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Prairie Belle, Belle of the Prairie

Story by Sam R. McColl
Illustration by Jeremy Tugeau
My name is Prairie Belle Burney. That’s because when I was born, back in 1882, my father said I was the prettiest thing he’d ever seen. He said I was the “belle of the prairie” and named me so.

My father was a farmer, and my family lived off the land. I say family, but it was only just Pa and me. My mother had passed when I was very little, so little that I don’t remember her at all. Pa had a sepia-tone photograph of her on the mantle in his bedroom. Whenever he’d look at that picture, he would smile a dreamy smile like Ma was right there in the room with him. Sometimes at night I’d sit by Pa’s feet as he rocked in his chair and told stories about my mother. I’m sure he missed her, but he kept her alive through his stories. And that’s how I came to know my mother, too, through Pa’s stories.

We had nearly everything we needed right there on our farm. Sometimes we’d go into town, but not very often—only to buy supplies like salt, lard, and iron farm tools. I liked going into town because my father usually bought me something special. A peppermint stick from the candy shop, a shiny ribbon from the dressmaker—nothing terribly large. Pa would also sell some of his crops whenever we’d go into town. That’s how we bought seed for the next year’s planting or fabric for our clothes. If there was any money left over, we’d set it aside for lean times. Although we didn’t have much to spare, most years Pa and I had it pretty good.

But I remember one summer when things were different. We hadn’t gone into town for awhile. There hadn’t been many crops. You see, if you want to grow green vegetables, waving yellow wheat, and tall stalks of corn, you need rain. But the skies had gone dry, and so had the prairies. Pa tried to keep the crops alive with water from the well, but the well had begun to run dry too. There was barely enough water to drink, much less to shower on the thirsty crops.
Every morning when the rooster crowed, Pa would go outside to tend to the garden, slop the hogs, and see how Big Nellie, our only cow, had fared overnight. When I awoke, I’d go and help him. As he rubbed the dry cornhusks between his fingers, I’d see the worry in his eyes.

“You scared, Pa?” I’d ask.

He’d always put on a show of bravery. “No, Prairie Belle, I ain’t worried. The land always provides, and she always will.” But I could tell he didn’t really mean the things he said. I reckon he just didn’t want to worry me.

So I’d go back into the simple cabin that we called home. I’d make breakfast for Pa. I’d see the dwindling supplies of water and cornmeal. I was worried, but I trusted my pa more than I trusted anyone else, and I just hoped he’d figure something out. But it was scary when the scoop-spoon scraped the bottom of the cornmeal barrel, and when there were only a few ladlefuls of water left in the bucket from the well. After a while, I began to see that things weren’t getting much better. They were only getting worse.
One morning, since I hadn’t slept very well, I got up earlier than usual. After rising from bed, dressing, and putting my hair up like I always do, I walked out into the yard. I expected to find Pa working in the garden, as he did most mornings. But he wasn’t there. So I walked back into the house and crept up to the wooden door that separated his bedroom from the kitchen. I opened it and peeked inside. I figured maybe I was up so early that he hadn’t gotten out of bed yet. But Pa wasn’t there, either. Maybe he went to town, I thought. But I knew that he always told me before he went into town, and usually he asked if I wanted to go with him. So I reckoned that wasn’t it. Where had he gone? It didn’t make any sense.

There wasn’t anything to do but go looking for him. First I put some water on the stove to boil for coffee. That way if he came back while I was out, he’d at least have part of breakfast waiting for him. I always tried to make sure he was well-fed. I reckon that’s what my ma used to do, and it’s what I’d done ever since I could reach the stove. Someone had to look after my pa.

I got the water boiling and fetched the coffee jar. The scoop made an irritating scratch against the bottom as I spooned out the last of the remaining coffee. “There’s another supply that we need to replenish,” I thought. But I made the coffee anyhow and left it simmering on the stove.
Then I strolled out into the early morning air. It was still chilly, with a bite to the wind, so I knotted my kerchief under my chin. “Pa?” I called, thinking he might be working somewhere near the house. No answer. “Where’d you go, Pa?” Still nothing, so I started walking. I headed toward the far end of the garden and the bend in the dry gulch where, in better times, water would flow.

Pa wasn’t there. I walked toward the stand of dogwood trees, calling for him. Still no answer. I strode past the dogwoods and around the briar patch on the far side. Beyond was the small corral where we kept Big Nellie, our milking cow. We also kept our horse in that corral when he wasn’t in the barn.

As I rounded the briar patch, I saw Pa sitting on the fence. His back was to me, and it seemed as though he didn’t hear me approaching. I cleared my throat. “Pa?” I said between a whisper and a shout. My voice broke the morning silence.

Pa turned with a start and jumped down from the fence. On the ground, I saw an empty milking bucket. Pa ran toward me. As he reached me, his big arms picked me up and twirled me ’round so I faced away from the corral.

“What’s going on, Pa?” I asked. “Why are you out here this morning? Did you come to fetch milk for coffee? I could’ve done that,” I said.

Pa held my shoulders in his strong hands and looked at me. He began to speak. “Belle, you’re getting old enough to know that sometimes things don’t quite work out the way you reckon they will. Sometimes, they don’t even turn out the way you reckon they ought.” His eyes were troubled. “I need you to be strong, strong like you’ve always been, strong like your mother was. I got some bad news about Big Nellie.”
I didn’t like the sound of this. I cleared my throat and held my head up. “What is it, Pa?” I asked.

I already knew what he was going to say. And I didn’t want to hear it.
I knew that when Pa spoke, what he had to say was important, so I straightened my shoulders and said, “Go ahead, Pa. I’m ready.”

“Well, you know we’ve had a real hot and dry summer ‘round these parts,” Pa said. I nodded. “So it’s been mighty stressful on Big Nellie. I reckon she’s been getting up there in years. I had her before you were born you know. I’ve been so worried about the health of our farm that I missed signs that Big Nellie wasn’t healthy herself. I didn’t notice that she’d lost her appetite and couldn’t shake a nasty cold. I got distracted and just didn’t see it. Belle, I’m sorry, but Big Nellie died last night. I came out here early this morning to milk her and there she lay.”

I couldn’t help it. Tears sprang to my eyes. Big Nellie was part of the family, even though she was just a cow. I used to come out to the corral when something was bothering me. I’d tell Big Nellie about it, and she’d just listen. She’d never disagree. She’d never argue. And now she was gone.

“What are we going to do, Pa?” I asked. “How are we going to get milk?”

Running out of milk was a concern for everyone living on the prairie. I’d hear stories in town about people trying to survive without milk. They wouldn’t get the vitamins they needed, and they’d become sick and weak. Pa used to tell me, “Drink your milk, Belle, so your bones will be strong.” And now our source of milk was gone.

Pa looked up at the empty sky and kicked a dirt clod with his boot. He was silent for a long time. When at last he spoke, it was with a sigh. “Well, I reckon I may have enough money saved up from last season to get us a new cow, though I ain’t sure. Problem is, Tom Ford’s ranch is about two days’ ride away. I’d be gone for quite a while.” He looked hard at me. “Belle, you figure you can hold down the fort while I’m gone?”

Pa had left me alone a couple of times before, but never for longer than a day. The prospect was at once frightening and exciting. As a prairie girl, I knew how to feed myself, keep house, and tend to the garden. I’d done it all before.
But on the other hand, what would I do if something bad happened? There’d be nobody to take care of me. We didn't have any neighbors, not way out in the middle of the prairie. There was no place I could go for help. But still, I knew that we needed another cow. Pa would have to go. And I would have to stay behind.

“Sure, Pa. I can handle it. Let’s have some breakfast, and then you’d best be on your way.”

We walked back to the cabin hand in hand. I don’t know what Pa was thinking about, but my mind was racing with thoughts of being alone for the next few days.

At the cabin, I fixed up eggs and bacon for us. Pa made a list of chores that he wanted me to take care of while he was gone. He wanted me to water the wheat crops with whatever water remained in the well. He wanted me to keep the cabin clean and tend to the garden. We finished breakfast. As I cleaned the dishes, I heard Pa packing his bags.
Pa came out of his room off the kitchen. “Come and help me saddle up, Belle,” Pa said, shouldering his pack. Together we walked out of the cabin and over to the barn. Pa threw open the heavy wooden door. The morning light illuminated the barn. Prince, Pa’s prized palomino stud, whinnied a greeting.

Pa walked over to the horse and rubbed his long face. “We’re taking a trip today, Prince. Just you and me,” Pa said softly. Prince snorted and stomped his feet. “Belle,” Pa said, “grab Prince’s saddle and blanket from the post over there while I fill his feedbag.” Pa pointed across the barn to where his burnished black leather saddle sat on a wooden pole. I grabbed the soft wool blanket first and threw it over Prince’s broad, strong back. Prince snorted again. I took the saddle and tried to hoist it over his back, but it was too heavy and Prince was too tall.

Pa saw that I was struggling. “Let me give you a hand,” he said, closing the feedbag and walking over to me. Together we saddled Prince and reined him up. I led him out of the barn and into the yard. Pa followed, carrying the sack of feed. In the yard, he lashed his bedroll and pack to his saddle and hoisted himself onto Prince’s back. From his perch, he looked down at me.

“You gonna be okay, Belle?” he asked, one last time.

“I reckon so, Pa,” I said, squinting upward into the sunlight. I knew I had to be brave.
Pa reached down, tousled my hair with his rough hands, and sat up again in the saddle. “I’ll be back in a few days. Keep yourself fed, keep the cabin clean, and I’ll bring us back a new milking cow when I return. I’m right proud of you, Belle.”

I felt my cheeks flush. “Good luck with Mr. Ford, Pa,” I said. “I’ll see you in a couple of days. Everything will be okay.”

Pa kicked Prince, goading the palomino forward. “Giddy up, old boy, giddy up,” he said and rode out of the yard. They trotted off down the dusty wagon trail that went past our small spread of land. I walked to the edge of the trail and watched Pa until he was but a speck on the distant horizon. The sun felt warm on my face.

So there I was, Prairie Belle, the belle of the prairie, left to fend for myself for a few days. “This ain’t no big deal,” I said to no one in particular. I walked back into the cabin and looked at the list of chores Pa had left for me. No time like the present. I decided I’d start by sweeping out the cabin.

As I swept, I whistled an old cowboy song that Pa had taught me when I was younger. The day grew warm. The sun was shining, and birds were chirping outside. It was a beautiful day. I opened all the windows and doors in the cabin. “This isn’t half bad,” I said to myself. “In fact, I quite like being on my own.”
For such a small house, there sure was a lot of prairie dust to sweep out. It kept me busy all morning. When at last I set the broom aside, it was time to fix myself lunch. I knew we had some ham in the icebox, so I fetched it, sliced some bread, made myself a ham sandwich, and heated up some beans to go with it. I poured a short glass of milk from what was left in the jar—the last we had from Big Nellie. Then I sat out on the front porch, listening to the birds and watching the day go by.

I didn’t see any reason why things wouldn’t turn out okay. I was going to be just fine.
Late that afternoon, after I’d finished a few more chores, I sat again on the porch in the rocking chair. Back and forth I rocked, back and forth, reading from my book. I was reading *Gulliver’s Travels* by Jonathan Swift. The hero, Lemuel Gulliver, had landed on a funny little island, the island of Lilliput, where the people were no taller than the heels of Mr. Gulliver’s boots. Imagine that!

As I read, I pretended that I was on the island of Lilliput. The tiny birds frolicking in the sycamore tree and the prairie dogs playing across the trail—these were my own tiny Lilliputians. Here I was, a visitor to their fascinating island. I got lost in my fantasy, and then I got lost in the story of Gulliver and his travels. I must’ve read for hours. The time flew by.

When at last I looked up, I scanned the sycamore tree for my own Lilliputian birds. But there were no birds in the tree. There were no prairie dogs in the field. There was no sign of life anywhere. Only me. Even the air was dead silent, except for the swirling of dust from a hot wind that blew from the west. The worst of it was the color of the sky. As I had been reading, the late afternoon sky had turned from a sunny blue to a sickening green. Dark clouds were forming on the horizon.

At first I thought that the clouds might bring some much-needed rain to the prairie. I hoped for that. But then I remembered something that my father had told me last season. “When the sky turns green in the summer, Belle,” he had said, “you must take cover. For it means one thing, and one thing only.”

Tornado.

Fear gripped me. I closed my book. What was I to do? I knew I could not stay sitting in this rocking chair if a tornado was coming. But I could not move. The air grew darker and greener. The swirling dust from the wind grew thicker.
“Take cover, Belle!” I heard my father's urgent voice in my head. With that, I leaped up from the chair.

The smell of the dust was overpowering. It choked me. I ran inside, slamming the door behind me. My heart was racing, and my pulse pounded in my ears. Tears welled up, but I brushed them away. I sat at the window, looking out at the swirling dust and the sickly green sky. The wind began to blow harder, shaking the cabin door, and sweeping dust in through the crack underneath it.

I ran across the kitchen and pushed the table against the door, bracing it. Would that work? I didn't know. Then I stuffed a few wet dishrags underneath the crack of the door. The wind grew stronger. I looked out the window again.

And that's when I saw it.
Down the wagon trail, there it was. The tornado. It was the most frightening thing I had ever seen. It was a towering gray mass of clouds, a swirling monster ripping through the prairie. It reached all the way to the sky. And the sound! It was a deafening roar. Imagine the sound of a thousand trees falling in a forest at once. Or a million waterwheels churning together. That's how loud it was.

As the tornado chugged down the wagon trail, it left a wide swath of destruction. It ripped up the grass of the prairie as though it were autumn leaves resting on the ground. I watched it uproot and level a large oak tree.

It was coming closer.

I knew I had to get away from the window. But would that be enough? I saw what the tornado did to that strong, old oak tree. What would it do to the cabin, with me inside? It could blow the cabin down like a house of cards.

But still, the cabin was the safest place I could think of. It was all I had. I knew I needed to get as far inside as possible, so I ran into Pa’s room and slammed the door behind me. The deafening roar grew louder. I heard an explosion. It was like a locomotive had just charged through my yard. I dove under the bed in fear.

Then I heard the unmistakable sound of breaking glass. The whole cabin shook as though in an earthquake. Through my tears, I watched the photograph of my mother fall to the floor, the glass in the frame shattering when it hit the wooden planks. The bed above me rattled from the force of the tornado’s winds. A gray darkness overtook the cabin, and I could barely see anything.
I don’t know how long it lasted. Minutes turned into hours during the violence of the storm. Through the roar, I heard the cast iron pots and pans in the kitchen bang and clang to the floor. The shaking and rattling of the cabin jarred me to the bone. I wished more than ever that Pa was here with me. I’d never been that terrified in my life, and I haven’t been since. Sobbing softly, I waited for it to pass. It seemed like it never would. The rumbling roar and violent shaking went on and on. Glasses shattered. Furniture toppled to the ground.

And then, just like that, it stopped.

The ground stopped shaking. The roaring ceased. The darkness lifted.

I stayed under the bed for many minutes more, making sure that it had ended. My forehead was hot from my sobbing, and my head hurt from the noise and the terror. Slowly I crawled from under the bed. I stood up and dusted off my dress. My knees were still shaking. I steadied myself against the post of Pa’s bed. I looked at myself in the mirror, which had cracked down the middle. I was a mess. My hair, my dress, my arms were covered in dust. My cheeks were tear-stained. I felt myself all over for injuries. I was dirty and scared, but I was okay.

I walked to the door of Pa’s room and held my breath as I opened it, not knowing what to expect on the other side.
The kitchen was a disaster. Its windows had been blown out. Broken glass sparkled on the floor. The two chairs were upended. Pots, pans, skillets, and silverware were everywhere. One of the cupboard doors hung limply from a single hinge. Dust covered almost every surface. But bracing the door with the heavy kitchen table had worked. The table was still in place. The door was still shut tight. I could only imagine what damage the tornado would have caused if the door had not held.

Slowly I slid the table away from the door. Its thick legs made tracks through the grayish-brown dust on the floor. Then I opened the front door of the cabin and stepped outside. What I saw took my breath away. I sat down heavily on the porch steps. I felt a sob rising in my throat and I cried out, “Oh, no!”

The wooden barn was gone. The tornado had ripped right through it. All that remained were some smashed wooden planks that littered the yard and a few support beams scattered by the wind. I walked over to the pile of wood. Pa and I had worked so hard to build that barn! We had spent three long days cutting boards and nailing them together. And now it was gone.

The scene was one of complete ruin. Straw and hay were mixed in with the pile of wood. I sifted through the wreckage, looking for anything I could salvage. Under one plank I found a sack of grain. The wooden tether pole that Pa always used for Prince was lying on the ground. Pa’s everyday saddle, the one he used whenever he rode around the spread, was gone. So were all of the brushes and combs that he used to groom Prince. I was relieved that Prince hadn’t been in the barn during the tornado. He wouldn’t have made it. I found one of the halters that we used to walk him around and picked it up.
Then it hit me.

While I had been tucked safely inside the house under Pa’s bed, Pa had been out in the open. What could he have done against the fury of the storm?

“Pa!” I whispered urgently.
I dropped the halter. My head started spinning. I grew dizzy and nearly collapsed. I stumbled over to the porch steps, sat down, and put my head in my hands. Thoughts of Pa out there with no shelter, facing the horrible tornado, swirled in my mind.

As scared as I had been during the tornado, that was nothing compared to the fear I now felt. From deep inside, a gigantic sob rose up. I couldn’t stop it. I began to cry. Loud sobs shook me back and forth, a tornado from within. Never had I felt so alone, so afraid. I cried until I could cry no more and then, exhausted, I fell asleep right there on the porch.

I have no idea how long I slept. By the time I awoke, the sky had grown completely dark. I stood up and entered the house. The moon was full, and the kitchen was partially lit from the moonlight. Gingerly, I climbed the ladder to the loft above the kitchen where I slept at night. In the partial darkness of the loft, I found the lantern and matches which I kept by my bed. I carried them carefully down the ladder. Using the matches, I lit the lantern. Its light cast a ghostly glow over the kitchen, and I was reminded of the destruction left by the tornado. The glass, the broken wood, the scattered pots and pans. Everything was a wreck. I couldn’t imagine where to start.

And then I heard something.

From off in the distance, somewhere outside, I heard a voice. I ran to the porch to listen. Holding the lantern toward the darkness, I stood very still. There it was! I heard the voice again.

“Prairie Belle! Prairie Belle!”

I couldn’t believe my ears. “Pa!?” I called into the darkness. “Is that you?”

Then, under the sound of his voice, I heard the clappity-clapping of horse hooves. He called again, “Prairie Belle!”
“Pa!” I shouted, with all the strength I could muster.

Soon Pa and Prince rode into the light from the lantern. Before Prince had even come to a halt, Pa leaped off, jumped onto the porch, and swept me into his arms.

I cried again, but this time they were tears of joy. Pa held me close, whispering my name over and over again. Then he put me down.

“Are you okay, Prairie Belle?” he asked.

I swallowed my tears. “I’m okay, Pa. But…but…but…the barn....”

Pa put his finger to my lips. “Shush. Don’t worry about the barn,” he said softly. He took the lantern from my hands and walked a few steps toward the barn. When he saw the damage, he whistled low. Prince whinnied in response. Then Pa turned to me. “I’m glad you’re safe, my Prairie Belle.”

I said, “Pa, what happened out there? How did you make it through the tornado?”

Pa said, “Let’s go inside. I’ve got quite a story to tell.”
We went inside. Pa found the coffee pot, the coffee jar, and unpacked a tin of coffee. He put some water on to boil, and, as we waited, he told me what had happened.

He’d been riding across the prairie when the storm hit. He had seen the tornado form from the clouds. He’d seen the sickening green sky. Lucky for him, he’d not been in the tornado’s path. But when he noticed that it was heading in the general direction of our cabin, he raced back as fast as he could. He was so afraid of what he might find—and what he might not.

There in our kitchen, he reached over and touched my hand, as if to reassure himself that I was still alive. Then I told Pa about all I’d been through. When I finished, I asked him a question that had been nagging at me. “Pa, how could the cabin still be standing, when the barn was destroyed?”

Pa said, “Prairie Belle, you can never tell what a tornado will do. It’ll hit the house but not the barn, or the barn but not the house. You just can’t tell. It’s the luck of the draw—and luck was on our side today.”

“But Pa, what about the barn?”

Pa looked into my eyes. “You can always build new barns, Prairie Belle. And we will. What’s important is that we’re both alive.”

“And what about the dairy cow?”

Pa chuckled and said, “We’ll get another one soon. But I think this time, I’ll take you with me.”

I laughed.

From that day on, I knew that I, Prairie Belle, the belle of the prairie, could survive anything.
Outlaws of the Seas

Part 1. The Golden Age of Piracy

Part 2.
True or False:
Pirates Buried Their Treasure

Part 3.
The Most Fearsome Pirate of All

Part 4.
Girls Could Be Pirates Too
Part 1.
The Golden Age of Piracy
Pirates are outlaws who rob ships at sea. There have been pirates the world over for thousands of years, but the Golden Age of Piracy only lasted about thirty years, from the late 1600s to the early 1700s. During that time, hundreds of pirates sailed the seas, attacking ships, stealing the cargo, and taking sailors and passengers prisoner. Pirates were especially active in the Caribbean Sea.

Part 2.
True or False:

Pirates Buried Their Treasure
Many of us learn about pirates from movies or television. But not all that we see is true. For example, pirates didn’t really bury their treasure. They spent it all as soon as they got to shore!

Some stories are true though. Pirates did often pierce their ears and wear earrings. They believed it improved their eyesight!

Part 3. The Most Fearsome Pirate of All
The most feared and hated pirate of all time may have been William Teach. Known as “Blackbeard” because of the long black beard that covered much of his face, Teach was so frightening looking that most of his victims surrendered without a fight. Even his own crew feared him.

Blackbeard commanded a fleet of four pirate ships in the Caribbean. During his career, he captured more than forty ships and their cargo. To bury all that treasure, he would have needed a very big hole!

Part 4. Girls Could Be Pirates Too
When Anne Cormac of Charleston, South Carolina was sixteen years old, she fell in love with a sea captain named James Bonny. They married and moved to the Caribbean island of Nassau. It was there that Anne Bonny first encountered pirates. Longing for adventure and excitement, Anne disguised herself as a man and joined the crew of a pirate ship. It’s said that she was such a good pirate that no one ever guessed she was a woman!
Sunken Treasures

Part 1. Watery Graveyards
Thousands of shipwrecked vessels have been found in North American waters: in the Pacific Ocean, the Gulf of Mexico, the Great Lakes, and in the so-called “Graveyard of the Atlantic” off the coast of North Carolina. These lost ships include historic warships, huge cargo and passenger vessels, and ordinary fishing boats. But they all have a story to tell. Some of them capsized in violent storms, some were sunk by enemy fire, some fell victim to human error, while some met an unknown fate.

Part 2. Lost and Found
Some shipwrecks are found by accident, but most are found because underwater archaeologists go looking for them. Finding shipwrecks is not easy. There is nothing on the surface of the water to tell an underwater archaeologist where to look. So underwater archaeologists often begin by looking at historical documents, such as records of when a missing ship left port and where it was headed. Once the general location of the wreck is determined, archaeologists will scuba dive to search for it or try to locate it using sonar equipment.

Probably the most famous find was the wreck of the RMS Titanic, the passenger liner that hit an iceberg and sank during its first voyage from England to America in 1912. After years of searching, the remains of the Titanic were discovered off Nova Scotia in 1985.

Archaeologists recover and study objects from the past. Underwater archaeologists recover and study objects found in a body of water.

Sonar equipment uses sound waves to locate objects under water. The sound waves bounce off the object and send a signal back to a screen on a boat. The signal shows where the object is, but not what it is. Divers have to find that out.
Part 1:
The Toy That Changed History
One day in 1878, Bishop Milton Wright brought a toy helicopter home to his sons, Wilbur and Orville. It was not a helicopter as we know it today, just two wooden blades powered by a rubber-band. Nevertheless, the toy fascinated the boys: it showed them that something heavier than air could actually fly. The brothers began dreaming of inventing a machine that would allow man to fly.

Part 2:
The Wright Brothers Try, Try, and Eventually Fly!
The Wright brothers began by making gliders—heavier-than-air machines that could fly.

From 1900 to 1902, the brothers made and flew several gliders. But the gliders depended on the wind to keep them up in the air. The wind also determined the direction the glider would take and how long it stayed aloft. Wilbur and Orville were not satisfied. They wanted to power the glider with an engine so it did not depend on the wind.

In 1903, in Kitty Hawk, North Carolina, the Wright brothers’ dream came true; they succeeded in building and flying the first engine-powered, heavier-than-air machine. Although it only stayed aloft for twelve seconds and traveled just 120 feet, the Wright brothers had invented the first true airplane.

Part 3:
Relive the Birth of Aviation
Visit the Birth of Aviation exhibit and relive the Wright brothers’ quest to build the first airplane. Learn about the brothers’ inventive lives. Fly a toy like the rubber-band-powered one that inspired the brothers’ dream; see exact replicas of their early flying machines; experience the thrill of flying a computer-simulated aircraft. It’s not just an exhibit—it’s an adventure!
Learn about the amazing discoveries of the Hubble Space Telescope.

Part 1: Pictures from Space
The Hubble Space Telescope was launched in 1990 and ever since has been sending astronomers pictures of our galaxy and other far-off galaxies. From an orbit 375 miles above the earth, Hubble circles the earth about every ninety-seven minutes. Named for the American astronomer Edwin Hubble, it is the first telescope to operate from space.

Part 2: Exploring Planets Far, Far Away
Hubble has changed our understanding of the universe. It has taken pictures that prove the existence of black holes, recorded a comet colliding with Jupiter, and provided the best ever pictures of the fiery red planet Mars. But Hubble’s most important discovery may be the existence of galaxies that are twice as old as our own. Astronomers believe that the existence of these older galaxies proves that the universe is still expanding.

Part 3: Need a repair? Call an astronaut!
Hubble was designed to be repaired by astronauts. Since 1990, three spacewalking astronauts have replaced worn out parts of the telescope. Each repair has made Hubble ten times more powerful than before.

Predicto predicts:
Part 1 will be about how the Hubble Space Telescope takes pictures of Earth from space.
Clues: The title, heading, illustration of Hubble in orbit and the caption, and the sidebar about astronomers

Part 2 will be about how Hubble has landed on different planets in the universe.
Clues: The heading (I don’t think Hubble can explore planets without actually landing on them.)

Part 3 will be about how astronauts repair Hubble.
Clues: The heading
PART 1. Welcome Aboard!

When you cross the gangway and step aboard the USS *Constellation*, you enter the unique world of a 19th-century naval vessel. Launched in 1854, the *Constellation* was the last all-sail wooden warship built by the United States Navy. The ship and her crew had many adventures at sea and took part in some of the most important events of the last two centuries, including the American Civil War and World War II. On board the *Constellation*, you’ll find many things to see and do that will help you learn what life was like aboard this historic ship.

Starting at the Top

The *Constellation* has four levels, or decks. Step off the gangway and you’re on the top, or spar, deck. Look up. The sails, three tall wooden masts with rope rigging, rise high above you. When the *Constellation* was built, engines didn’t exist; the wind in her sails powered the ship across the sea. The captain plotted the ship’s course on a nautical map, or chart. At the ship’s wheel, or helm, an experienced sailor steered the *Constellation*. Using a compass, another sailor kept the ship on course. Take a turn at the wheel and imagine what it was like to steer this great ship across the sea.

Near the front of the ship, there is a bell that was rung to let sailors know when to report for work. Eight rings signaled the start of a new work shift, or watch. The sailors worked around the clock in four hour shifts—four hours of work followed by four hours of rest. Ring the bell, and imagine the sailors hurrying on deck to report for duty.

The *Constellation* was a warship, built for battle. To experience her fire power, go one deck below.
Ready, Aim, Fire

Take the narrow ladder one flight down, and you’ll find yourself on the **gun deck**. You’ll see twenty guns, ten on each side of the ship. It took fourteen men and one boy to fire each gun. Some of the boys were as young as twelve. Their job was to run to the far end of the deck, pick up a supply of gunpowder, and deliver it to the gun crews. It became crowded, noisy, and smoky on this deck during a battle. The sailors thought the boys needed the agility of a monkey to do their job. So they called the boys **powder monkeys**. Do you think you would like to have been a powder monkey aboard the **Constellation**?

Young boys called powder monkeys carried gunpowder to the sailors manning the guns.

Home Away From Home

One deck below the gun deck is the **berth deck** where the sailors lived while on board. Between watches, about 150 off-duty sailors at a time ate, slept, and relaxed on this deck. Try out one of the sailor’s canvas hammocks. Would you trade your bed for a hammock?

Down Below

On the bottom, or **orlop deck**, you’ll find the hold, the place where the ship’s supplies were kept. The **Constellation**’s hold was stocked with everything the crew needed for a long voyage: food, water, and other supplies for the sailors, and the canvas, nails, lumber, and rope they needed to repair the ship.

The ship’s jail, or **brig**, was also on this deck. Sailors who disobeyed orders or committed crimes while at sea, were locked up in the brig. Some claim the **Constellation**’s brig is haunted! In 1863, a prisoner reported that he saw the ghosts of two dead sailors there. Maybe they liked life on board the **Constellation** so much that they never wanted to leave!

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**Important Dates in the Constellation’s History**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1854</td>
<td>Launched at Portsmouth, Virginia</td>
</tr>
<tr>
<td>1859</td>
<td>Captured ships that traded slaves off the coast of Africa</td>
</tr>
<tr>
<td>1870</td>
<td>Assigned to the United States Naval Academy as a training ship</td>
</tr>
<tr>
<td>1893</td>
<td>Sailed for the last time</td>
</tr>
<tr>
<td>1894–1941</td>
<td>Docked in Newport (Rhode Island) Naval Training Station</td>
</tr>
<tr>
<td>1942</td>
<td>During World War II, headquarters of the commander of the U.S. Atlantic Fleet</td>
</tr>
<tr>
<td>1855</td>
<td>Sailed the Mediterranean Sea</td>
</tr>
<tr>
<td>1861–1865</td>
<td>Took part in the American Civil War</td>
</tr>
<tr>
<td>1880</td>
<td>Carried food supplies to famine-stricken Ireland</td>
</tr>
<tr>
<td>1955</td>
<td>Retired from service, moved to Baltimore harbor</td>
</tr>
</tbody>
</table>
PART 2. Ahoy, Matey!

About 350 officers and sailors served aboard the Constellation. The captain was in charge, and he was assisted by several officers. The officers each supervised a group of sailors. A sailor’s job included raising and lowering the sails, keeping the ship clean and in good repair, and firing the guns in battle. Imagine that you’re a sailor on board the Constellation.

A Sailor’s Day Begins

It’s 7:00 a.m.: time to wake up and begin your day. You have seven minutes to climb out of your hammock, dress in your uniform, and line up with your fellow sailors on the top deck. At 7:07, an officer inspects you and your mates to make sure that you are neat, clean, and ready for duty. Then morning exercises begin. Jogging? Jumping jacks? No, sailors exercise by climbing the rope rigging to the top of the masts and back down again. And you’d better be quick! The last sailor to finish the climb has to do it all over again! At 8:00, the ship’s bell sounds, and your watch begins. Your first job is to help haul up the ship’s huge iron anchor. The Constellation is about to set sail!

For exercise, sailors climbed the rigging to the top of the mast.
Let’s Eat!

It’s hard work hauling the anchor, trimming the sails, keeping the ship cleaned and repaired, and keeping a lookout for enemy ships, so when your watch ends, you’re going to be hungry. Head for the berth deck where the sailors dine. The ship would have been stocked with fresh food while it was in port. But since there weren’t any refrigerators on the Constellation, the fresh food would eventually run out or spoil. Until they could restock with fresh food, the crew made do with food that didn’t require refrigeration, like dried meat, cheese, beans, and an oatmeal-like cereal called burgoo. But don’t worry; there is plenty of salt and vinegar aboard to improve the taste!

At Ease

After eating, you might want to relax on the berth deck, write letters to your family, or swap stories with your shipmates.

While the 150 sailors shared one large living space, the captain and officers had private rooms. The captain even had his own kitchen and dining room, and the only bathtub on board. Go ahead, while no one’s watching, look around the captain’s cabin.

Then climb into your canvas hammock and get some sleep. In less than four hours, you’ll be back on duty again.

Seasick

If the burgoo that you ate gives you a stomachache, don’t worry. The Constellation has everything on board that the crew needs for a long voyage, even a doctor. The doctor’s office, or sickbay, was stocked with medicine and medical and dental tools, like the pliers he used to pull out an aching tooth. Bet you’re glad you just have an upset stomach!
Giganotosaurus:  Giganotosaurus lived about 100 million years ago in South America. The Giganotosaurus was a meat eater that walked upright on two legs. Scientists think that T-rex was smarter than Giganotosaurus because it had a larger brain. Now that’s scary!

When Dinosaurs Ruled

Triassic Period
251 to 203 million years ago dinosaurs appear.

Jurassic Period
203 to 146 million years ago dinosaurs flourish.

Cretaceous Period
146 to 65 million years ago at the end of which dinosaurs disappear. Humans first appeared about 200,000 years ago.

T-Rex:  The meat-eating Tyrannosaurus rex roamed North America from 68 to 65 million years ago. How could another dinosaur escape a hungry T-rex? Run. Scientists think the T-rex was slow, reaching a top speed of about 20 miles per hour.

DINOSAURS: UNCOVER THE MYSTERY!

Although dinosaurs roamed the earth for nearly 200 million years, there were no humans around to tell their story so many mysteries about them remain unsolved. How did dinosaurs live? Why did they disappear? How many different kinds of dinosaurs were there? What was our planet like in the age of the dinosaurs? It has only been within the past 150 years that scientists, called paleontologists, have been studying dinosaurs and trying to solve the mysteries of these fascinating creatures.

Have you ever thought about becoming a paleontologist and studying dinosaurs? This exhibit will let you imagine what that would be like. Watch a video that shows paleontologists at work. Learn how to tell dinosaur fossils from ordinary rocks. Experience the excitement of discovery as you dig up dinosaur bones, measure them, and assemble the skeletons. Touch a 100-million-year-old dinosaur skull, bones, and teeth and see dinosaur eggs in their seven-foot-long nest. Examine dinosaur footprints, and predict the size of the creatures. You can even hear what a dinosaur might have sounded like!

And you’ll see thirteen full-size dinosaur models, including a forty-foot-long Tyrannosaurus rex, a forty-five-foot-long Giganotosaurus, and the smaller Astrodon johnstoni that once lived in Maryland.

DINO HUNTING

Dinosaurs roamed throughout North America, but the most likely places to find dinosaur fossils today are: Montana, Utah, Colorado, and the Connecticut Valley, where the first dinosaur footprints were found in 1902.
2. YOUR BODY: THE INSIDE STORY

Dinosaurs may have been bigger (okay, a lot bigger), but we humans are fascinating creatures too! Explore your own body and find out how everybody’s body works. By taking a journey through a typical day and learning how different organs and bodily systems work, you’ll find out how amazing your body is and what you can do to keep it healthy.

Begin by walking through a tunnel filled with the sights, sounds, and smells that recreate the experience of going from sleeping to waking! Then see a movie taken inside a human body and find out how the brain controls every bodily activity. Watch blood flowing through a beating heart. Hear the disgusting sounds the digestive system makes. Learn the way your bones protect important organs like your heart and lungs. Assemble a human skeleton. Explore your five senses as you learn why things feel warm or cool to the touch or why you can lie on a bed of nails, but feel no pain.

Discover just how unique you are by taking your fingerprints. Did you know that no two people have the same fingerprints? That’s why fingerprints are often used to catch criminals.

Learn how to keep your body in top shape. Find out how to avoid the germs that are all around us. Take a test that predicts your age based on your health habits. If you don’t exercise regularly or eat a lot of fruits and vegetables, you might be older than you think!

COUGH, COUGH, SNEEZE. LOOK OUT! OTHER PEOPLE’S GERMS TRY TO ENTER YOUR BODY EVERY DAY. BUT YOU CAN PROTECT YOURSELF AGAINST THESE MICRO-INVADERS. HINT: WASH YOUR HANDS!
Why do you think people do these dangerous jobs?

There are probably many answers to this question, but one of the main reasons is because the men and women who do these jobs want to help others. Lucky for us, they use their courage and training to make our communities safer.

Part 1
Fighting Fires

Firefighters are among the most well-respected people in a community. Why do you think people respect firefighters? For starters, they risk their lives to help others. Being a firefighter is not an easy job. Firefighters must react quickly in dangerous situations. Fires can happen any time of the day or night, so firefighters have to be ready at a moment’s notice. These special men and women also work very long hours to keep their communities safe. So the next time you see a firefighter, give a wave to show your appreciation for all of their hard work.

Part 2
Fighting Crimes

Police officers are another example of workers who give back to the community. Like firefighters, police officers also risk their lives to help others. Police officers fight crime. They stop crimes, enforce laws, solve mysteries, and help others in need. Being a police officer is hard work. People need help day and night. This means that like firefighters, police officers always have to be ready to respond to emergencies.

Part 3
Saving Lives

Emergency medical technicians, or EMTs, also work in our communities. If you ever need an ambulance because of a medical emergency, an EMT is the person who would respond. For example, EMTs are usually the first people to come to the rescue in an emergency such as a car accident. EMTs are trained to assess the situation and call for further help. Many firefighters and police officers have some EMT training. Just like firefighters and police officers, EMTs also put their lives at risk to help others. They can be exposed to contagious diseases, be involved in traffic accidents, or have to respond to emergencies in dangerous areas.
PART 1: What is Nutrition?
Have you ever heard the word nutrition? Most likely you have. Nutrition is the process of absorbing nutrients into your body from the foods you eat. Why is nutrition important? Eating healthy foods helps you grow and helps your body work at its best. Proper nutrition can help prevent many illnesses. It can also make your bones stronger and give you energy. Good nutrition includes eating plenty of fruits and vegetables. Let’s take a look at the food pyramid to find out what else we should include in a healthy diet.

PART 2: The Food Pyramid
The food pyramid includes six food groups—the grain, vegetable, fruit, oils/fats, dairy, and meat and bean groups. It is important to vary what you eat and try to include items from each of the food groups. Think about what you normally eat in a day. Where does it fit into the food pyramid? Do you eat foods from each of the groups? Do you eat enough from each group? And don’t forget snacks. They are important too. However, instead of choosing sugary snacks, try snacks that would fit into one of the food categories. For example, an apple is a healthy choice for a snack and would fit into the fruit category on the food pyramid. Just remember that how much you eat from each group depends on your age and how much exercise you get.

PART 3: Staying Healthy
Staying healthy isn’t entirely about eating well. You also need to have exercise as a part of your daily activities. Getting exercise isn’t as hard as it seems. You can take a walk, ride a bike, or play tag. These are all great ways to get exercise. The key to exercise is to get moving. When you combine exercise with a healthy diet, you will become the best that you can be.
Signing
Off!
American
Sign
Language

By Kathleen Collins
A Silent World

Think about what you hear in different places. In school, you might hear your teacher writing on a chalkboard or the class next door reciting poetry. At the park, you might hear birds singing and the crack of a bat as children play baseball. At home, you might hear a television in the living room or someone leafing through the pages of the newspaper. These are all probably familiar sounds to you. But what if you couldn’t hear them? What if you couldn’t hear your teacher? What if you couldn’t hear the birds sing? What if you couldn’t hear your mom call you to dinner? That is what it is like to be deaf or hard of hearing. The world is silent or muffled.

That is where American Sign Language (ASL) comes in. This is the language of the deaf and hard of hearing. People use their hands and facial expressions to communicate with one another. ASL is one of the most popular languages in the United States because not only is it spoken throughout the deaf community, it is used by their friends and family members and by people who are just interested in learning it.

Did you know?
ASL isn’t the only form of sign language. Many other countries, such as France, Israel, and Russia, have their own official sign language.
Humankind’s Oldest Language

Historians think the earliest humans used signs to communicate with one another before they could speak or create languages. This makes a lot of sense when you think about it. Signing comes very naturally to us at an early age.

A hungry baby might point to his or her mouth to show that he or she wants more food before he or she can use words to ask for more.

People who are deaf or hard of hearing have been discriminated against. Plato and Aristotle, two famous writers from ancient Greece, believed the deaf were incapable of learning. Others believed deafness was a curse. In many European countries throughout the Middle Ages and the Renaissance, the deaf did not have the same rights as other citizens, such as the right to own property, participate in government, or receive an education. It wasn't until the 1600s that people began to teach methods so the deaf could use signs to communicate with others.

In 1754, a French abbot named Charles Michel de l’Epee formed the first school for the deaf in Paris. He had watched deaf Parisians using a variety of hand signs to communicate with one another. He called their language Old French Sign Language. He learned the signs used by the deaf, added to them, and made a more standardized sign language called French Sign Language (FSL) that anyone could learn and use. Abbe de l’Epee’s Institution Nationale des Sourds-Muets
de Paris (National Deaf-Mutes Institute of Paris) was a free school. He believed the deaf needed a place to learn by seeing what other children learned by hearing.

By the late 1700s, many Americans were concerned about the lack of schools for deaf children in the United States. Several communities of deaf people grew up using signs, but there was no standard language that the deaf could use. A man named Thomas Hopkins Gallaudet became interested in this problem after meeting the deaf daughter of a family friend. In 1815, he was asked to travel to Europe and bring home a method for teaching the deaf to communicate. Gallaudet met Abbe Roche Ambroise Sicard, who was both a student of Abbe de l’Epee and a teacher at the school for the deaf in Paris. Gallaudet studied FSL and brought one of the school’s teachers, Laurent Clerc, back to the United States to open the country’s first school for the deaf in Connecticut in 1817. The two men adapted FSL to the English language and added signs commonly used by the deaf in the United States to create ASL.

Did you know?

A form of sign language was used in the United States before Europeans arrived. American Indians spoke many languages, so the different tribes used easily recognized signs to communicate with one another to trade and share news. Later they also used signs to speak with Europeans.
Learning to Spell

American Sign Language is a complex language of hand gestures that represent letters, words and ideas, and facial expressions. Children who speak ASL use the American Manual Alphabet (AMA), which has a hand sign for each letter of the English alphabet, to finger spell words and phrases. When someone finger spells using the AMA, the process is the same as a hearing person spelling each letter in a word or sentence as he or she speaks.

People who speak sign language learn the same alphabet you learned. ASL speakers must learn individual letters to finger spell a lot of words or ideas that do not have their own gestures. If you want to introduce yourself to someone new, give your street address, or say where you go to school using ASL, you have to spell out each word in your conversation.

Let’s take a look at the AMA. If you look at the AMA gestures for some letters, they make sense for the letters that they represent. Can you see the letters C, L, O, V, and W in their gestures? This makes it easier to recognize signed letters and associate them with printed letters. Two other letters need a little more gesturing when you sign them. The alphabet chart shows that the letters J and Z have arrows that show how to move your hand while forming the letter. When making a J, you trace a hook shape in the air with your pinky finger. To make a Z, you trace a zigzag in the air. From your perspective, the J and Z will appear correct, but they will be backward to the person to whom you are signing.

Sign it out!
Practice making the gestures for the letters in your name so you can sign it to a friend or family member.

Rosita
Counting to five in sign language should look pretty familiar since you have probably counted in a similar way with your fingers hundreds of times. Counting the rest of the way to ten is also easy. You just have to pull down one of your raised fingers, starting with your pinky, to show each of the numbers 6–9 in a simple pattern. You can show the number 10 by giving a thumbs-up sign and wiggling your wrist in a circle.

**Signing Thoughts and Ideas**

Finger spelling is only one part of ASL. People learn how to sign whole thoughts and ideas with gestures and facial expressions that represent words. Learning the gestures for whole words makes speaking in sign easier. Many of the gestures used in ASL came from FSL while others are American originals. Many of the signs are common-sense gestures that represent the word, action, or emotion they express. A person who does not know ASL can figure out a lot of words in sign. Let’s learn a few signs and phrases.

How do you think you sign I? You would point at yourself! You point your index finger at your chest. What if you wanted to sign you to someone? You just point your index finger at the person to whom you are talking. In the deaf community, pointing is not only polite, but necessary.

The sign for the word baby is quite simple. Have you ever seen someone hold a newborn baby and rock it back and forth? That is exactly how you make the sign for baby in ASL.

Some actions are easy to sign too. What do you do when you brush your teeth? You bring the toothbrush up to your
teeth and brush. When you sign the action “brush teeth,” you do something similar. You make a fist with your index finger pointing out, then make a brushing movement back and forth across your mouth twice, so it looks as though you are brushing your teeth.

Let’s look at the sign for a feeling such as love. You may have some guesses about how to sign this feeling, but are they correct? When making the sign for love, you cross your hands and arms over your heart in the middle of your chest as if you are hugging yourself. Users of ASL put these and thousands of other gestures together to make whole sentences. Can you figure out how you would say “I love you” in ASL?

It’s important to understand that American Sign Language is not just English translated into hand gestures. It is a separate language with its own grammar, punctuation, and word order. ASL even has regional dialects. A dialect is a type of local speech. People from different neighborhoods, cities, and states have different ways of speaking. Just as someone from the Northeast says words or sounds differently from someone from the South, speakers of ASL from different parts of the country may sign slightly differently.

How is ASL different from spoken and written English? As a hearing person, when you meet someone new, you might say “My name is Trey. What’s your name?” Speakers of ASL change the order of words in their sentences. Instead of signing the word what or spelling the word is, they shorten the greeting to “My name Trey. Name you?” You can see that in your introduction, you leave out the word is rather than spell it. When you ask for your new friend’s name, your facial
expressions will help fill in the missing word *what*. Instead of signing *what*, you scrunch up your eyebrows as if asking a question while making the signs for the words *name* and *you*.

ASL also has compound words that make sense in context to other signers. For example, in spoken English, we have the words *husband* and *wife* to discuss two people who are married. In ASL, speakers create compound words to represent *husband* and *wife*. They combine the sign for *boy* or *girl* with the sign for *marriage*. An ASL speaker understands that *boy* plus *marriage* equals *husband*.

Facial expressions and body language are very important to ASL speakers. These nonverbal cues help signers fully communicate something, such as a question, and they add emphasis to the emotion or feeling that the speaker is trying to express. Think about when someone reads a story aloud to you. Readers make stories more interesting when they read expressively and change the volume or emotion in their voices as they read aloud. Exaggerated facial expressions and body language make ASL more interesting for its speakers and their listeners.

**Did you know?**

Scientists designed mechanical finger-spelling hands that can accurately sign the letters in the AMA for the deaf-blind. Human interpreters can get tired of finger spelling during long lectures or conversations, but the mechanical hands do not. Interpreters just type messages on a keyboard, and the mechanical hands form the letters while a deaf-blind user feels the machine’s movements.

To make the sign for *husband*, first make the sign for *boy*. Place your hand against your forehead palm side out, then slightly bring your thumb to the rest of your fingers. Then clasp your hands together in front of you to say *marriage*.
ASL has one drawback. It only works for the deaf and hard of hearing who can see. It is a very visual language, and if someone is also blind, he or she cannot see gestures or facial expressions. Such a person could touch the speaker’s hands and feel what letters the signer is making, but most ASL gestures are too elaborate for the deaf-blind to feel and understand what a signer is saying. The deaf-blind use finger spelling to do all of their communicating. You may have heard of Helen Keller, a deaf-blind person whose story about learning to finger spell is famous.

**Helen Keller’s Miracle**

Helen Keller was born a healthy baby on June 27, 1880, in Tuscumbia, Alabama. At nineteen months old, she became very sick. She had a high fever for several days, and her parents thought she might die. At the time, people referred to her illness as brain fever, but doctors today think she may have had scarlet fever or meningitis. Helen’s fever eventually went away, and she got better. However, her mother noticed something was wrong. Helen didn’t respond to noises such as the dinner bell or her name being called. When something was waved in front of her face, Helen’s eyes didn’t follow it. Helen’s sickness had made her blind and deaf.

As Helen grew up, her situation frustrated her and her family. She threw temper tantrums and fought with, bit, and kicked everyone, all because she could not make others
understand what she wanted. She was called a “wild child,” and some people thought she should go to a special home for the mentally ill. By the time she was six, her parents wanted to find a way to help Helen communicate with the world. They asked a prominent man who worked with the deaf, Alexander Graham Bell, to recommend a way to teach Helen to communicate. He put the Kellers in touch with the Perkins School for the Blind in Boston, and the school sent a young woman named Anne Sullivan to teach Helen.

Anne Sullivan was an orphan who had become blind by the age of seven. She was sent to the Perkins School for the Blind and received an education and some help with her vision. When she was fifteen, she had two surgeries that partially restored her sight, allowing her to see for the first time in almost ten years. While at school, she learned sign language and how to read Braille, and she was a star student.

Teaching Helen was not an easy task! Anne taught Helen how to finger spell the manual alphabet, but Helen never seemed to realize that she was spelling words. Helen’s behavior also made it difficult to teach her. Whenever she became frustrated or angry with Anne, Helen’s parents would interrupt and do anything they could to calm her down. Anne had to ask if she and Helen could live separately from the family so she could try to tame Helen’s wild behavior without the family interfering.

Anne continued working with Helen, trying to make her obedient and helping her to understand finger spelling. Anne finally had a major breakthrough on April 5, 1887, and she wrote about it to her friend Sophia Hopkins that day.
April 5, 1887.

I must write you a line this morning because something very important has happened. Helen has taken the second great step in her education. She has learned that everything has a name, and that the manual alphabet is the key to everything she wants to know.

In a previous letter I think I wrote you that “mug” and “milk” had given Helen more trouble than all the rest. She confused the nouns with the verb “drink.” She didn’t know the word for “drink,” but went through the pantomime of drinking whenever she spelled “mug” or “milk.” This morning, while she was washing, she wanted to know the name for “water.” When she wants to know the name of anything, she points to it and pats my hand. I spelled “w-a-t-e-r” and thought no more about it until after breakfast. Then it occurred to me that with the help of this new word I might succeed in straightening out the “mug-milk” difficulty. We went out to the pump-house, and I made Helen hold her mug under the spout while I pumped. As the cold water gushed forth, filling the mug, I spelled “w-a-t-e-r” in Helen’s free hand. The word coming so close upon the sensation of cold water rushing over her hand seemed to startle her. She dropped the mug and stood as one transfixed. A new light came into her face. She spelled “water” several times.

When Helen finally realized that the letters made up words that were the names of objects, her education really took off. People said that Anne Sullivan had performed a miracle by teaching Helen to speak. Helen Keller became one of the greatest supporters of education and opportunities for the deaf and blind in the world.
Signing in Different Languages

American Sign Language is just one of many sign languages in the world. Most countries have their own sign language although many of them may be related. Remember how ASL grew out of FSL? FSL has had an impact on other sign languages in Europe such as Irish and Spanish. FSL is taught in French-speaking parts of Canada, but ASL is taught in the English-speaking parts. ASL has influenced sign language in Mexico. In Asia, Japanese Sign Language is the parent of other sign languages such as Korean and Taiwanese sign languages.

Would it surprise you to learn that even though people in the United States and Great Britain both speak English, their sign languages are very different? It's true! American and British speakers understand one another in conversations, but ASL and British Sign Language (BSL) speakers may not. Let's take a look at some ways that ASL and BSL differ.

Sign it!

How would you sign your name in BSL? Do you think one alphabet is more difficult to sign than the other?
First, even the manual alphabets of the two languages are different. The BSL alphabet uses two hands to sign letters while the ASL alphabet uses only one hand. Compare the British finger spelling alphabet with the American one previously shown in the text.

These two sign languages, though both based on English, differ in more complex ways too. Remember the signs for *husband* and *wife* in ASL? You make a compound word using the signs for *boy* or *girl* and the word *marriage*. In BSL, the sign is the same for both *husband* and *wife*. You make a gesture as though you are putting a wedding ring on the ring finger of the left hand. BSL speakers understand that you are talking about your husband or wife with that gesture.

### Where to Learn ASL

It is never too late or too early to learn ASL. Did you know that many parents are learning very basic sign language to use with babies and toddlers who hear perfectly? Most kids don’t learn how to speak until they are between fourteen and twenty months old. It can be very frustrating for a baby who cannot speak to tell mom or dad what he or she wants. It is equally frustrating for mom and dad when they don’t understand what their baby wants. Sign language can help babies and parents communicate about simple things such as being hungry or wanting a toy. Some researchers even think learning sign language can help children learn to speak more quickly.
Remember Thomas Hopkins Gallaudet and Laurent Clerc? These two men were pioneers in the education of the deaf in the United States. When they returned from France in 1817, they formed the first permanent school for the deaf in Connecticut. At their school, they developed ASL, taught students to use signs, and trained teachers who went out and opened new schools for the deaf in other parts of the country. Their original school is still open and is called the American School for the Deaf. It is a model for other deaf schools around the country. Many deaf schools teach children from an early age through high school and even offer extra classes for older students or the families of their students.

The work of the Gallaudet family did not end with elementary and secondary schools. In 1857, Edward Minor Gallaudet, Thomas’s son, was invited to become the superintendent of the new Columbia Institution for the Instruction of the Deaf and Dumb and Blind in Washington, D.C. He had bigger plans for the school than just teaching younger children, and he dreamed of providing the deaf with a higher education. Edward got his wish in 1864 when President Abraham Lincoln signed a bill that allowed the institute to grant college degrees to students at the National College for the Deaf and Dumb. Edward was the first president of the first college in the world for deaf students. The name of the college was changed to Gallaudet College in 1954 to honor the work Thomas Hopkins Gallaudet did to bring education to the deaf in this country. The college achieved university status in 1986, and it is still the world’s only university that primarily serves the needs of the deaf community.

Want to learn more?
Check out Gallaudet University’s website at www.gallaudet.edu to learn more about the university and its programs.
Gallaudet not only provides a college education for deaf and hard-of-hearing students, but has programs for hearing students as well. A small number of hearing students who are interested in working with the deaf community are accepted to the school every year. These students may be interested in teaching deaf and hard-of-hearing children or in working in an environment where they will work closely with the deaf community. It’s not easy though! Hearing students must already have a background in ASL before attending Gallaudet.

Today some children no longer attend special schools for the deaf. Many school systems are better prepared to deal with the needs of deaf students. The schools may have special teachers or aides who can act as interpreters for deaf students in mainstream classes, or they may provide deaf students with extra materials that they can read. Whether they go to a special school or the one down the street, deaf children have more opportunities than ever to receive a good education.

You don’t have to be deaf or attend a special school to learn ASL; there are many opportunities for children and adults to learn sign language! Some schools even offer ASL as an option for a foreign language class. Can you imagine learning to speak in sign instead of taking Spanish or French? If your school does not offer ASL, there are probably other resources in your community. You can even learn ASL on the Internet through Web sites that provide basic lessons and videos of people signing so you can see exactly what each sign should look like.

Did you know?
Paul Hubbard, a football quarterback at Gallaudet in 1894, is credited with starting the football huddle. He and his teammates feared the other teams would learn the signs for different plays, so they huddled together to hide their hands.

Learn at Home
Visit www.lifeprint.com for free ASL lessons.
Signing Off

Whether you currently know someone who is deaf or hard of hearing, knowledge of ASL is a valuable tool that may come in handy someday. There are more than 11 million deaf or hard-of-hearing people in the United States, so there is a good chance you will meet someone who communicates in sign language. Imagine if a child your age moved into a house up the street and he or she was hard of hearing. How do you think it would make that child feel to know that there was someone his or her age that he or she could speak with in this new place? You could also help an aging relative or a neighbor who is losing his or her hearing by teaching him or her sign language. Many people who know sign language volunteer in their communities as sign-language interpreters to help everyone enjoy events and other special occasions. How do you think your knowledge of sign language could help someone you know?
Signing Facts

Some signals used in baseball have their roots in the deaf community. William “Dummy” Hoy was the first deaf person to play professional baseball, and he is often credited with inventing the hand signals used during the game.

According to stories, Hoy couldn’t hear what the umpires yelled when he was at bat, so he didn’t know whether pitches were called as strikes or balls. He asked the third-base coach to raise his right hand for a strike and his left hand for a ball. Soon umpires were using these and other hand signals to alert both Hoy and the spectators about what the calls were on the field.

Have you ever been told “Don’t talk with your mouth full”? This is because doing so makes it difficult for you to speak and for others to understand you. In the deaf community, signing with your hands full is considered rude. Holding objects in your hands or wearing a lot of jewelry makes it difficult for you to sign properly and distracts the person to whom you are speaking. You should always make sure your hands are clearly visible when talking to someone in ASL.
In the deaf community and when speaking ASL, it is polite to stare. Your eyes are your primary tool for receiving information, so you need to stare at those who are signing to you. Looking away from someone who is talking to you is very rude and is the equivalent of sticking your fingers in your ears to indicate that you are not listening to someone.

There are two other forms of sign language often used in the United States. Signing Exact English (SEE) uses the gestures from ASL but uses them to speak grammatically correct English, or how a hearing person normally speaks or writes English. Children often learn SEE in schools so they can learn to read and write in English. Pidgin Signed English (PSE) is a hybrid of SEE and ASL and is often used between a deaf person and a hearing person who knows the signs for words but not the ASL grammar. When using PSE, people use the proper word order for English, but they usually leave out words such as a, at, and the, and word endings such as –ing, –ed, or –ly.
Simple Signs

Here are a few simple signs to get you started on your knowledge of ASL!

Hello/Goodbye
Wave your hand like you normally would to say hello or goodbye.

Sad
Pass your hands in front of your face while frowning.

Happy
Circle your hands in front of your chest.

Please
Sweep your right hand down across the left side of your chest.

Thank you
Bring your right hand out from your mouth as if blowing a kiss.
Sources:

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