

Learning Lessons for *Day 6 -10* for ^{8th} **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 : _____

Score : _____

Teacher : _____

Date : _____

1) $(+3) \times (-7) =$

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

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

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

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

6) $(+9) \times (+2) =$

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

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

9) $(-10) \div (+2) =$

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

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

12) $(+6) \div (+3) =$



Name: _____ Date: _____

Exponents Worksheet

Solve.

1 a. 4^4

1 b. 19^2

2 a. 2^{10}

2 b. 47^2

3 a. 2^1

3 b. 8^1

4 a. 0^{23}

4 b. 1000^3

5 a. 1^6

5 b. 1^{26}

6 a. 7^2

6 b. 3^3

7 a. 87^2

7 b. 2^7

8 a. 63^2

8 b. 8^2

9 a. 0^{73}

9 b. 37^2

10 a. 5^4

10 b. 31^1

Name: _____ Date: _____

Exponents Worksheet

Solve.

1 a. 0^{17}

1 b. 10^4

2 a. 5^2

2 b. $(-10)^7$

3 a. 7^2

3 b. $(-4)^1$

4 a. $(-100)^6$

4 b. $(-4)^3$

5 a. 1^{47}

5 b. $(-2)^6$

6 a. 5^3

6 b. $(-8)^1$

7 a. $(-3)^3$

7 b. 7^1

8 a. 0^4

8 b. $(-3)^1$

9 a. 100^3

9 b. 0^{23}

10 a. $(-9)^1$

10 b. 0^{36}

STATISTICS

More Zzz's, Please!



→ Freshman year was tough for Sean Flynn. Classes at his Seattle high school began at 7:50 a.m., but Sean and his classmates felt tired during first period. "People were groggy and not super focused," Sean 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. Sean's high school starts at 8:45 a.m. "That extra hour helped me a lot," says Sean, who graduated in June.

Sleep is crucial for both mental and physical health, says Hiroko 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.

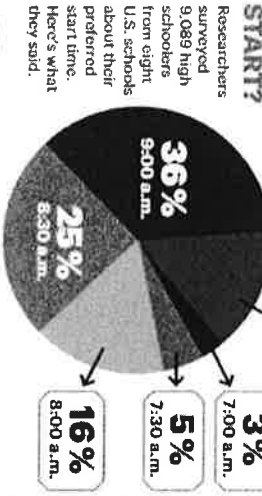
De la Iglesia wanted to know if the later start time helped students sleep more. He asked students like Sean to wear activity wristbands that tracked when they sleep and woke up. The results were striking: Students got an average of 31 minutes more sleep per night after the time change. Their grades 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.

—Maura Cranikium

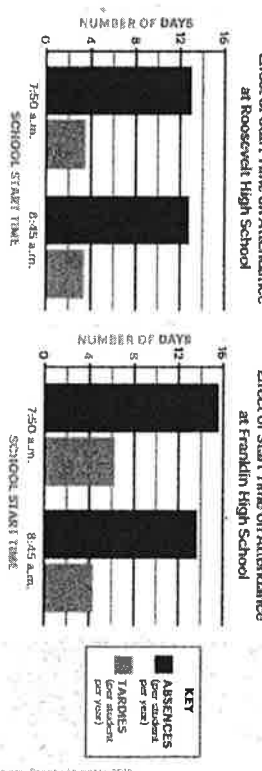
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WHAT TIME SHOULD SCHOOL START?



Source: University of Minnesota Center for Applied Research and EdSolutions, "Enrollment," 2014

SLEEPING IN SEATTLE



SoJen Science Adventure 2018

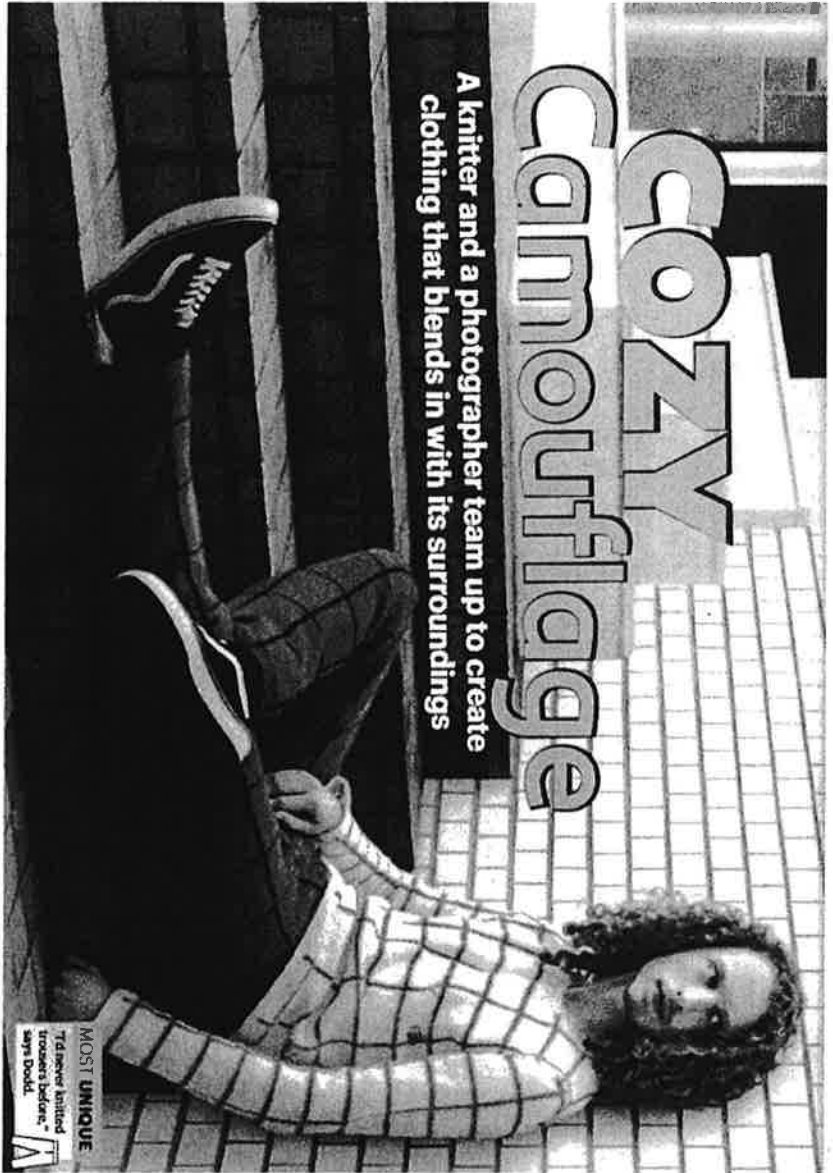
FOUR POINTS

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

- How much daily sleep do schoolchildren need?
 - Ⓐ 7-9 hours
 - Ⓑ 8-10 hours
 - Ⓒ 9-12 hours
 - Ⓓ 10-13 hours
- About how many days on average were students tardy at Franklin High School with a 7:50 a.m. start time?
 - Ⓐ 3
 - Ⓑ 5
 - Ⓒ 6
 - Ⓓ 13
 - Ⓔ 15
- What percent of high schoolers surveyed said they prefer a school start time of 8:30 a.m. or later?
 - Ⓐ 18%
 - Ⓑ 25%
 - Ⓒ 76%
 - Ⓓ 92%
- Which age group needs 8 hours of sleep at minimum?
 - Ⓐ toddlers
 - Ⓑ adults
 - Ⓒ preschoolers
 - Ⓓ teenagers
- What's the minimum fraction of a day—in simplest form—that infants should be asleep?
 - Ⓐ $\frac{1}{2}$
 - Ⓑ $\frac{3}{4}$
 - Ⓒ $\frac{5}{12}$
 - Ⓓ $\frac{7}{12}$
- On average, about how many more days were Roosevelt High School students absent than Henry with a start time of 8:45 a.m.?
 - Ⓐ 5
 - Ⓑ 7
 - Ⓒ 10
 - Ⓓ 13
- How many high schoolers surveyed preferred a school start time of 9:00 a.m., rounded to the nearest whole number?
- What is the range in hours of sleep needed by a teenager for 1 year?
- What is one conclusion you can draw about the effect of school start times on attendance in these two Seattle high schools?
- 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.

COZY Camouflage

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



Most artists wear their creations to stand out. But Sims Dodd, a knitter who lives in Brighton, England,

creates clothing designed to blend in perfectly. From tile-patterned socks to leafy handbags, Dodd's creations seamlessly match up with their surroundings—and they're all made on a pair of yarn.

The Knit and Camouflage project started with a knit coat. Dodd isn't known for her fashion-forward style, but this didn't stop Dodd from being inspired by one New York

she took a closer look at the bold geometric pattern covering the soles of the bus she rides every day and decided it would make a perfect knitted sweater. It was so obvious to her that it would look good," she says.

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

band began heading for interesting places: clothing should blend into, like a seamless 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 YARN

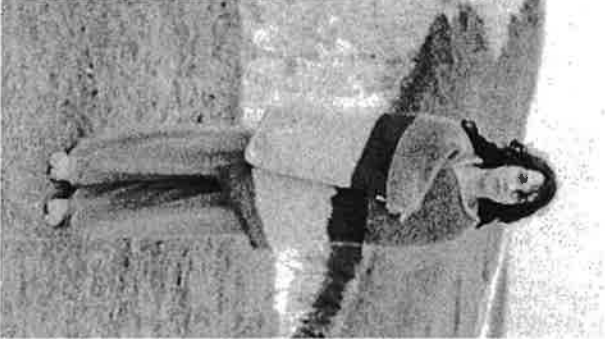
Once they decide on a place, Dodd heads out her robot. She carefully measures the area each color takes up. Since each garment must take up the same area as the background it blends

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

MOST COLLABORATIVE
Dodd and Ford worked with street artist Brandon Ochoaiz's modeling firm for their art.

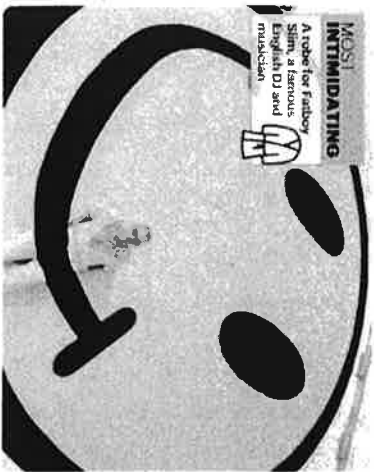
MOST SCENIC
Matching a knit blanket to a cliff edge was surprisingly easy!

MOST DIFFICULT
"This required 12 different balls of yarn at once."



MOST INTIMIDATING

A rebel for fabric: Slime & famous English DJ and musician



into these measurements because 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

much goes into her favorite hobby. "I was one of those students who felt that I was so good at math," Dodd says. "But I was, in all the time now quite indirectly, in my designs."

The bus seat sweater is a perfect example (upper right). To recreate 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.

FIRST PROJECT

The bus seat sweater that started it all



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. "Instead of just," she says,

BLENDING IN

Locations with large areas of color, like the car seat art (pictured on page 5), were straightforward to make. But locations with a lot of colors and

shades were much more complicated. One of the trickiest was a cardigan made to blend in with a wall.

"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 pattern 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 her 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, sparky stage of the process that keeps me 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

FINDING PROPORTIONS

PLAY A GAME

A proportion is an equation that states that two ratios are equivalent. Nine 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. $60 \text{ in.} \times \frac{L}{60 \text{ in.}} = \frac{L}{4 \text{ in.}} \times \frac{11 \text{ ROWS}}{4 \text{ in.}} \times 60 \text{ in.}$
to isolate the variable. $L = 60 \times \frac{11 \text{ ROWS}}{4} = 165 \text{ ROWS}$

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

WORK YOUR TURN

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

1 For the graffiti car sweater (pictured on page 9), Dodd knit 12 stitches to make 2 inches in width. The sweater is 8 inches wide from the left edge to the beginning of the black stripe. How many stitches wide is that?

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?

many stitches across and rows tall is each square?

2 Each pants leg on page 8 has an opening with a circumference of 8.5 inches. It took 13 stitches to make 3 inches in width. How many stitches make up the circumference, rounded to the nearest stitch?

4 The smallest piece was 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?

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?

3 The most complicated project was the tie-print

5 Each rectangle on the tie 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

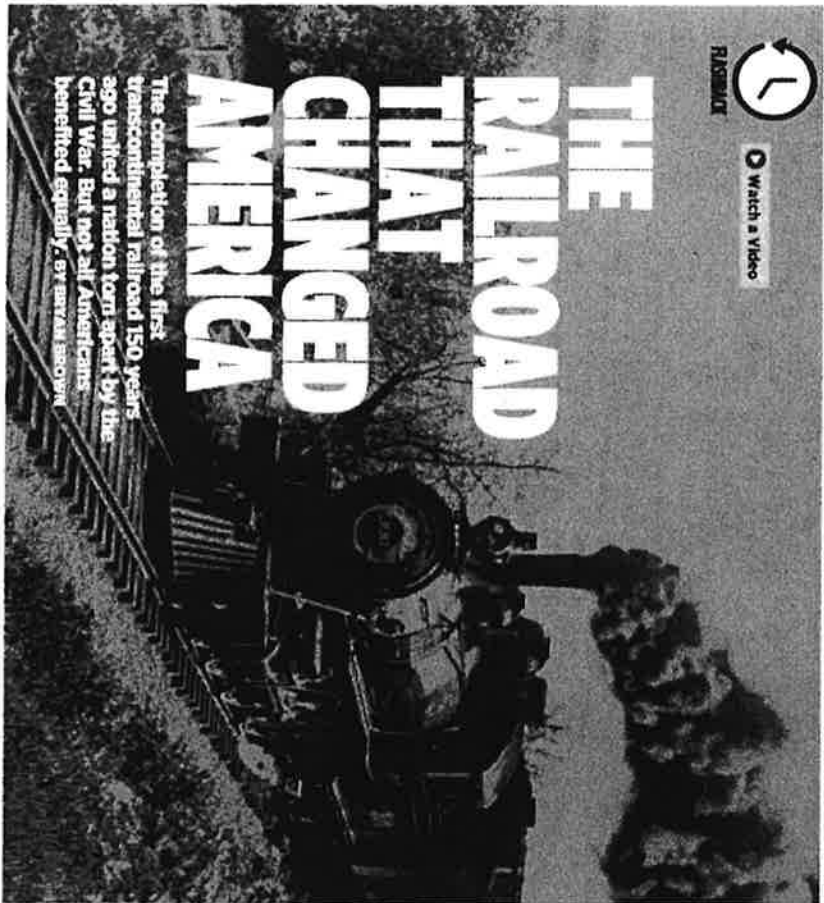
7 Design your own knitted camouflage project! Pick an area in your school to bond into. Take measurements and use several pieces of grid paper to make a knitting pattern, where each square represents one stitch (about 0.2 inches).



Watch a Video

THE RAILROAD THAT CHANGED AMERICA

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



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

It's May 10, 1869, and a spirited crowd has gathered in Golden 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 inauguration 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. 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. California bears 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.

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 awarding 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

YOU MIGHT NEED TO KNOW...

THE CALIFORNIA GOLD RUSH In 1849, 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 RUSSY POTATO PATRONS Russia's potato crop was destroyed by a disease in the 1840s, causing a great famine. Millions of rickshaws of the U.S. They became the backbone of the Union Pacific workforce.

A man pans for gold in a California river.

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 Lucius Hogue, 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, however, 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 minutely 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 lessen the risk, 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 craved millions of refugees. Their task was made harder by raiding

MADE BY BILLY ARROW. ILLUSTRATION BY MARTIN ARROW. PHOTO BY AP/WIDEWORLD



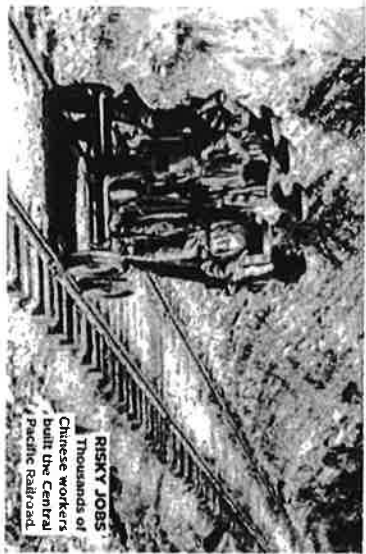
Griffiths Entert...
As they progressed eastward, these laborers were confronted with an incredible challenge: the Sierra Nevada mountains. The workers had to dig 15 tunnels through the peaks, most at high elevations and almost completely with hand tools. To lessen the risk, they would chisel holes into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

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 1863, 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



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

First had this land, we were strong. Now we are nothing like stone on a hillside." Like Red Cloud, most Native Americans would soon be forced onto **reservations**.

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 met a Union

Pacific official that his men could lay 10 miles of track in a day. They did it, putting down 3,820 rails and 55,080 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



You worked.

By age 16, many like you were working for a railroad. You may have been an ironworker, a carpenter, or a laborer. You may have been a cook, a porter, or a messenger. You may have been a Chinese worker. You may have been a young man 5 miles up a mountain, carrying a pack of coal to a mine.



Your school.

Some schools were built by the railroad. They were often made of wood and had a simple design. They were used to teach children about the railroad and the country.



You knew Civil War veterans.

Many of the men who worked on the railroad were Civil War veterans. They had fought in some of the most important battles of the war. Some of them had lost limbs or other parts of their bodies. The railroad gave them a chance to start a new life.



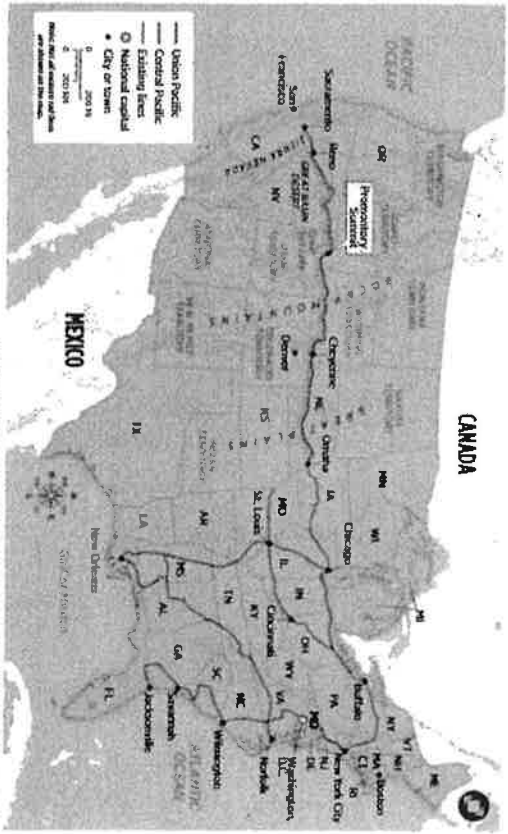
You played the Game of Life.

The railroad was a game-changer. It changed the way people lived and worked. It brought new people to the West and helped to build a new nation. It was a game of chance and risk, but it was also a game of hope and opportunity.

IF YOU WERE a Kid In 1869 ...

The Transcontinental Railroad

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



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?

interested in reporting on their work," says historian Richard Chew, 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 Hugel says. ♦



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.