Missing Numerator or Denominator

1.	$\frac{1}{2} = \frac{\quad}{4}$	
2.	$\frac{1}{5} = \frac{2}{\quad}$	
3.	$\frac{2}{5} = \frac{\quad}{10}$	
4.	$\frac{3}{5} = \frac{\quad}{10}$	
5.	$\frac{4}{5} = \frac{\quad}{10}$	
6.	$\frac{1}{3} = \frac{2}{\quad}$	
7.	$\frac{2}{3} = \frac{\quad}{6}$	
8.	$\frac{1}{3} = \frac{3}{\quad}$	
9.	$\frac{2}{3} = \frac{\quad}{9}$	
10.	$\frac{1}{4} = \frac{\quad}{8}$	
11.	$\frac{3}{4} = \frac{\quad}{8}$	
12.	$\frac{1}{4} = \frac{3}{\quad}$	
13.	$\frac{3}{4} = \frac{9}{\quad}$	
14.	$\frac{2}{4} = \frac{\quad}{2}$	
15.	$\frac{2}{6} = \frac{1}{\quad}$	
16.	$\frac{2}{10} = \frac{1}{\quad}$	
17.	$\frac{4}{10} = \frac{\quad}{5}$	
18.	$\frac{8}{10} = \frac{\quad}{5}$	
19.	$\frac{3}{9} = \frac{\quad}{3}$	
20.	$\frac{6}{9} = \frac{\quad}{3}$	
21.	$\frac{3}{12} = \frac{1}{\quad}$	
22.	$\frac{9}{12} = \frac{\quad}{4}$	

23.	$\frac{1}{3} = \frac{\quad}{12}$	
24.	$\frac{2}{3} = \frac{\quad}{12}$	
25.	$\frac{8}{12} = \frac{\quad}{3}$	
26.	$\frac{12}{16} = \frac{3}{\quad}$	
27.	$\frac{3}{5} = \frac{\quad}{25}$	
28.	$\frac{4}{5} = \frac{28}{\quad}$	
29.	$\frac{18}{24} = \frac{3}{\quad}$	
30.	$\frac{24}{30} = \frac{\quad}{5}$	
31.	$\frac{5}{6} = \frac{35}{\quad}$	
32.	$\frac{56}{63} = \frac{\quad}{9}$	
33.	$\frac{64}{72} = \frac{8}{\quad}$	
34.	$\frac{5}{8} = \frac{\quad}{64}$	
35.	$\frac{5}{6} = \frac{45}{\quad}$	
36.	$\frac{45}{81} = \frac{\quad}{9}$	
37.	$\frac{6}{7} = \frac{48}{\quad}$	
38.	$\frac{36}{81} = \frac{\quad}{9}$	
39.	$\frac{8}{56} = \frac{1}{\quad}$	
40.	$\frac{35}{63} = \frac{5}{\quad}$	
41.	$\frac{1}{6} = \frac{12}{\quad}$	
42.	$\frac{3}{7} = \frac{36}{\quad}$	
43.	$\frac{48}{60} = \frac{4}{\quad}$	
44.	$\frac{72}{84} = \frac{\quad}{7}$	

## B

Number Correct: \_\_\_\_\_

Improvement: \_\_\_\_\_

Find the Missing Numerator or Denominator

1.	$\frac{1}{5} = \frac{2}{\quad}$	
2.	$\frac{2}{5} = \frac{\quad}{10}$	
3.	$\frac{3}{5} = \frac{\quad}{10}$	
4.	$\frac{4}{5} = \frac{\quad}{10}$	
5.	$\frac{1}{3} = \frac{2}{\quad}$	
6.	$\frac{1}{3} = \frac{\quad}{6}$	
7.	$\frac{2}{3} = \frac{4}{\quad}$	
8.	$\frac{1}{3} = \frac{\quad}{9}$	
9.	$\frac{2}{3} = \frac{6}{\quad}$	
10.	$\frac{1}{4} = \frac{2}{\quad}$	
11.	$\frac{3}{4} = \frac{6}{\quad}$	
12.	$\frac{1}{4} = \frac{\quad}{12}$	
13.	$\frac{3}{4} = \frac{\quad}{12}$	
14.	$\frac{2}{4} = \frac{1}{\quad}$	
15.	$\frac{2}{6} = \frac{\quad}{3}$	
16.	$\frac{2}{10} = \frac{\quad}{5}$	
17.	$\frac{4}{10} = \frac{2}{\quad}$	
18.	$\frac{8}{10} = \frac{4}{\quad}$	
19.	$\frac{3}{9} = \frac{1}{\quad}$	
20.	$\frac{6}{9} = \frac{2}{\quad}$	
21.	$\frac{1}{4} = \frac{\quad}{12}$	
22.	$\frac{9}{12} = \frac{3}{\quad}$	

23.	$\frac{1}{3} = \frac{4}{\quad}$	
24.	$\frac{2}{3} = \frac{8}{\quad}$	
25.	$\frac{8}{12} = \frac{2}{\quad}$	
26.	$\frac{12}{16} = \frac{\quad}{4}$	
27.	$\frac{3}{5} = \frac{15}{\quad}$	
28.	$\frac{4}{5} = \frac{\quad}{35}$	
29.	$\frac{18}{24} = \frac{\quad}{4}$	
30.	$\frac{24}{30} = \frac{4}{\quad}$	
31.	$\frac{5}{6} = \frac{\quad}{42}$	
32.	$\frac{56}{63} = \frac{8}{\quad}$	
33.	$\frac{64}{72} = \frac{\quad}{9}$	
34.	$\frac{5}{8} = \frac{40}{\quad}$	
35.	$\frac{5}{6} = \frac{\quad}{54}$	
36.	$\frac{45}{81} = \frac{5}{\quad}$	
37.	$\frac{6}{7} = \frac{\quad}{56}$	
38.	$\frac{36}{81} = \frac{4}{\quad}$	
39.	$\frac{8}{56} = \frac{\quad}{7}$	
40.	$\frac{35}{63} = \frac{\quad}{9}$	
41.	$\frac{1}{6} = \frac{\quad}{72}$	
42.	$\frac{3}{7} = \frac{\quad}{84}$	
43.	$\frac{48}{60} = \frac{\quad}{5}$	
44.	$\frac{72}{84} = \frac{6}{\quad}$	

# Using Multiplication to Divide by a Fraction

► Write the missing digits in the boxes to make each equation true.

$$1 \quad \frac{1}{2} \div \frac{2}{3} = \frac{1}{2} \times \frac{\boxed{\phantom{00}}}{2} = \frac{3}{\boxed{\phantom{00}}}$$

$$2 \quad \frac{4}{5} \div \frac{1}{4} = \frac{4}{5} \times \frac{4}{\boxed{\phantom{00}}} = \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}}$$

$$3 \quad \frac{2}{5} \div \frac{3}{4} = \frac{2}{5} \times \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}} = \frac{\boxed{\phantom{00}}}{15}$$

$$4 \quad \frac{5}{6} \div \frac{5}{12} = \frac{5}{6} \times \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}} = \frac{\boxed{\phantom{00}}}{30} = 2$$

$$5 \quad \frac{3}{4} \div \frac{5}{7} = \frac{3}{4} \times \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}} = \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}}$$

$$6 \quad 1\frac{1}{3} \div \frac{3}{7} = \frac{\boxed{\phantom{00}}}{3} \times \frac{7}{\boxed{\phantom{00}}} = \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}}$$

$$7 \quad 4\frac{\boxed{\phantom{00}}}{2} \div \frac{2}{5} = \frac{9}{2} \times \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}} = \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}}$$

$$8 \quad 3\frac{1}{2} \div \frac{\boxed{\phantom{00}}}{8} = \frac{7}{\boxed{\phantom{00}}} \times \frac{8}{7} = \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}} = \boxed{\phantom{00}}$$

$$9 \quad 1\frac{2}{3} \div 2\frac{1}{4} = \frac{\boxed{\phantom{00}}}{3} \times \frac{\boxed{\phantom{00}}}{9} = \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}}$$

$$10 \quad 3\frac{3}{5} \div 1\frac{3}{\boxed{\phantom{00}}} = \frac{18}{\boxed{\phantom{00}}} \times \frac{4}{7} = \frac{\boxed{\phantom{00}}}{\boxed{\phantom{00}}}$$

11 Write a word problem that could be solved by the equation in problem 8.

Number Correct: \_\_\_\_\_

## Multiplication of Fractions I—Round 1

**Directions:** Determine the product of the fractions.

1.	$\frac{1}{2} \times \frac{3}{4}$	
2.	$\frac{5}{6} \times \frac{5}{7}$	
3.	$\frac{3}{4} \times \frac{7}{8}$	
4.	$\frac{4}{5} \times \frac{8}{9}$	
5.	$\frac{1}{4} \times \frac{3}{7}$	
6.	$\frac{5}{7} \times \frac{4}{9}$	
7.	$\frac{3}{5} \times \frac{1}{8}$	
8.	$\frac{2}{9} \times \frac{7}{9}$	
9.	$\frac{1}{3} \times \frac{2}{5}$	
10.	$\frac{3}{7} \times \frac{5}{8}$	
11.	$\frac{2}{3} \times \frac{9}{10}$	
12.	$\frac{3}{5} \times \frac{1}{6}$	
13.	$\frac{2}{7} \times \frac{3}{4}$	
14.	$\frac{5}{8} \times \frac{3}{10}$	
15.	$\frac{4}{5} \times \frac{7}{8}$	

16.	$\frac{8}{9} \times \frac{3}{4}$	
17.	$\frac{3}{4} \times \frac{4}{7}$	
18.	$\frac{1}{4} \times \frac{8}{9}$	
19.	$\frac{3}{5} \times \frac{10}{11}$	
20.	$\frac{8}{13} \times \frac{7}{24}$	
21.	$2\frac{1}{2} \times 3\frac{3}{4}$	
22.	$1\frac{4}{5} \times 6\frac{1}{3}$	
23.	$8\frac{2}{7} \times 4\frac{5}{6}$	
24.	$5\frac{2}{5} \times 2\frac{1}{8}$	
25.	$4\frac{6}{7} \times 1\frac{1}{4}$	
26.	$2\frac{2}{3} \times 4\frac{2}{5}$	
27.	$6\frac{9}{10} \times 7\frac{1}{3}$	
28.	$1\frac{3}{8} \times 4\frac{2}{5}$	
29.	$3\frac{5}{6} \times 2\frac{4}{15}$	
30.	$4\frac{1}{3} \times 5$	

Number Correct: \_\_\_\_\_

Improvement: \_\_\_\_\_

## Multiplication of Fractions I—Round 2

Directions: Determine the product of the fractions.

1.	$\frac{5}{6} \times \frac{1}{4}$	
2.	$\frac{2}{3} \times \frac{5}{7}$	
3.	$\frac{1}{3} \times \frac{2}{5}$	
4.	$\frac{5}{7} \times \frac{5}{8}$	
5.	$\frac{3}{8} \times \frac{7}{9}$	
6.	$\frac{3}{4} \times \frac{5}{6}$	
7.	$\frac{2}{7} \times \frac{3}{8}$	
8.	$\frac{1}{4} \times \frac{3}{4}$	
9.	$\frac{5}{8} \times \frac{3}{10}$	
10.	$\frac{6}{11} \times \frac{1}{2}$	
11.	$\frac{6}{7} \times \frac{5}{8}$	
12.	$\frac{1}{6} \times \frac{9}{10}$	
13.	$\frac{3}{4} \times \frac{8}{9}$	
14.	$\frac{5}{6} \times \frac{2}{3}$	
15.	$\frac{1}{4} \times \frac{8}{11}$	

16.	$\frac{3}{7} \times \frac{2}{9}$	
17.	$\frac{4}{5} \times \frac{10}{13}$	
18.	$\frac{2}{9} \times \frac{3}{8}$	
19.	$\frac{1}{8} \times \frac{4}{5}$	
20.	$\frac{3}{7} \times \frac{2}{15}$	
21.	$1\frac{1}{2} \times 4\frac{3}{4}$	
22.	$2\frac{5}{6} \times 3\frac{3}{8}$	
23.	$1\frac{7}{8} \times 5\frac{1}{5}$	
24.	$6\frac{2}{3} \times 2\frac{3}{8}$	
25.	$7\frac{1}{2} \times 3\frac{6}{7}$	
26.	$3 \times 4\frac{1}{3}$	
27.	$2\frac{3}{5} \times 5\frac{1}{6}$	
28.	$4\frac{2}{5} \times 7$	
29.	$1\frac{4}{7} \times 2\frac{1}{2}$	
30.	$3\frac{5}{6} \times \frac{3}{10}$	

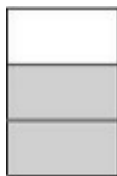
# 6.NS Cup of Rice

## Task

Tonya and Chrissy are trying to understand the following story problem for  $1 \div \frac{2}{3}$ :

*One serving of rice is  $\frac{2}{3}$  of a cup. I ate 1 cup of rice. How many servings of rice did I eat?*

To solve the problem, Tonya and Chrissy draw a diagram divided into three equal pieces, and shade two of those pieces.



Tonya says, "There is one  $\frac{2}{3}$ -cup serving of rice in 1 cup, and there is  $\frac{1}{3}$  cup of rice left over, so the answer should be  $1\frac{1}{3}$ ."

Chrissy says, "I heard someone say that the answer is  $\frac{3}{2} = 1\frac{1}{2}$ . Which answer is right?"

Is the answer  $1\frac{1}{3}$  or  $1\frac{1}{2}$ ? Explain your reasoning using the diagram.



6.NS Cup of Rice  
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## 6.NS Traffic Jam

### Task

You are stuck in a big traffic jam on the freeway and you are wondering how long it will take to get to the next exit, which is  $1\frac{1}{2}$  miles away. You are timing your progress and find that you can travel  $\frac{2}{3}$  of a mile in one hour. If you continue to make progress at this rate, how long will it be until you reach the exit? Solve the problem with a diagram and explain your answer.



6.NS Traffic Jam

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## 6.NS Dan's Division Strategy

### Task

Dan observes that

$$\frac{6}{10} \div \frac{2}{10} = 6 \div 2$$

He says,

*I think that if we are dividing a fraction by a fraction with the same denominator, then  
we can just divide the numerators.*

Is Dan's conjecture true for all fractions? Explain how you know.



6.NS Dan's Division Strategy  
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**6th Grade Science**  
**Assignment #1**

**Part I**

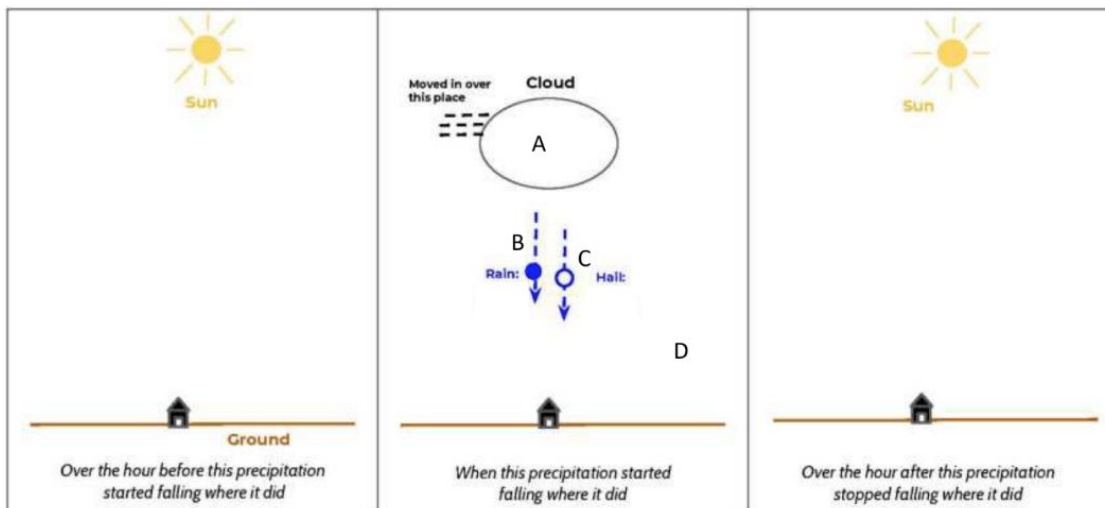
1. Watch the following videos to observe the phenomenon we will be exploring in this lesson.
  - a. April 7, 2013 - Kansas      <https://bit.ly/2UR9cdF>
  - b. October 5, 2010 - Arizona      <https://bit.ly/3aSZUn9>
  - c. June 10, 2013 - Canada      <https://bit.ly/3aUqmfZ>
2. Complete the *Notice and Wonder* chart below.
  - a. What do you notice in the videos? Write down as many observations as possible in the *Notice* column.
  - b. What do the videos make you wonder? Write down questions you have about what you observed in the *Wonder* column.

Notice	Wonder

3. Share your noticings and wonderings with a classmate or family member.

## Part 2

1. **Precipitation** is a way to refer to any liquid or solid forms of water that fall to the ground from above.
  - a. Watch a video (<https://bit.ly/2y22M2g>) reviewing states of matter at the particle level.
  - b. Use this model of the precipitation events observed in Part 1 to answer the discussion questions below.



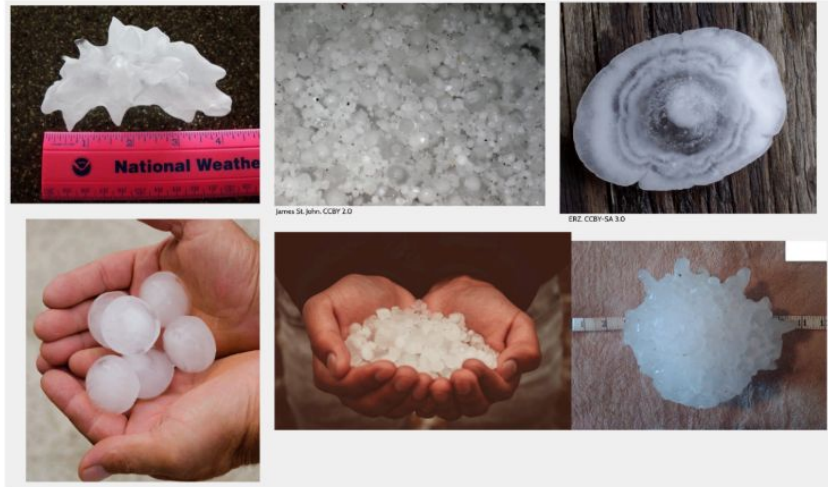
- i. Where do you think the cloud that appeared when the precipitation occurred came from?
- ii. Why would a cloud appear when precipitation occurs?
- iii. Imagine you had a microscope strong enough to see matter at the particle level. Draw what you think it looks like at the particle level for each labeled part of the model. (A: Inside cloud, B: Rain, C: Hail, D: Air)

A	B	C	D
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## Assignment #2

### Part I

1. Look at the images of different hailstones and write down what you notice and what questions the photos make you wonder about in the chart below.



Notice	Wonder

2. Considering your observations:
  - a. When do you think hail storms happen most frequently in the United States?
  - b. What do you think the weather conditions are like during a hail storm?

## Part 2

1. Look at the Weather Data handout for the Fort Scott hailstorm.
  - a. Based on Chart A, during what season(s) did most hailstorms occur? Does this support your prediction from Part 1?
  - b. What was the date and time for the hailstorm in Fort Scott, KS?
  - c. Using Chart B, what was the approximate temperature when the hailstorm occurred? Does this support your prediction from Part 1?
  - d. Using Chart B, what was happening with the wind around the time that the hailstorm occurred?
2. Look at data from the two hail storms that occurred in Phoenix, AZ on October 5.
  - a. Based on all the data you've reviewed so far,
    - i. How would you describe the typical temperature during a hailstorm?
    - ii. Relative humidity is the quantity of water in air compared to the utmost amount of water the air can take in. How would you describe the typical relative humidity during a hailstorm?
    - iii. How would you describe the wind during a hailstorm?

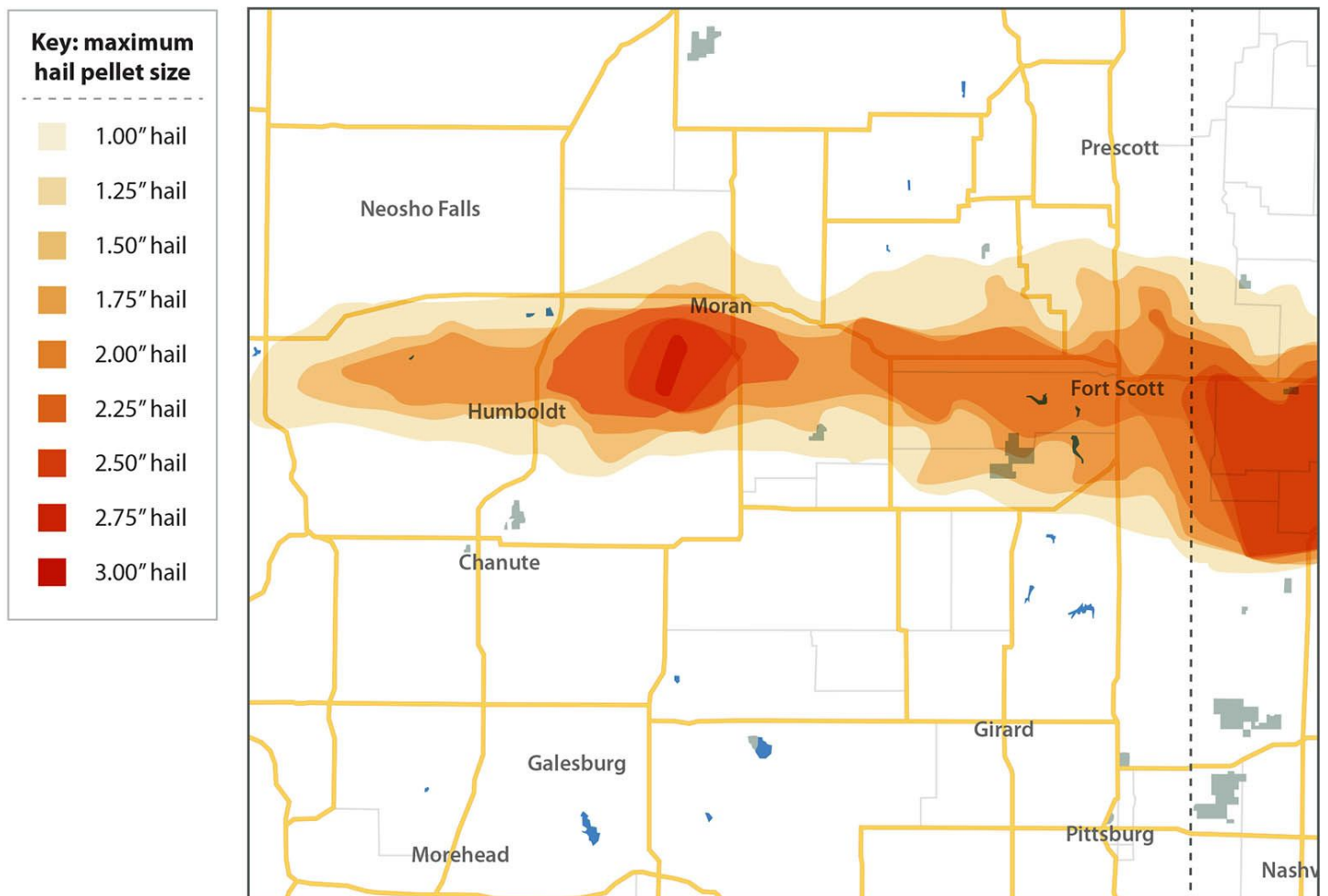
# Weather Data for Fort Scott\*

A

Site	Location	Date	Approximate time of day
*	Fort Scott, KS	April 7, 2013	4:25 PM
A	Phoenix, AZ	Oct. 5, 2010	12:30 and 4:30 PM
B	Oklahoma City, OK	April 26, 2013	8:30 PM
C	Dallas, TX	June 13, 2012	6:30 PM
D	Winnipeg, Manitoba, Canada	June 10, 2013	6:30 PM
E	New Orleans, LA	Feb. 24, 2013	9:15 PM
F	Indianapolis, IN	Aug. 25, 2018	5:30 PM
G	Pittsfield, MA	May 15, 2018	No record avail.



## Hail map



# Weather Data for Fort Scott, continued

Weather station: Chanute Martin Johnson Station, KS

**B**

Time	Temperature (°F)	Relative humidity (%)	Wind speed (mph)	Wind gust (mph)
5:52 AM	44	93	3	0
6:52 AM	46	89	0	0
7:52 AM	50	89	0	0
8:52 AM	55	83	5	0
9:52 AM	62	72	9	0
10:52 AM	64	75	8	0
11:52 AM	67	70	8	0
12:52 PM	70	63	13	17
1:52 PM	73	57	17	24
2:52 PM	70	65	15	20
3:52 PM	68	68	12	17
4:52 PM	59	78	30	37
4:59 PM	59	77	17	37
5:30 PM	63	72	6	0
5:52 PM	65	68	3	0
6:52 PM	64	75	6	0
7:35 PM	66	73	17	25
7:52 PM	63	84	17	28

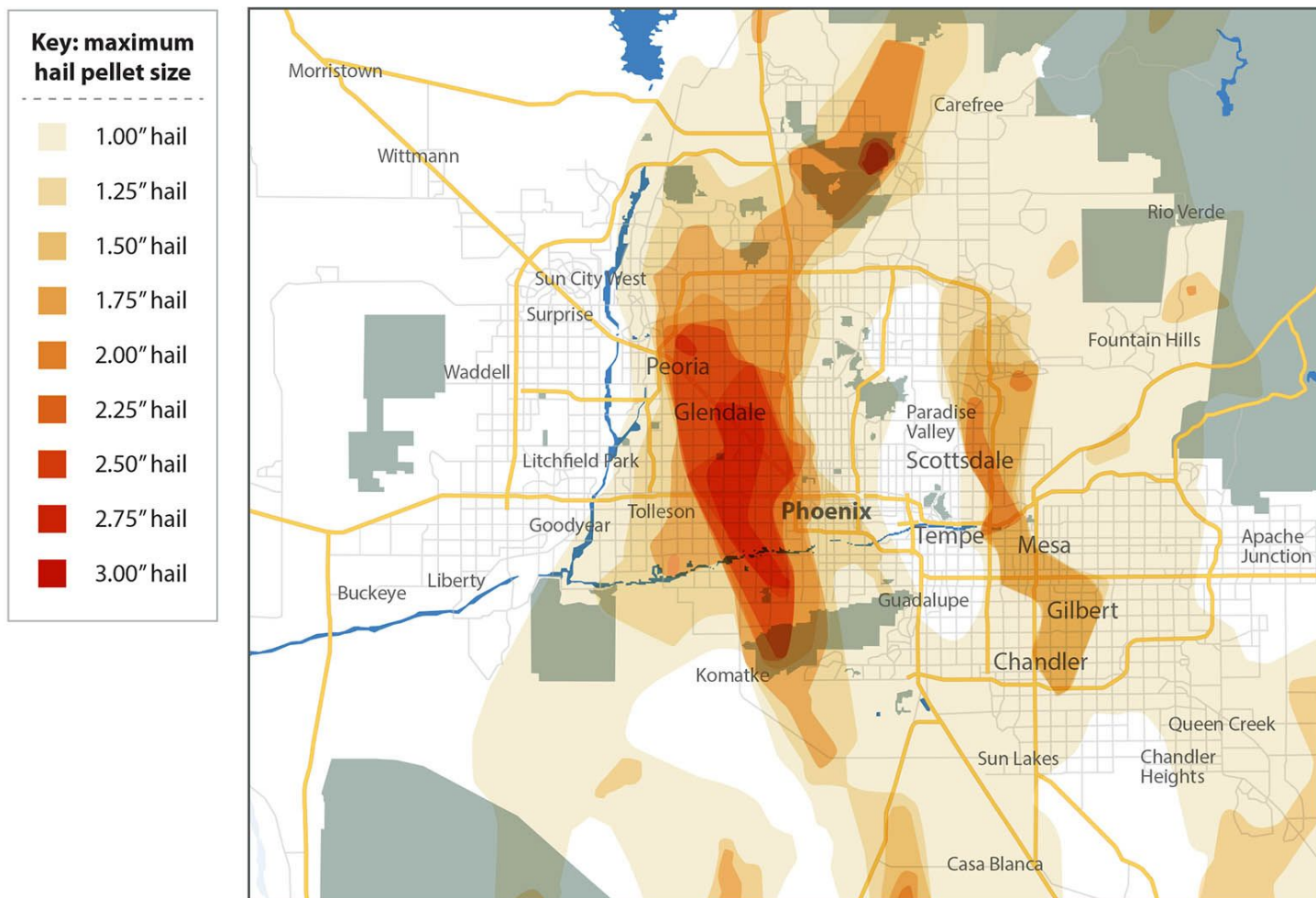


# Weather Data for Site A (Phoenix)

Site	Location	Date	Approximate time of day
*	Fort Scott, KS	April 7, 2013	4:25 PM
A	Phoenix, AZ	Oct. 5, 2010	12:30 and 4:30 PM
B	Oklahoma City, OK	April 26, 2013	8:30 PM
C	Dallas, TX	June 13, 2012	6:30 PM
D	Winnipeg, Manitoba, Canada	June 10, 2013	6:30 PM
E	New Orleans, LA	Feb. 24, 2013	9:15 PM
F	Indianapolis, IN	Aug. 25, 2018	5:30 PM
G	Pittsfield, MA	May 15, 2018	No record avail.



## Hail map



## Weather Data for Site A, continued

Weather station: Phoenix Sky Harbor International Station, AZ

Time	Temperature (°F)	Relative humidity (%)	Wind speed (mph)	Wind gust (mph)
6:51 AM	73	66	9	0
7:51 AM	73	64	10	0
8:51 AM	77	54	13	17
9:51 AM	78	52	15	0
10:51 AM	81	45	10	0
11:51 AM	86	38	13	21
12:06 PM	86	37	1	0
12:36 PM	81	45	17	37
12:38 PM	75	53	15	37
12:49 PM	73	57	6	0
12:51 PM	74	55	9	0
1:16 PM	72	60	8	0
1:40 PM	73	65	9	0
1:51 PM	75	57	12	0
2:11 PM	75	53	9	0
2:51 PM	79	48	6	0
3:24 PM	73	69	16	0
3:51 PM	71	78	7	0
4:13 PM	72	83	14	0
4:51 PM	68	94	3	25
5:04 PM	66	94	10	0
5:35 PM	66	94	7	0
5:51 PM	69	84	8	0
6:51 PM	70	84	8	0
7:51 PM	70	81	9	0

### Assignment #3

#### Part 1

1. Watch the video titled "Hail and Hailstones" (<https://bit.ly/3aTfqIL>).
2. Based on what you learned from the video, why do you think hail storms tend to happen when there are warmer temperatures even though they are made of ice?

#### Part 2

1. Read the article titled **"After a freak hailstorm turned a beach white, we look at what causes hail and if it's dangerous"**.
2. Draw a diagram that shows how hailstorms are formed. Include pictures, labels, and directional arrows.

3. Explain how the data you analyzed in Part 2 supports what you learned in the video and article. Why wouldn't you expect more hailstorms to happen during winter when cold temperatures are occurring?

## After a freak hailstorm turned a beach white, we look at what causes hail and if it's dangerous

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Toni Hetherington, May 12, 2019 6:45PM Kids News

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### EXPLAINERS

A freak\* and furious hailstorm has turned an Australian beach into a winter wonderland\*.

Heavy hail came down in the coastal town of Cape Paterson in Gippsland, Victoria on Friday and transformed the sandy shoreline into a sea of white. It also turned horse paddocks into icy fields and tennis courts into surfaces more suitable for ice hockey.

It made for an unusual sight and got us wondering here at Kids News, what causes hail?

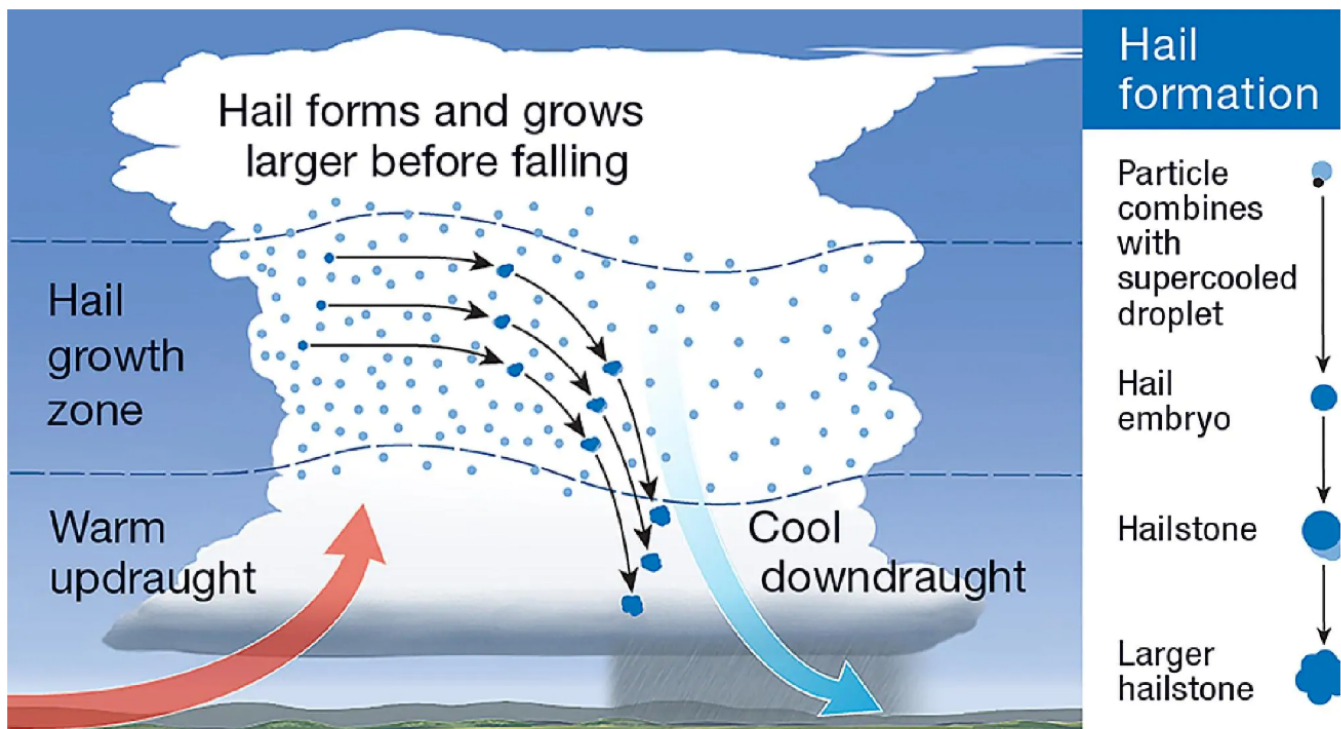
Here are some answers:



 Facebook images of the beach at Cape Paterson in Victoria after it was turned into a sea of white.  
Picture: Brad Richards

## WHAT CAUSES HAIL?

Hail is created when small water droplets\* are caught in the updraught\* of a thunderstorm. These water droplets are lifted higher and higher into the sky until they move way above the freezing level and they form into ice. Once they become too heavy for the updraught to support, they will start to fall as hail.



📷 How hail forms from Bureau of Meteorology

Hailstones are actually clumps\* of layered ice.

Hailstones start as small ice balls (called hail embryos\*) if they come into contact with tiny particles in the air, such as a speck\* of dust or dirt, or a salt crystal.

Growth into a full hailstone happens in the hail growth zone, where the updraught air temperature is -10 degrees Celcius\* to -25 degrees Celcius. Here, hail embryos collide with super-cooled water droplets, causing them to freeze on impact. Once the hailstones have collided with enough of these droplets, building up in size, they become heavy enough for gravity\* to take over, and begin to fall.

Hail can only form in thunderstorms or Cumulonimbus clouds\*.

## HOW BIG CAN HAILSTONES GET?

Hailstones can be as big as the size of a cricket ball.

Their size depends on the strength and size of the updraught. Most of the time hailstones are smaller than 25mm which is about the size of a 10c piece. However, in very intense thunderstorms, the upward air motion inside the updraught is so strong that even larger hailstones are suspended or fall very slowly. In these storms, hailstones have more time to collect even more super-cooled water droplets and grow to larger sizes, such as golf-ball or cricket-ball size.

### **AUSTRALIA'S WORST HAILSTORM**

On April 14, 1999, Sydney experienced Australia's worst hailstorm in history.

Hailstones the size of cricket balls hit the city at more than 200km/h. The storm hit 85 suburbs, causing damage to 20,000 houses, including windows, roofs and skylights.

More than 70,000 cars had windscreen and panel damage and 25 commercial planes were affected.

When the storm was at its worst, emergency services received a call for help every 10 seconds.

When it was over, the damage bill came to \$1.7 billion, the most expensive natural disaster in Australian history.

### **MOST COMMON TIMES FOR HAILSTORMS IN AUSTRALIA**

Hail can occur at any time of year, but large hail is most common in Australia during spring and early summer when temperatures are warm enough to promote the development of strong thunderstorms and the upper atmosphere is still cool enough to support growth of stronger storms.

*Source: Bureau of Meteorology*

### **GLOSSARY**

- **freak:** unusual, not normal
- **wonderland:** a place full of wonderful things
- **droplets:** a very small drop of liquid
- **updraught:** upward movement of air
- **clumps:** bunch
- **embryos:** at an early stage, such as a seed
- **speck:** a tiny spot
- **Celsius:** measurement of heat
- **gravity:** downward force
- **Cumulonimbus clouds:** rain clouds

### **CLASSROOM ACTIVITY**

#### **Draw a diagram**

Based on the information presented in the article, draw a diagram that shows how hailstones are formed. Be sure to include a heading, pictures, labels and directional arrows to make the information easy to understand.