

A Flying Circus

"Let's go, Clara," called Mr. Livingston. Clara heard her father's call and raced to the Model T. Her parents and brother were waiting for her. She had been collecting her notes and newspaper cut-outs to take with her. Her excitement had been brewing for days. Clara stepped into the back of the car and practically bounced in her seat. She couldn't wait to get to the airfield.



It seemed like hours had passed before her father pulled off the dirt road. He drove across the old farm's meadows and parked next to the other cars.

"Can we check out the hangar?" Clara asked eagerly.

"Sure," replied Mrs. Livingston. "You and your father can go to the hangar, while your brother and I look for a good spot to enjoy the flying circus."

Inside the hangar, Clara's eyes widened as she took in the sight of one eight-year-old World War I Curtiss JN-4D biplane. "It's just like the ones in the newspapers!" exclaimed Clara.

"Let's go," said Mr. Livingston. "They're asking people to take their places so the stunt pilots and aerialists can start the show."

"Finally!" Clara said. "I can hardly wait to watch a barrel roll and wing walker in person!"

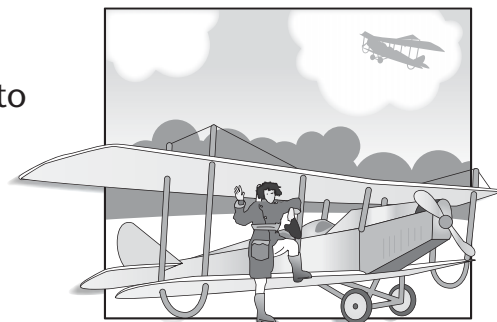
Amelia Earhart's Teacher

Amelia Earhart is famous for being the first woman to fly across the Atlantic and Pacific Oceans. But who taught her to fly? Mary Anita "Neta" Snook was Amelia Earhart's teacher.

As a small child in the early 1900s, Snook was interested in planes. After graduating from high school, she attended Iowa State College and began to learn about how planes work. It was there that she decided she wanted to fly.

Neta Snook started her flying lessons in 1917, despite the obstacles faced by women pilots of the day. When Snook first applied to the Curtiss-Wright Aviation School, she was rejected. Her application was mailed back with a stamp that read "No females allowed."

In the early 1920s, Snook became the first woman to open a commercial aviation business of her own. The business carried passengers, flew advertisements, and gave instruction. It was there that Snook met Amelia Earhart. Both women soon developed a friendship. After Earhart died, Snook wrote a book titled, "I Taught Amelia to Fly." At the age of 95, Snook took her last flight.



Remembering Yellowstone

My last camping trip was the most notable. Chen and I visited the place we described in our research report—Yellowstone National Park. We spent the first two days hiking and biking with my parents. Chen and I named all of the trees, wildflowers, and animals that we recognized from our research. My parents were impressed, and so were we. We didn't realize how much we had learned.



On third day, we explored the Upper Geyser Basin. First, we saw Castle Geyser. Unfortunately, it didn't erupt while we were there. We were disappointed. We'd heard so much about the train-like roar of exploding steam. We left Castle Geyser to see the scheduled eruption of Old Faithful Geyser. We explained how geysers work to my parents, as we all waited patiently. Then, like clockwork, the geyser shot a hissing jet of water into the air. Chen and I cheered. So did the crowd. Then, without paying attention, I stepped back to take another picture. I bumped into another photographer. She wasn't alone. Her entire film crew was with her. I mumbled an apology, but she answered with a smile. "An apology isn't necessary," she said. "I heard you talking about the geyser. I wonder. Would you be willing to explain the process for our audience?" Chen and I smiled broadly. You never know where a good research paper will take you.

Eruptions of Water and Steam

Yellowstone National Park, established in 1872, is known for its astounding natural features. Some of the most notable features are the geysers.



A geyser is a natural spring that periodically shoots a column of hot water and steam through a narrow crack or vent in the ground. Eruptions occur because rocks heated by magma, or molten rock, beneath Earth's surface, heat the water. The water near the vent is cooler than the water beneath it. The water at the bottom boils. Gas bubbles rise to the top and burst through the vent, along with water. That releases the pressure in the column, changing the superheated water into steam. Eventually, the water in the column cools and the eruption ends. In time, the process begins again.

There are more than 300 geysers in Yellowstone National Park. Most are small, sending jets of steam about 10 feet high. The larger geysers in the park, including Old Faithful, erupt to heights of 100 feet or more. The eruption of Steamboat Geyser, the world's largest geyser, can reach heights of 300 to 400 feet. However, its eruptions are unpredictable. It may erupt twice in four days, or once in 50 years.

Celebrities

Carlos and his aunt stopped outside the safety perimeter set up by park rangers. They put their binoculars to their eyes. Carlos stood deadly still as he and his aunt peered at the tall tree in front of them. There was the biggest nest Carlos had ever seen. “That nest must be eight feet wide,” he whispered to his aunt.

“You’re right. It’s huge. And look,” she whispered in return, “there they are!”

Carlos and his aunt could see the celebrated eaglets and one parent. Since the eaglets had been born a little more than three weeks ago, countless bird lovers had been visiting the same spot to observe the young birds.

“Look at how the eaglets move their beaks! I think they’re hungry,” said Carlos.

“I’d say you’re right,” replied his aunt. “Where do you think the other parent is?”

Carlos didn’t hear his aunt’s question. That’s because a park ranger had arrived. Carlos was talking to her and asking questions faster than she could respond. The ranger smiled. “Wow! I love your enthusiasm. I’ll answer any questions I can, but you’ll need to ask them one at a time, okay?”

“Okay,” Carlos said, grinning. “Now let’s get started. I have a long list.”



A National Symbol

The bald eagle is a national symbol of the United States. In 1782, America’s founders chose the bald eagle, a bird native to North America, as a symbol for the new country.

Bald eagles are not actually bald. The word *bald* comes from the Old English word *balde*, meaning “white.” The birds have white feathers on their heads and necks.

Bald eagles grow to be about three feet tall. Their wing span is about seven feet. Females weigh more than males. An adult, female bald eagle can weigh up to 14 pounds. A male can weigh up to nine pounds.

These birds are found throughout North America, from Canada to northern Mexico. Bald eagles live about 35 years in the wild and even longer in captivity.

In the 1960s, the bald eagle was listed as endangered by the Endangered Species Act. Pesticide use by humans and loss of habitat contributed to the bird’s population decline. Public education brought attention to the bird’s status, and people began to take measures to save it. The measures worked. In June, 2007, the bald eagle was removed from the list of threatened and endangered species.



Pictures of a Basketball Story

Hanna was the photographer for her school's yearbook. This year, everyone predicted that the girls' basketball team would make it to the playoffs, so Hanna wanted to record the event day-by-day. She took her first shot on the first day of practice, while the coach talked to the players off the court.



Hanna attended every game. She arrived early to take shots during warm-up exercises. Being early also gave her a seat at the front.

Halfway into the season, Hanna took what she thought was her best shot. It showed the steps leading up to a successful three-point shot. But that wasn't the show-stopper. Another player intercepted the ball as it was put back into play and went directly to the net. Astonished, the other team didn't have time to react before the ball went through the net. The crowd went wild. So did the button on Hanna's camera. This project was more than a great layout for the yearbook. She was on her way to producing her first sports photo-essay of a championship team.

QUESTION

Margaret Bourke-White

Margaret Bourke-White was an influential photographer of the last century. Born in New York in 1904, Bourke-White's love of photography grew thanks to her father's encouragement.

After graduating from Cornell in 1927, she took a job as an industrial photographer at a steel mill. Two years later, she took a job with a magazine. Her work took her where no Western photographer had been before—the Soviet Union.



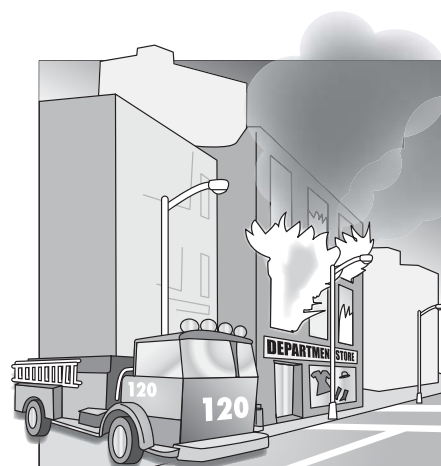
Bourke-White became a photojournalist. She took pictures of real people living real lives. She became the first female photojournalist to work for *Life* magazine. She also became the first female war correspondent, and the first woman to work in a combat zone during WWII. Her work put her in the Soviet Union when Germany invaded. It took her to North Africa with the U.S. Army Air Force. It put her in the line of fire in Italy and in the violence that erupted when India and Pakistan divided. There was nowhere Bourke-White wouldn't go to record world-changing events on film.

The Brave Firefighters

Like the rest of the crowd, Jackson and his parents had rushed out of the department store upon hearing a fire alarm shriek. It was gray and damp outside. People's breath hung in the air. More and more people gathered across the street. They coughed and stumbled in the billowing smoke. Jackson's parents, both doctors, assisted the medical teams that arrived.

Colossal flames leaped from the windows, licking the gray sky. Currents of ash and soot floated through the air. Spinning red fire-truck lights reflected off windows in the surrounding buildings. Jackson watched closely. He had never seen people work so quickly or efficiently. Even in the heat of this terrifying fire, the firefighters stayed cool, one mighty force against another.

Flame by flame, the blaze shrank. Soon, the firefighters had the monster under control. Now the beast only burped occasionally. Fire trucks left, leaving the clean up to a smaller crew. Undoubtedly, Jackson thought, this was all in a day's work for these brave men and women.



A Call to Duty

Each year, brave, local firefighters rescue a countless number of people. These service men and women work long hours in hazardous conditions to help others.

Firefighters enter buildings that are often full of thick, black smoke, as well as hot, bright, leaping flames. Visibility is often minimal. Firefighters use powerful flashlights and their sense of touch to move through unfamiliar buildings. Their bright yellow clothing helps them see each other in the dark, choking smoke. Temperatures soar, so firefighters wear special waterproof coverings that resist melting in high temperatures. The fighters are covered from head-to-toe. Helmets and head gear cover the face and neck. Thick gloves protect the hands, and heavy boots protect the feet. Full face masks, each with a Self Contained Breathing Apparatus (SCBA), deliver clean air to fighters, as they work in hot and deadly smoke.

Fighting fires is dangerous. It's physically and mentally demanding, too. The ready response of dedicated, courageous firefighters keeps us all safer.



Crossing the Bridge

“Upper or lower deck?” Maria asked, as she pulled up to the toll booth.

“Take the upper deck,” Sandra answered, enthusiastically. “The view will be awesome!”

Maria laughed to herself. Her younger sister used the word *awesome* all the time. Everything in Sandra’s life seemed to be awesome. “Maybe that’s a good thing,” she thought, as she maneuvered through traffic. She and her sister were crossing the Verrazano-Narrows Bridge in New York City. They were on their way to their cousins’ house in Staten Island.

“I’m glad there’s lots of traffic,” continued Sandra. “I love the noise and flashes of color. The right lane would be awesome. Can you get over?”

Maria put on her indicator, and began to move over. “Sure. You know, when I was younger, traveling in the right lane terrified me. I’d close my eyes so I couldn’t see how high up we were.”

“Awesome,” Sandra said. “I didn’t know that.”

“There’s probably a lot we don’t know about each other. It’s your turn now. Tell me something I don’t know about you,” Maria said, smiling.

“Awesome,” Sandra said. “Let me think a minute.”



The Verrazano-Narrows Bridge

In 1964, the world’s longest suspension bridge opened in New York. The Verrazano-Narrow Bridge connects two boroughs, Brooklyn and Staten Island, in New York City. It was named for Giovanni da Verrazano, a European explorer who sailed into New York Harbor in 1524. The Narrows is the name of the waterway that separates the two boroughs between Upper New York Bay and Lower New York Bay.

A suspension bridge is a bridge with a roadway that hangs from cables. These cables are supported by towers. Othmar Ammann designed the Verrazano-Narrows Bridge. It has two towers that are each 693 feet high. Each tower weighs about 27,000 tons. The bridge spans 4,260 feet. Ammann designed many other famous New York bridges, too, including the George Washington Bridge that connects New York City and New Jersey.

Today, the Verrazano-Narrows Bridge is no longer the world’s longest suspension bridge. However, it is still the longest in the country and is famous for being the starting point for the annual New York City marathon.



Battle Call

“Get inside, Ruth,” her father ordered, as she sat fanning herself outside of her family’s general store in Gettysburg. It was a hot morning in July, 1863.

Ruth’s eyes widened as she turned around in shock. She rarely heard her father speak so sharply. “What’s wrong?” she asked, as she ran inside.

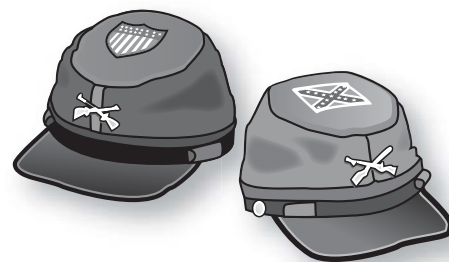
“Fighting has begun between Confederate and Union soldiers,” he replied, breathlessly.

From where they lived above the store, Ruth could hear faint, unfamiliar noises. Suddenly, she was terrified. She worried for their safety.

“Ruth, we must get ready for the soldiers,” her mother said. Ruth sat with her sisters and mother and started tearing cloth for bandages. Her father filled buckets with water. As they worked, Ruth’s parents spoke calmly to the girls, explaining what they might have to do. Meanwhile, the sound of gunshots, horses, and yelling men got louder.

“When the battle is over,” Ruth’s father explained, “there will be wounded soldiers from both sides. We may be able to help in some way. We’ll need all of you to be strong. Do you understand?”

The girls nodded silently and continued tearing bandages.



The Battle of Gettysburg

One of the most important battles of the Civil War was the Battle of Gettysburg. The Union’s victory over the Confederates was an important turning point in the war. However, the victory was costly for both sides.

Gettysburg, Pennsylvania, was a small town in 1863. Confederate troops from the South marched into town in search of supplies. They spotted Union troops from the North, who were also heading into town. The results were disastrous.

Confederate and Union soldiers fought for three, hot days from July 1st to July 3rd. Finally, on the afternoon of the third day, Confederate troops were ordered to make a final charge against the Union troops. The Union troops were fierce and fought back. The Confederate troops retreated.

The cost of the Battle of Gettysburg was great. Over 5,000 soldiers on both sides lost their lives, and about 22,000 were left wounded. Both surgeons and Gettysburg citizens were burdened with caring for the wounded soldiers of both armies.



A Memorable Night

I was asleep, wrapped in a warm, muggy breeze that fluttered through my window. Then, in the early morning hours of July 21, 1969, my mother came storming into my room. “Hurry, Jonathan! Come downstairs!” she called out, breathlessly.

I rubbed my eyes, allowed them to focus, and then ran downstairs to see what was the matter. There was my entire family huddled around the television.

“They made it, sleepy head. They’re on the moon!” my brother shouted.

I sat down and watched the black-and-white image on the television. The *Apollo 11* had landed successfully on the moon. Astronaut Neil Armstrong was going down a ladder. His feet touched the surface of the moon, and the very first moonwalk began. We all cheered. My parents seemed to have tears in their eyes. It was incredible to be able to witness this extraordinary mission as it happened.

No one slept that night. We watched every minute of the broadcast. My favorite part was when astronaut Buzz Aldrin joined Armstrong on the moon’s dusty surface. I’ll always remember where I was and the people I was with on July 21, 1969.



Earth’s Natural Satellite

Earth has only one natural satellite—the moon. The moon is the only celestial body other than Earth to be visited by humans.

The moon is about one-fourth the size of Earth. It also has less gravitational pull. Pictures show astronauts taking wide, giant leaps on the moon. That’s possible because the moon’s weaker gravity doesn’t exert as much force on the jumper.

The moon, as viewed from Earth, appears to change shape from a full circle to slices of various widths. In fact, the moon doesn’t change. What we see each night is the part of the moon that reflects the sun’s light. Rays from the sun pass around Earth and reflect off of the moon’s surface. We see the reflected light. As the moon revolves around Earth, we see different parts of the illuminated moon.

There is no weather on the moon. That means there is no rain, wind, or snow to change the lunar landscape. In all the years that scientists have been studying the moon, there has been almost no natural change to the moon’s surface.

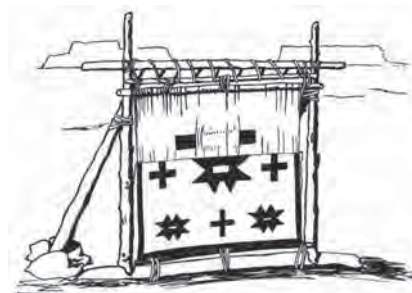


The Gift of Weaving

Nascha was lost in deep thought as she finished her rug. She couldn't wait for her older sister Doba to return home. Doba had left four months ago to attend college. This was the first time the sisters had been separated.

Remaining at home on the Navajo reservation with her parents and large, extended family didn't ease the loneliness. She truly missed spending time with her sister. Growing up, Nascha had spent so much of her free time with Doba, weaving traditional Navajo rugs.

Nascha smiled as she recalled the first time her mother taught the two sisters to weave. She told them the story of Spider Woman, the first weaver who taught all women how to weave. Doba had been determined to be the best weaver ever, but their mother taught them that weaving isn't a competition. It is a skill to be used to make life better. Since that day, the sisters made countless rugs and blankets. The rug on Nascha's loom today was a gift to her sister, for her new home at college.



The Navajo Nation

Today, Diné Bikéyah, or the Navajo Nation, spans across parts of Arizona, Utah, and New Mexico. The Navajo have strived to maintain their cultural heritage while keeping up with modern progress.

Traditionally, the Navajo built hogans, houses made of mud and wood, with doors facing east, where the sun rises. Today, the Navajo use hogans mainly for ceremonial purposes. Some Navajo have also chosen to live outside Navajo territory.

Raising sheep for wool is another important tradition. Historically, mothers taught their daughters to weave, and the items were used in trade. Today, the Navajo continue the tradition of weaving.

The Navajo value their traditions and strong, community values. They have also accepted modern ways of achieving success through formal education, economic success, and a strong central government. One example of modern Navajo success is the strong, tribal government that was established in 1923 and reorganized in 1991. The Navajo Nation government has a three-branch system, legislative, executive, and judicial. It is currently considered the largest and most sophisticated form of Native American government.

