Learning Lessons for Day 6 -10 for 7th RTI

Directions: Please complete the following work below for each subject. Your teachers will collect this packet when we return to school.

*Student Name*_____ *FOR* ***Week of March 30th***

Reading (5th - 8th Grade)

- ❑ Read for 20 minutes each day *(Parent Initials_____)*
  - ❑ Practice our strategies in class for clarifying words and finding the main idea. Write a summary of what you've read.

    Choose an article or read a book. More articles available on Ms. Thrasher's Reading RTI Google Classroom

Math (All students have also been invited to their Math RTI Google Classroom and these instructions and links will be provided there as well. If you do not have access to the internet math pages with similar skills practice are attached here.)

5th

- ❑ Practice your multiplication facts for 10 minutes using the website. Check tables 1 - 12 and set it for 5 minutes. Complete this twice for your 10 minutes and try to beat your score the second time around. https://www.mathmammoth.com/practice/multiplication *(Parent Initials_____)*
- ❑ Practice your division with remainders using the website. Check all and set it for 5 minutes. Complete this twice for your 10 minutes and try to beat your score the second time around. https://www.mathmammoth.com/practice/division-remainder *(Parent Initials_____)*

6th

- ❑ Practice your multiplication with zeros for 10 minutes using the website. Set it for 5 minutes. Complete this twice for your 10 minutes and try to beat your score the second time around. https://www.mathmammoth.com/practice/multiply-with-zeros *(Parent Initials_____)*
- ❑ Practice multiplying fractions and mixed numbers for 10 minutes using the website. Check the use only proper fractions box, fraction by whole number box, fraction by fraction box, mixed number by whole number box, mixed number by fraction box, and the mixed number by mixed number box. Set it for 5 minutes. Complete this twice for your 10 minutes and try to get more correct the second time around. https://www.mathmammoth.com/practice/multiply-fractions *(Parent Initials_____)*

7th

- ❑ Practice multiplying fractions and mixed numbers for 10 minutes using the website. Check the use only proper fractions box, fraction by whole number box, fraction by fraction box, mixed number by whole number box, mixed number by fraction box, and the mixed number by mixed number box. Set it for 5 minutes. Complete this twice for your 10 minutes and try to get more correct the second time around. https://www.mathmammoth.com/practice/multiply-fractions *(Parent Initials _____)*
- ❑ Practice multiplying integers by playing the game for 10 minutes using the website. https://www.arcademics.com/games/integer-warp *(Parent Initials _____)*

8th

- ❑ Practice multiplying integers by playing the game for 10 minutes using the website. https://www.arcademics.com/games/integer-warp *(Parent Initials _____)*
- ❑ Practice evaluating exponents for 10 minutes using the website. For the mode select both and then set it for 5 minutes. Complete this twice for your 10 minutes and try to get more correct the second time around. https://www.mathmammoth.com/practice/exponents *(Parent Initials _____)*

If you have questions, please email your teacher.

Thank you!

Mrs. Harrison dharrison@mcusd1.net

Ms. Thrasher lthrasher@mcusd1.net

Name: _____ Date: _____

Fractions Worksheet

1 a. $\frac{3}{4} \times 1\frac{1}{3} =$	**1 b.** $2\frac{8}{9} \times \frac{3}{4} =$
2 a. $5\frac{2}{8} \times \frac{4}{5} =$	**2 b.** $1\frac{6}{9} \times \frac{1}{5} =$
3 a. $\frac{1}{5} \times 2\frac{8}{10} =$	**3 b.** $\frac{3}{4} \times 4\frac{1}{9} =$

Name: _____ Date: _____

Fractions Worksheet

1 a. $2\frac{1}{5} \times 5\frac{5}{8} =$

1 b. $4\frac{6}{8} \times 6\frac{1}{3} =$

2 a. $5\frac{2}{3} \times 4\frac{2}{4} =$

2 b. $5\frac{7}{8} \times 2\frac{3}{4} =$

Name : _____ Score : _____

Teacher : _____ Date : _____

1) (+3) x (-7) =

2) (-6) - (+5) =

3) (+9) + (+4) =

4) (+2) + (+7) =

5) (+4) - (+8) =

6) (+9) x (+2) =

7) (+4) + (-9) =

8) (-5) - (+5) =

9) (-10) ÷ (+2) =

10) (-5) + (+7) =

11) (+7) - (+8) =

12) (+6) ÷ (+3) =

STATISTICS

More Zzz's, Please!

Freshman year was tough for Sam Pigman. Classes at his Seattle high school began at 7:50 a.m. But Sam and his classmates felt tired during first period. "People were groggy and not super focused," Sam says.

That changed in the fall of 2016, when Seattle officials postponed start times for public middle and high schools. They did it based on growing evidence that most teens don't get enough sleep. Sam's high school starts at 8:45 now. "That extra hour helped me a lot," says Sam, who graduated in June.

Sleep is crucial for both mental and physical health, says Horacio de la Iglesia, a neuroscientist at the University of Washington. When sleeping, our brains process information and our bodies make repairs for the next day. But unlike young kids or adults, most teens don't feel sleepy until around 11 p.m. That means it's hard for them to get the recommended 8 to 10 hours of sleep if they have to wake up super early for school.

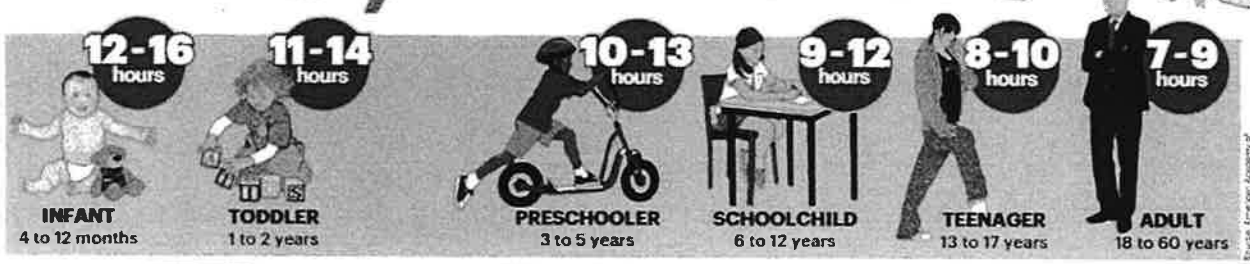
De la Iglesia wanted to know if the later start time helped students sleep more. He asked students like Sam to wear activity wristbands that tracked when they slept and woke up. The results were striking: Students got an average of 34 minutes more sleep per night after the time change. Their grades and attendance also improved.

De la Iglesia hopes his work will help convince more schools to start later. "We can't change students' biology, so we might as well change their schedule," he says.

—*Mara Grunbaum*

SLEEP NEEDS BY AGE

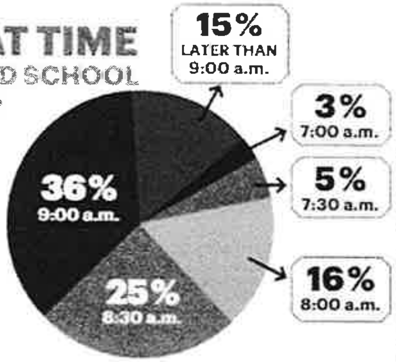
Here's the number of hours of sleep those in each age group should get every night.



Source: American Academy of Sleep Medicine, 2016 and 2018

WHAT TIME SHOULD SCHOOL START?

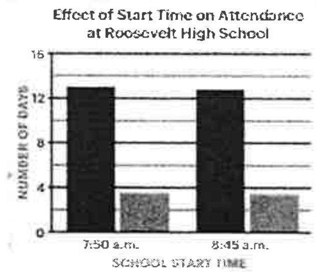
Researchers surveyed 9,089 high schoolers from eight U.S. schools about their preferred start time. Here's what they said.

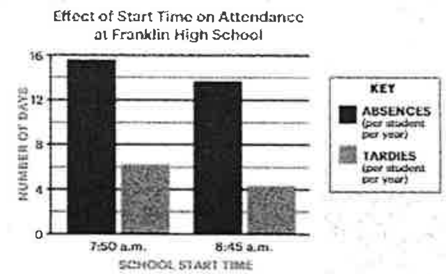


Source: University of Minnesota Center for Applied Research and Educational Improvement, 2014

SLEEPING IN IN SEATTLE

Seattle Public Schools switched to a later start time in the 2016-17 school year. Here's the attendance at two high schools before and after the time change went into effect.





Source: Science Advances, 2018

YOUR TURN

Answer the following questions using the information in the charts and graphs above.

1 How much daily sleep do schoolchildren need?
Ⓐ 7-9 hours Ⓒ 9-12 hours
Ⓑ 8-10 hours Ⓓ 10-13 hours

2 About how many days on average were students tardy at Franklin High School with a 7:50 a.m. start time?
Ⓐ 3 Ⓒ 13
Ⓑ 6 Ⓓ 15

3 What percent of high schoolers surveyed said they prefer a school start time of 8:30 a.m. or later?
Ⓐ 16% Ⓒ 76%
Ⓑ 25% Ⓓ 92%

4 Which age group needs 8 hours of sleep at minimum?
Ⓐ toddlers Ⓒ adults
Ⓑ preschoolers Ⓓ teenagers

5 What's the minimum fraction of a day—in simplest form—that infants should be asleep?
Ⓐ $\frac{1}{2}$ Ⓒ $\frac{3}{4}$
Ⓑ $\frac{6}{12}$ Ⓓ $\frac{7}{12}$

6 On average, about how many more days were Roosevelt High School students absent than tardy with a start time of 8:45 a.m.?
Ⓐ 5 Ⓒ 10
Ⓑ 7 Ⓓ 13

7 How many high schoolers surveyed preferred a school start time of 9:00 a.m., rounded to the nearest whole number?

8 What is the range in hours of sleep needed by a teenager for 1 year?

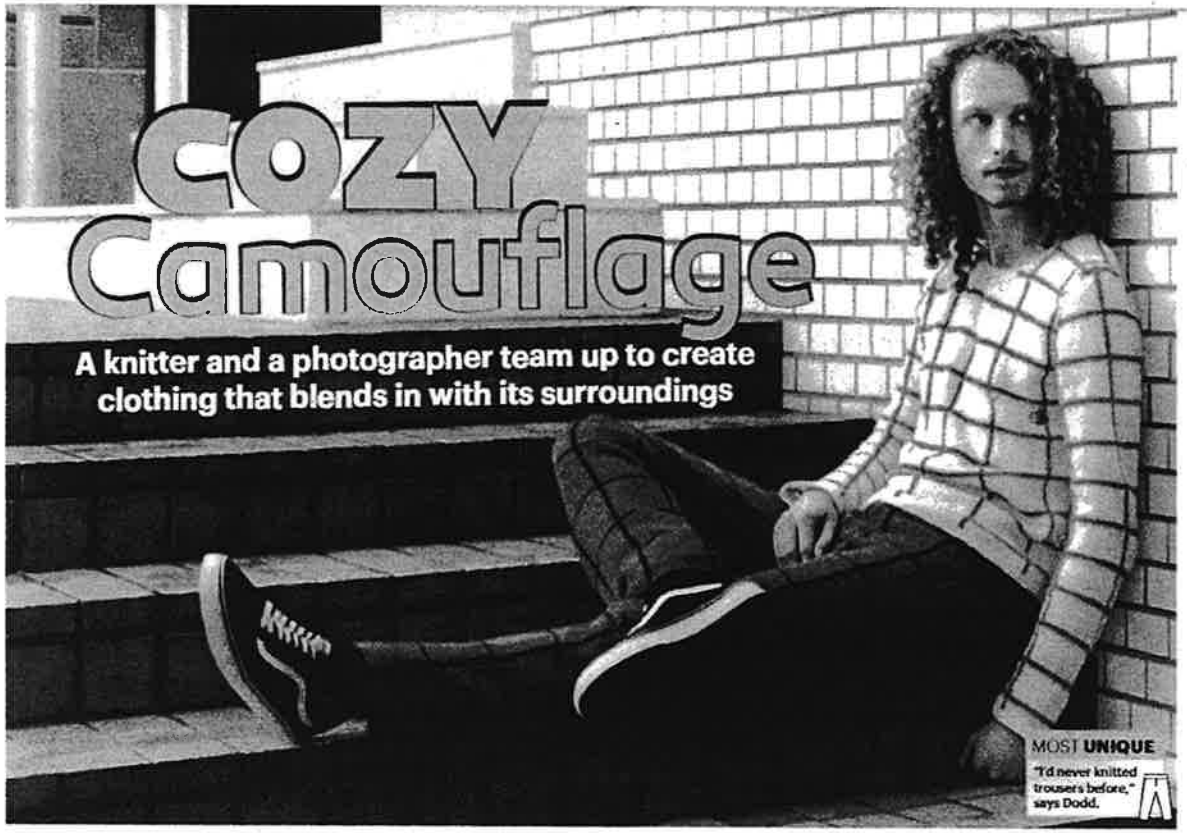
9 What is one conclusion you can draw about the effect of school start times on attendance in these two Seattle high schools?

10 Poll your class on what time they think school should start. Then create a circle graph on a separate sheet of paper to represent the data.

JONATHAN ALLARDICE ILLUSTRATIONS

COZY Camouflage

A knitter and a photographer team up to create clothing that blends in with its surroundings



MOST **UNIQUE**

"I'd never knitted trousers before," says Dodd.

MOST **COLLABORATIVE**

Dodd and Ford worked with street artist Monsieur Chat—he's blending into his own art!

MOST **SCENIC**

Matching a knit blanket to a cliff edge was surprisingly easy!

MOST **DIFFICULT**

This required 12 different balls of yarn at once.

JOSEPH FORD (ALL PHOTOS)

Most artists want their creations to stand out. But Nina Dodd, a knitter who lives in Brighton, England, creates clothing designed to blend in perfectly. From tile-patterned walls to leafy landscapes, Dodd's creations seamlessly match up with their surroundings—and they're all made out of yarn.

The Knitted Camouflage project started with a bus seat. Buses aren't known for their fashion-forward upholstery, but that didn't stop Dodd from being inspired by one. One day, she took a closer look at the bold geometric pattern covering the seats of the bus she rides every day and decided it would make a perfect knitted sweater. "It was so obvious to me that it would look good," she says.

The bus-inspired sweater caught photographer Joseph Ford's attention. They decided to team up: Ford would take the pictures, and Dodd would knit the clothing to match the background. Then they would take photographs of models wearing the clothes at the same site as the original image.

Ford began looking for interesting places clothing could blend into, like a seaside cliff or a piece of street art. When he'd find a potential background, he would snap a picture and pass it on to Dodd to see what she thought. Together, Dodd and Ford came up with nine different camouflage creations for their first batch. But they're both still on the lookout for fun new places to blend into!

MADE WITH MATH

Once they decide on a place, Dodd breaks out her ruler. She carefully measures the area each color takes up. Since each garment must take up the same area as the background it blends

MOST **INTIMIDATING**
A robe for Fatboy Slim, a famous English DJ and musician

into these measurements became her pattern. A knitting pattern is a list of instructions on how to make a specific item of clothing or object.

The project—and knitting in general—showed Dodd just how much math goes into her favorite hobby. "I was one of those students who felt that I was no good at math," Dodd says, "but I use it all the time now quite instinctively in my designs."

The bus seat sweater is a perfect example (upper right). To re-create the seat as a sweater, Dodd measured each part of the seat's pattern and took a photo for reference. She carefully found the diameter of a circle on the seat's design. She also counted how many rows and columns of circles were on each seat. Dodd then used grid paper to design the knitting pattern. **Each square represented a single stitch, or loop of yarn around a knitting needle. The average sweater is made of about 75,000 stitches, so** that meant a lot of grid squares.

And that was just the planning! It took some trial and error before Dodd was happy with how her pattern looked when knitted. "My first attempt didn't look quite right, because the circles looked more like squares," Dodd says. She changed the color of the stitches at each circle's "corner" in the background color. "Presto! Circles," she says.

BLENDING IN

Locations with large areas of one color, like the cat street art (pictured on page 9), were straightforward to make. But locations with a lot of colors and shapes were much more complicated. One of the trickiest was a cardigan made to blend in with a tile wall (pictured on the cover).

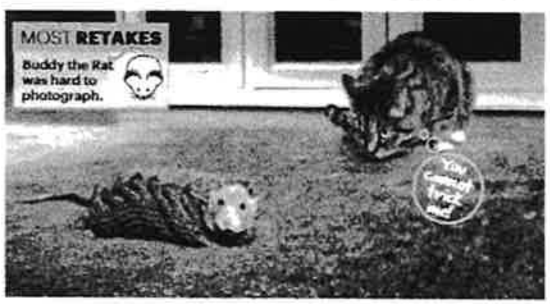
"Although it looks very geometric, there are no repeats in that pattern at all," Dodd says. "I literally drew and colored in the whole pattern on about six pieces of graph paper I had stuck together with tape and worked from a picture on my phone."

Other designs were easy to knit, but difficult to photograph because of who—or what—was wearing them. A simple tube of hot pink yarn was the fastest knit. But it ended up being the hardest to photograph because a rat modeled it! "Buddy the Rat was lovely," says Dodd, "but unfortunately he just didn't like wearing a sweater."

Figuring out how to re-create real-world patterns in clothing was a fun challenge for Dodd. "The ideas and then the design are the exciting, sparkly stage of the process that keeps the creative part of my brain happy," Dodd says. "I start from the standpoint that anything is possible. I just have to manage to work it out."

—Jennifer Hackett

FIRST **PROJECT**
The bus seat sweater that started it all



MOST **RETAKES**
Buddy the Rat was hard to photograph.

FINDING PROPORTIONS

PLAY A GAME

A proportion is an equation that states that two ratios are equivalent. Nina Dodd uses proportions to plan out how many stitches wide and rows long she needs to knit to make her custom creations.

EXAMPLE: Dodd wants to make a scarf that is 60 inches long. To make 4 inches in length, it takes 11 rows of knitting. How many rows will she need to knit to make the scarf 60 inches long?

Step 1 Write the relationship between rows and inches as a ratio. $\frac{11 \text{ rows}}{4 \text{ inches}}$

Step 2 Set up a proportion using the variable *L* to represent the total length of the scarf, which is the unknown measurement. $\frac{L}{60 \text{ in.}} = \frac{11 \text{ rows}}{4 \text{ in.}}$

Step 3 Multiply both sides by 60 in. to isolate the variable. $60 \text{ in.} \times \frac{L}{60 \text{ in.}} = \frac{11 \text{ rows}}{4 \text{ in.}} \times 60 \text{ in.}$

$L = 60 \times \frac{11 \text{ rows}}{4} = 165 \text{ rows}$

→ **So to make a scarf that is 60 inches long, Dodd would need to knit 165 rows of stitches.**

YOUR TURN

Solve proportions to answer the questions about the Knitted Camouflage project.

1 **For the graffiti cat sweater on page 9, Dodd knit** 12 stitches to make 2 inches in width. The sweater is 9 inches wide from the left edge to the beginning of the black smile. How many stitches wide is that?

2 **Each pants leg on page 8 has an opening with a** circumference of 8.5 inches. It took 15 stitches to make 3 inches in width. How many stitches make up the circumference, rounded to the nearest stitch?

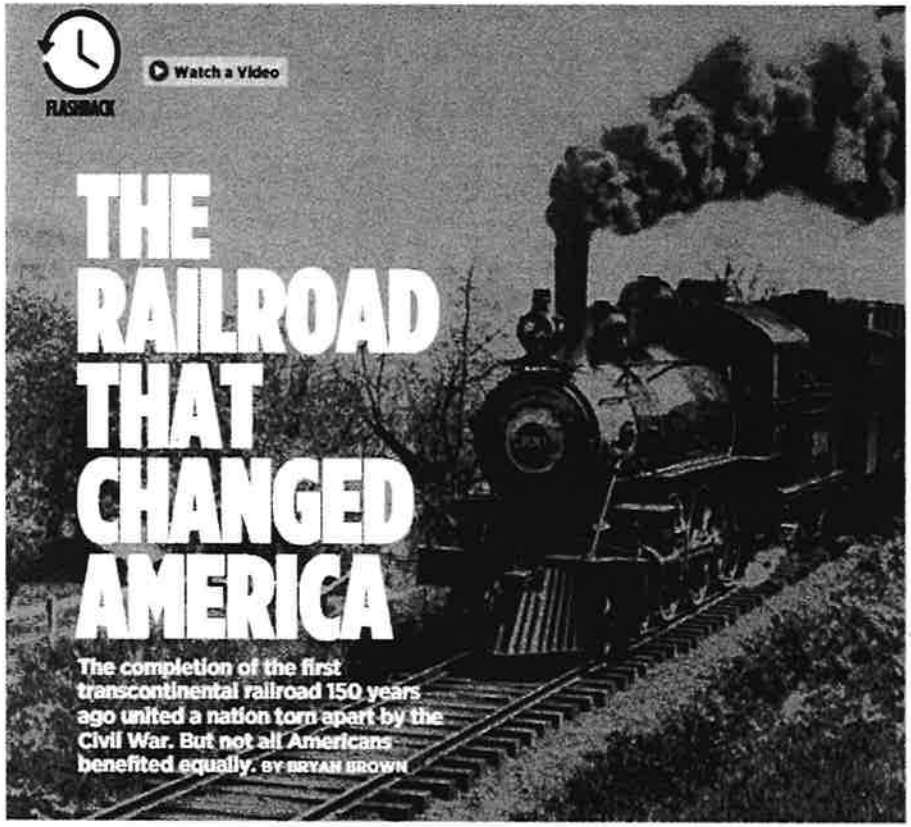
3 **The most complicated project was the tile-print** cardigan on the cover. At its widest point, its circumference is 42 inches. It took 50 stitches to make 4 inches in width. How many stitches make up the full circumference of the **cardigan?**

4 The **smallest piece** was a pink **sweater for Buddy** the Rat (*far left, bottom*). Buddy is about 6 inches long. It took 3.5 rows of stitches to make 0.5 inches in length for Buddy's sweater. How many rows of stitches did Dodd knit?

5 **Each rectangle** on the tile **sweater on page 8** is 6 inches wide and 4 inches high. It took 11 stitches to make 2 inches in width and 21 rows to make 3 inches in height. How **many stitches across and rows tall is each square?**

6 **Knitters use the term gauge, which is a unit** rate that tells them how many stitches there should be per inch of knitting. This helps a knitter make sure their finished project will fit as planned. If Dodd makes a sweater that is 32 inches and 160 stitches wide, what is the sweater's gauge?

7 **Design your own knitted camouflage project! Pick** an area in your school to blend into. Take measurements and use several pieces of grid paper to make a knitting pattern, where each square represents one stitch (about 0.2 inches).



THE RAILROAD THAT CHANGED AMERICA

The completion of the first transcontinental railroad 150 years ago united a nation torn apart by the Civil War. But not all Americans benefited equally. BY BRYAN BROWN

As You Read, Think About: What impact do trains have on the U.S.?

It's May 10, 1869, and a spirited crowd has gathered in isolated Promontory Summit, deep in Utah Territory, to make history. Little more than a collection of tents and makeshift workers' shacks, it's an unlikely spot from which to witness the transformation of the United States. Yet thousands of people have gathered here to do just that.

All eyes are on Leland Stanford, president of the Central Pacific Railroad, as he raises a hammer to tap a golden spike into the track. Clang! Cheers erupt all around and railroad engineers blow their whistles. Men give speeches and pop open bottles of champagne.

Then a telegraph operator types out a single word: "DONE." In an instant, people in New York, Chicago, and other cities receive the news and celebrate. Cannons blast, bells ring out. After years of planning and work, America's first transcontinental railroad is complete. From coast to coast, the entire country is now connected by rail.

Why the fuss? In a way, that moment—150 years ago this month—was a new beginning for the U.S. Just a few years after the country had been torn apart by the Civil War (1861-65), the nation was still trying to heal itself. At the same time, Americans had dreamed for years of a system of railroads linking the states in the East to western settlements in California *(see map, p. 21)*. Now the U.S. was joined together, literally and symbolically, by a marvel of engineering and human labor—the transcontinental railroad.

Moving West

In the 1850s, the U.S. government began encouraging Americans to head west to claim some of the country's vast open areas. **Pioneers** were lured with the promise of owning their own land. But the trip could take months—if they survived it at all.

Horse-drawn wagons were constantly at risk of breaking down in parched deserts, on barren plains, or in treacherous mountain passes. "Nothing but actual experience will give one an idea of the . . . exhaustive energy, the throbs of hope, the depths of despair, through which we lived," one pioneer wrote.

Trains could be quicker and safer. At the time, the eastern U.S. was connected by about 9,000 miles of railroad tracks. Trains had transformed the economy there by allowing goods and people to move rapidly. Building a railroad to California could bring the country, and its prosperity, west.

Congress gave the job to two companies. In 1863, the Central Pacific Railroad began laying tracks in Sacramento, California, working eastward. A year later, the Union Pacific Railroad began in Omaha, Nebraska, and headed west. (Railroad lines already reached Omaha from the East Coast.) By rewarding the companies with money and land for each mile of track, Congress turned the project into a real competition.

A Backbreaking Job for Workers

Laying nearly 1,900 miles of track across the nation's **frontier** was an incredibly difficult job. Workers used picks and shovels to level the land. They chopped down trees. Then they laid out the heavy metal rails and hammered in spikes to hold them in place.

"Workers were out there from sunrise to sunset," says Lucas Hugie, a park ranger at Promontory Summit's Golden Spike National Historical Park. "It was heavy labor all done by hand," he explains.

Most of the people working on the Central Pacific line were Chinese. Many of them—or their parents—had arrived during the **California Gold Rush**, which began in 1848. Victims of racism, the Chinese were banned from almost all jobs. With limited options, up to 20,000 Chinese people agreed to take the **grueling**, dangerous railroad work that few white Californians would accept. Even so, they were routinely paid less for longer hours than white workers.

As they progressed eastward, these laborers were confronted with an incredible challenge: the Sierra Nevada mountains. The workers had to dig 15 tunnels through the peaks, most at high elevations and almost completely with hand tools. To loosen the rock, they would chisel holes into it, fill the holes with explosive black powder, then light a fuse and rush to take cover.

While blasting was risky work, the Central Pacific crews were in even more danger from avalanches, which could strike in the mountains at any time. When the snow thawed after the especially hard winter of 1867, bodies of workers who'd been swept up in snowslides were found with their tools still in their hands.

Destroying a Way of Life

In the East, the workers of the Union Pacific were moving more quickly across the Nebraska plains. They included Civil War veterans, freed slaves, and many immigrants from Ireland, where the **Irish potato famine** had created millions of refugees. Their task was made harder by raiding →

YOU MIGHT NEED TO KNOW...

THE CALIFORNIA GOLD RUSH
In 1848, gold was discovered in California, bringing a flood of fortune seekers. Thousands were Chinese. Many of them—or their sons—would work on the Central Pacific Railroad.

THE IRISH POTATO FAMINE
Ireland's potato crop was destroyed by a disease in the 1840s, causing a great famine. Millions of Irish fled to the U.S. They became the backbone of the Union Pacific workforce.


A man pans for gold in a California river.

Online Extra!
Don't miss our primary source account of the remarkable day in 1869 when the Union Pacific and Central Pacific met at Promontory Summit.

parties from the Cheyenne, Sioux, and other Native American nations of the **Great Plains**, who saw their presence as a threat.

The Native people had good reason to be worried. The railroad cut through land where they'd lived and hunted buffalo for generations. Now, new towns of white settlers sprouted wherever the tracks went, destroying their way of life.

The U.S. government sent soldiers to fight back against the Native people. In 1867, General William Tecumseh Sherman met with members of the Great Plains nations, warning them of what was to come: "We will build iron roads, and you cannot stop the locomotive any more than you can stop the sun or the moon," he said.

The tribes continued to resist for a while, but they were eventually overpowered. "The white people have surrounded me and left me nothing but an island," Sioux leader Red Cloud would later say during a visit to Washington, D.C. "When we first had this land, we were strong. Now we are melting like snow on a hillside." Like Red Cloud, most Native Americans would soon be forced onto **reservations**.

RISKY JOBS Thousands of Chinese workers built the Central Pacific Railroad.

A Nation Transformed

By early 1869, the Central Pacific and Union Pacific were only miles apart in Utah Territory. Finally, the companies settled on a location where their two lines would meet. Now the teams were in a race to reach Promontory Summit.

In April, the Central Pacific construction chief bet a Union Pacific official that his men could lay 10 miles of track in a day. They did it, putting down 3,520 rails and 55,000 spikes in 12 hours!

But few of those workers were at the celebration at Promontory Summit on May 10. By then, most of the people who had actually built the transcontinental railroad had been let go. History notes very little about them. None of the Chinese workers' names were recorded by the Central Pacific—including those of the small crew left behind to join the last rail. "No white journalist at the ceremony was interested in reporting on their work," says historian Richard Chen, an adviser to the Museum of Chinese in America.

Still, their efforts had a huge impact on the nation. Passengers could now travel from coast to coast in about a week. Immigration to the West surged. The railroad also boosted the nation's economy. Trains began transporting raw materials such as timber and silver from the West to factories in the East. The U.S. became richer, more powerful, and more united.

Not all Americans benefited equally from the railroad, however. Native Americans in particular were pushed aside while a growing nation swallowed their lands. For better or worse, "the railroad transformed every part of the country that it touched," park ranger Hugie says. ◆

If YOU Were a Kid in 1869 ...

You worked. By age 10, many kids were already working in stores or factories, on city streets, and especially on family farms. "Breaker boys" as young as 5 broke up pieces of coal in mines.

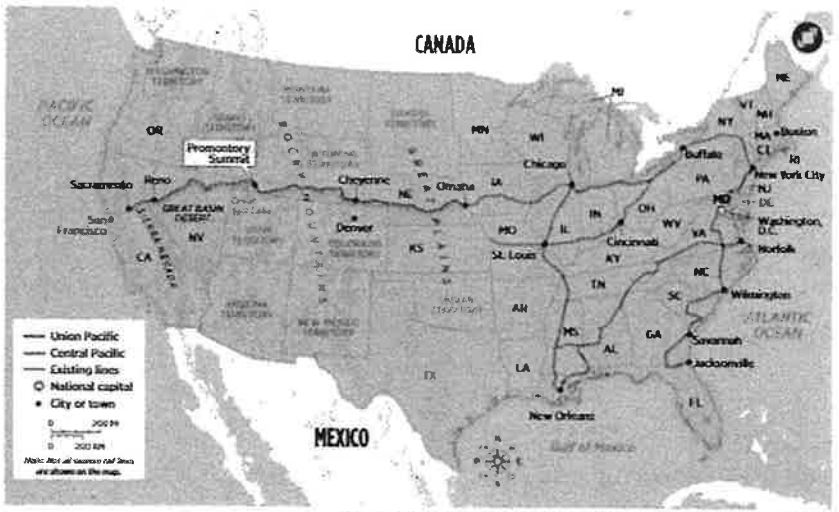
Your school was one room. Especially in rural areas, students of all ages were taught in the same room. Everybody walked to get there. School supplies were chalk and a board.

You knew Civil War veterans. Your neighbors, brothers, or father had fought. Some may not have survived. Almost every family had lost something to the conflict.

You played the Game of Life Introduced in 1860 by Milton Bradley, it was instantly popular—especially among kids. Bradley's success launched a board game industry in the U.S.

The Transcontinental Railroad

Finished in 1869, it linked the eastern states* to newer settlements in the West.



*In 1869, the U.S. was composed of 37 states and 10 territories that had not yet become states.

Map Skills

1. Promontory Summit was in which territory?
2. That spot sits near what body of water?
3. From which cities did the Union Pacific and Central Pacific lines begin?
4. Through which mountains did the workers of the Central Pacific have to build?
5. Which city lay along the route of the Union Pacific line in Wyoming Territory?
6. Which mountains did the Union Pacific cross?
7. Which three states existed west of Promontory Summit in 1869?
8. Which territory in 1869 had not yet been divided into two present-day states?
9. Which state was directly south of Indian Territory?
10. How many miles separate Denver and Chicago?

WRITE ABOUT IT!
How did the transcontinental railroad transform the nation? Why might "not all Americans have benefited equally"? Write two paragraphs explaining your answer, using evidence from the text.