Juan's Animals

On the first day of fourth grade, Juan had a question for his family: what did his animals do when he was at school? Juan had five pets: a dog, a cat, a guinea pig, an iguana, and a turtle. His mother and siblings said they probably napped. His father said they probably napped and hatched schemes about how to overthrow their owners. Juan thought these possibilities were all likely. However, he wanted to know for sure. So he set up video cameras.

He put one camera in the living room, where his dog Cody slept. He put another in the bathroom, where Finn's litter box was. The guinea pig, Myron, lived in Juan's bedroom; he put a third camera on the dresser. Iggy and Tut, the iguana and the turtle, lived in the garage. Juan placed the last camera in front of their two tanks. Then he sprinted to the school bus.

That night, Juan and his mother and siblings sat down to watch the video footage. All the animals were where they should be. Cody and Finn lay at Juan's feet. His father went into the kitchen to make dinner. Juan had barely pressed play on the first recording when he heard his dad yelp.

"I think I know what the pets do," he said. Everyone filed into the kitchen. They saw the evidence: flour, eggs, and milk were spilled all over the floor. Five distinct sets of animal feet had walked across the mess, leaving their hungry little tracks.
A Nest Made of Paper

People aren't the only creatures that make paper. Paper wasps, yellow jackets, and bald-faced hornets do, too.

In the spring, the insect queen, who has spent the winter hibernating, begins her nest. Paper wasps and bald-faced hornets build their nests on tree branches and under roof overhangs and other protected places. Yellow jackets build their nests in the ground.

The queen chews up wood and plant fibers and spits them out in her chosen site. Using this pulp, she builds up cells that look like the six-sided wax cells that bees make. She lays her eggs in them. When the eggs hatch and mature, they grow into workers who help build the nest.

Eventually, the nest can grow to be about the size of a basketball, somewhat elongated at the bottom, where the entrance is. The cells inside are enclosed in layered sheets of paper that wrap around the outside. Though the paper looks delicate, it is strong and waterproof. It is usually light gray and brown. It is finely striped, each stripe coming from a different kind of chewed-up material.

As the weather turns cold, most of the insects die. Only the new queens survive. They leave the nest to find a warm place to hibernate for the winter. The nest is empty, and will not be used again. In the spring, the new queen starts fresh.
Storm at Sea

One day, Edgar and his children, Jim and Morgan, were sailing their boat. The sea was calm and bright. Morgan, the youngest, pointed to a strange puff of gray cloud on the horizon.

As the three of them watched, the small cloud grew quickly into a mass of dark clouds that covered half the sky. Edgar jumped up and began taking down the sail. "Help me, kids!" he shouted. "It's going to blow hard!"

Jim helped Edgar to roll up and tie down the sail, while Morgan quickly fastened safety lines to the front and back of the boat. Then Morgan got out the foul weather gear. She came up carrying three yellow rain slickers and orange life jackets.

Hurrying, they all put on their gear. By now, the air was cold and the dark clouds stood directly overhead. It was dark as night even though the sun was still somewhere beyond all those clouds.

Fat, ice-cold raindrops started hitting the deck with harsh clicks. Then, in an instant, the rain was coming so hard and fast that it was hard to get a breath. A bolt of lightning flashed blue-white on the black horizon.

Edgar shouted close to Jim's ear over the rumbling growl of thunder. "I'll take the wheel. We're going to ride this storm out!"

The next few hours seemed to last forever. The children watched as Edgar kept their boat pointed into the waves so that their boat did not flip over. When the storm finally began to break up, it was sunset, but the rays of the sun felt like the dawning of a new day.
Ice Cubes

Americans love ice cubes! They love to put ice in water, iced tea, and soda. Some people love to chew on ice cubes, too!

Still, not all people around the world like ice cubes. People in other countries don't love ice cubes like we do. They think that ice cubes take up too much room in a glass. Some worry that the ice will melt and make their drink watery. Some don't like ice because they prefer warm drinks like tea or coffee. Yet others don't like ice cubes because they are worried that the ice cubes are dirty.

Some people in other countries don't like ice in their drinks because they just aren't used to it. This was also true for Americans less than one hundred years ago.

Before there were refrigerators, people had ice boxes. Ice boxes were small chests that people would store food in to keep it fresh. Because there was no power, people would buy big ice blocks to place in the ice box. The ice would keep the ice box and the food fresh and cool inside.

Over time, the ice would melt and be a soggy mess. People needed better and less messy ways to keep food cool to prevent it from spoiling. Finally, the refrigerator was invented. Ice blocks were no longer needed to protect food. But people found new ways to use and create ice.

As a result, ice cubes became trendy. Soon magazines and cookbooks had directions for making ice cubes and recipes for using the cubes in drinks and food. Before long, ice cubes in drinks became an American custom!
Deborah walked along the beach by herself at sunset. The wind blew her hair every which way. She shivered, hugged herself in the thick sweater she wore, and turned her head back to look at the ocean. The sun was setting behind a cloud, turning the edges of the cloud bright red and gold. Some of the red-gold light shone on the water.

Watching the sun as it set, Deborah had a sorrowful feeling. Time was passing so quickly. It was the close of another day. Already, it was almost the end of summer. Then it would be autumn, the trees turning color and the beach standing empty even at noon.

As Deborah watched the horizon, the bottom of the sun touched it. Before she could blink more than four or five times, it was already half sunk. As it sank into the Pacific Ocean, it turned a darker red, almost like blood.

Seagulls began crying shrilly. Deborah shivered again in the cold. She wondered if the seagulls were complaining that summer was ending, that soon the cold winter winds would be here. Then they would be the only creatures on the beach with no one feeding them scraps of food. Sighing, Deborah turned back the way she had come. Her time at the beach was over.
Hobos

Once there were people who did nothing but ride the freight trains back and forth across America. These people were called hobos. Hobos were very common during the Great Depression.

Hobos lived on the road, and many people looked down on them for the way they lived. They didn't have steady jobs. They cooked their meals over campfires. They smoked old cigarette butts they found in the gutter. They wore patched and dirty clothing. Sometimes they held their trousers up with ropes instead of belts. Their shoes were broken down, often with more holes than leather.

But hobos knew America the way nobody else knew it. They knew the silent majesty of purple mountains glimpsed at dawn or sunset. They knew the arid deserts and the endless prairies, too. They knew the deep black pine forests and amber waves of grain blowing in the wind. They knew the endless fields of golden poppies in California. They knew about the cold and the heat, the rain and the snow, the wind and the stillness in every corner of America. They knew all about hunger and thirst, about suffering and love, about dreariness and glory. Most of all, they knew what it was like to come and go as they pleased.
The Great Inventor

Garrett Morgan was born over one hundred fifty years ago. He grew up in the South on his family's farm with his brothers and sisters. After he left the farm, he became famous for fixing and inventing things. He improved the sewing machines in factories. He also found a way to make curly hair straight. But his best inventions saved lives.

Morgan invented the stop light. One time he saw a car hit a wagon. He wanted to do something so it would not happen again. So, Morgan came up with the idea for a light to direct traffic. His light is now used all over the world.

Morgan also invented the gas mask. A gas mask protects the person who wears it from bad things in the air. Fire fighters wear gas masks so that smoke does not harm them. People who work in tunnels and caves wear them in case there is a gas leak. Soldiers and even regular people wear them in times of war.

Even though Morgan's inventions have saved many lives, he did not always get credit for them. His father was white, and his Mother was Black and Native American. While he was alive, many people were biased against people who were Black or Native. This bias was bad everywhere, but even more so in the South.

It has taken many years for Morgan to get the credit he deserves. But now we know who he was. To this day, he inspires others to invent things, too.
Black Cats

Are black cats treated as good luck or bad luck? It depends on who you ask! In America, many people think of black cats as bad luck. Specifically, they don't want a black cat to cross their path. They think that the crossing black cat will cut them off from good things and wealth. Beliefs like this are called superstitions.

Superstitions about black cats are interesting. They vary by culture and by country. Although black cats are considered bad luck in America, they are treated as good luck in Britain and Japan. In Germany, it depends on the path the black cat walks. If the black cat comes from one way, it is good luck. If the black cat comes from the other way, it is bad luck.

Can black cats really be good luck and bad luck at the same time? Well, that's the thing with superstitions. They are unfounded beliefs that are shared by many people. They have no basis in truth. The only thing really affected by these false beliefs are the black cats themselves. Sadly, in part because of untrue beliefs, black cats in America are more likely to be given to an animal shelter. Black cats are much less likely to be adopted, too.

So, it's black cats that should feel unlucky. The next time you see a black cat you should treat it nicely. You might even give special thought to adopting a black cat.
Jewelry

I make jewelry out of anything I can find around the house. My mom helps me sometimes. I also buy things that I need from the hardware store and from the craft store. Making jewelry is not hard, but it takes a lot of time.

I make things that I think people would like to wear. I always ask a person a few questions if they want me to make something for them. I like to know what their favorite color is and if they like plain jewelry or jewelry that sparkles. I also like to know if the jewelry is for a young person or an old person. Everyone is different, so I want to make jewelry that they will like.

I get a lot of orders around the holidays. I think most people like to give the jewelry as a gift. When I finish making the jewelry, I put it in a small box with a card that has my name and number on it. I hope that the person who gets the jewelry will like it. If they see the card maybe they will call me and ask me to make more jewelry for them.
My Sister and I

From the moment my sister wakes up, she won't stop talking. She makes messes, dresses in mismatched colors, plays cymbals and drums, and often smells like wet dogs. She's the loud one. I, on the other hand, like quiet activities. I especially like drawing, which requires silence, unlike drum playing and singing.

One morning my parents asked me to watch her while they were away. They said Aunt Betsy would be here for emergencies, but that I should make sure she didn’t hurt herself.

That morning after Aunt Betsy's arrival, I settled in to work on a new graphic novel about my favorite super heroes, when suddenly there was an enormous racket. I looked out the window to see my sister in the backyard using a hammer and a saw at the same time, piles of wood at her feet.

"Go check on her!" Aunt Betsy called. Ugh, I thought. I was annoyed.

I went and asked her what she was doing, suggested she might hurt herself, and asked her if she wouldn't rather draw some pictures. "Nope," she said, not answering my first question.

I sighed and sat on the ground with my paper and pencils, cringing every time there was a crash or a crack, and day-dreamed about libraries and desert islands.

When Aunt Betsy called us in for dinner I looked up to see something that looked somewhat like a stage. My sister was beaming proudly and calling it a magic theater. "So?" I said.

That night it rained hard. In the morning, I looked out my window to see that winds had collapsed the structure, the curtains were soaking wet, and pieces were scattered about. I smiled to myself.

But then I overheard my sister crying and saying that the saddest thing was that she was going to ask me to paint the backdrop.
I stopped for a moment. Then I picked up her hammer and said, "Hey, let's fix the magic theater."
Islands

An island is a body of land that has water all around it. It does not touch any other land. Most islands form by nature. There are different kinds of natural islands.

One type is the oceanic island. They are made by volcanoes under water. When a volcano erupts deep in the ocean, the water cools the lava quickly. It builds and builds over many years. When the top of the volcano breaks through the water's surface, it becomes an island. Iceland is an example of this type of island.

Coral islands are another type of natural island. Corals are tiny sea animals that have hard surfaces. They grow in groups on top of each other. They also grow up toward the surface of the water. Rocks, sand, and dirt get trapped in the coral. When the coral breaks through the water, it becomes an island. Some coral islands grow in rings around volcanic islands. The coral thrives in the warmth from the volcano. These ring islands are called atolls.

A third type is the continental island. These islands start off as part of a continent, or large land mass. Over time, the Earth's surface, or crust, moves slowly. The crust can move so much that it causes part of the land to break off from the rest. The fragments can then become islands. Greenland is one example of this kind of island.

Many island chains have more than one type of island in them. For example, Hawaii has both volcanic and coral islands, including atolls. New Zealand and the islands near it began as continental islands but volcanoes are adding to them, too.
The Runner

Sarita saw the runner every morning on her way to school. The runner was not much older than Sarita's big sister. She wore a long, black braid hanging down her back. More interesting were her clothes: red glitter sneakers, a shiny purple jumpsuit with a yellow belt, and a gold tiara.

Aside from this strange outfit, there was nothing out of the ordinary about her. She ran and breathed and obeyed traffic laws just like all the other runners who jogged around the neighborhood.

Every day for weeks, Sarita wondered about her. She made up theories about why the runner dressed so oddly. Maybe she was a rock star. Maybe she was a princess who owned a hundred of those purple jump suits, each one custom made for her.

These were fun ideas, but Sarita's favorite was that the runner was a superhero in training - that she ran every morning because she was preparing to defend the earth against monsters.

One morning, the runner stopped in the middle of the sidewalk. Her sneaker had come untied. Sarita caught up with her. She asked the woman about her outfit - why did she dress like this to go running?

The runner frowned. "Dress like what?" she asked. But there was a twinkle in her eye. "I'm only kidding. I know I look ridiculous. But I wear it anyway, because when I put these clothes on I feel powerful." She paused. "Also, I'm in training, and those are the rules. A monster could arrive at any minute, and I'm not allowed to fight evil in ordinary street clothes."
**Build an Obstacle Course**

Obstacle courses are a great way to exercise. They are also a great way to have fun and compete with friends. Although you can use existing obstacle courses, it is easy to make your own!

First, to make your own obstacle course you need to do some planning and make some decisions. You need to determine whether your obstacle course will be clean or dirty. Some people like to run through mud, but sometimes that can make parents mad. You also need to determine what you have. Maybe you have access to a jungle gym or swing set that would make a great obstacle to climb over. Maybe you have some sport cones that you can use to make a zigzag path. Perhaps you have a basketball hoop and want to include a shooting challenge. The ideas are as endless as your imagination.

Second, you need to diagram the path of your obstacle course based on your materials and space. Make sure there is room to run and jump. Make sure to have an obvious starting and finish line.

Third, gather the materials. Arrange the materials out in the order according to your plan. Make sure the route is clear.

Fourth, show your friends the path of the course and clarify the rules. Make sure they know whether to go over or under an obstacle. Make sure they know the rules of any challenge.

Fifth, take turns running the course. Time each other with a stop watch to see who is the fastest. The fastest runner gets to design the next course.

Finally take photos of your obstacle course to share!
The River Crossing

The river was fast, but it did not look too deep. So, the covered wagons lined up on the sandy bank to cross it. Molly's father shouted at the mules and shook the reins. The wagon jolted and creaked. The wheels bounced over some rocks and went into the river with a splash. Molly glanced at her mother, who was pale with fear under her bonnet and holding onto the wagon seat with both hands.

Molly looked down at the rippling river water that came halfway up the wheels. Hope, Molly's littlest sister, was holding onto her arm and trying to look down, too. She was clutching her rag doll.

They were now at the middle of the river. The mules were jerking and rolling their eyes as the current tugged at them. Molly's father was shouting at the mules over the big booming sound the river made.

She saw a flash of color as something fell out of the wagon. Even as it splashed into the bright river, the current whirled it away. Hope screamed, "My doll!"

Molly had to grab both of Hope's shoulders to keep her from throwing herself into the river after it. After that for a long time she felt sad about the rag doll, whirled away on a nameless river on the way to Oregon.
Living in Space

Did you ever think about how an astronaut sleeps and eats in space? They get to choose from various foods what they want to eat. These meals are planned months before they leave to go into space. They also practice in machines that feel like space. These machines help them see what it is like to eat, sleep and move around in space.

Astronauts get three meals a day plus snacks when they are in space. A spacecraft delivers food, fresh fruit and water every three months. The food comes in foil and in cans. There are ovens in space so that they can heat up their food if they need to. They must write down everything they eat so the nutritionist in mission control can tell them if they are eating enough calories a day or if they need to change their diet.

Sleeping in space is not the same because everything floats. Sleeping bags need to be hooked onto something inside the space shuttle so when they are asleep in them they don't bump into things. Astronauts usually sleep in small cabins. They can sleep, listen to music, read or use a laptop in these small cabins. The cabin also has a desk, a shelf and a lamp for their convenience. They get about eight hours of sleep. It is hard to know when it is time to sleep because there are so many sunrises and sunsets in one day. An alarm clock or music from mission control on earth wakes them up when it is time for work.
Skating

Where Maria lived when she was small, some kids knew how to ice skate, and some didn't, and it didn't seem to matter. The skating kids had fun, and the other kids had fun, too.

When Maria moved to Canada, everyone knew how to skate! All the parks had rinks in the winter, and Maria saw people carrying their skates everywhere in bags or by their laces. Some people had rinks in their backyards! Maria decided it was time for her to learn how to skate.

Her mom bought her some skates and took her to the neighborhood rink. She saw grandparents, school kids, teenagers, and even toddlers gliding around the ice effortlessly. Her mom helped her put her skates on and laced up her own pair. Then, they stepped into the rink together.

It was not easy! Every time she moved, her feet slid out in front of her, making her fall on her bottom. Sometimes her feet slid out behind, making her fall on her hands and knees. The ice wasn't just cold; it was hard! Her mom couldn't hold her up, because she didn't know how to skate either. When they got home, Maria threw away her skates and said she never wanted to skate again.

But her mom secretly kept the skates. The next winter, she adjusted them to fit Maria's feet, and they went to the arena to try again. Now Maria found she could stand on the blades without falling. If she shuffled her feet, she could move without falling. It was almost fun!

Each time Maria went skating, she got better. Now, she skates very well. She can even skate backward.
To Spit or Not to Spit

In most parts of the world, spitting is considered to be rude. In the United States, spitting in public is considered both rude and vulgar. And spitting at another person is against the law.

Our mouths are full of spit. Without it, we would have a hard time talking. And we would find it very difficult to swallow.

Our bodies produce two kinds of spit. Saliva, which is clear and thin, is produced by our mouths all day long. Saliva is mostly water with enzymes and other chemicals mixed in. Saliva keeps our mouths moist, softens our food while we chew, and helps with digestion.

The other spit we produce is a kind of mucus. This thicker liquid is produced by the membranes of the respiratory passages.

When you have an illness, spitting is considered okay. A severe allergy or a bad cold can make your mucus membranes work harder. Some of that mucus may drip into your throat. So if you're on the verge of choking, you may want to spit out that phlegm.

But don't worry. Swallowing your own mucus won't hurt you. And it won't make your illness any worse. It's highly unlikely that any harmful germs could survive the acids in your stomach.
Red Barns

Driving down a country road, you are bound to see at least one large, red barn. Barns are useful on farms because they can house animals and equipment. But why are barns red instead of some other color?

For centuries barns were made only out of wood. Wood is a great material to construct barns with because it is sturdy. It is also widely available and can be cut to size. However, wood can have problems, too. For example, wood can rot due to mold, fungus, or other small organisms.

So, farmers would need to protect their wood barns.

The main way to protect the wood of a barn was to paint it. However, the type of latex paint that you can buy in stores has only existed for about eighty years. Prior to that, people used oil and oil-based paint to seal the wood. The oil that farmers used is called linseed oil which is made from flax seed. Linseed oil has an orange tint to it. Farmers would add rust to the linseed oil.

Rust on metal can be a bad thing. It can corrode and ruin the metal. However, when mixed with the linseed oil and applied as paint, it can protect the wood. Rust will kill any mold or fungus growing on the wood. Thus, the red color on barns was traditionally from rust.

Nowadays you can see many barns made of a variety of materials. Many large sheds are made out of metal. But often barns are still red because of the tradition of painting with rust.
Maple Taffy

Every spring, Marina's family made maple syrup and maple taffy. When the sap ran in the maple trees in their yard, Marina's family tapped them and cooked the sap over a fire to make syrup. Then they would make the delicious taffy. Marina's mouth watered every time she thought about it!

They had to wait until the temperatures were above freezing during the day, but well below freezing at night. Then the sap was rising, and the time was right.

The trees in their yard were large. Marina's dad drilled three holes in each trunk, and Marina used a small hammer to tap a metal spout into each hole. Then they hung buckets on the spouts and waited for the sap to fill them. Drip, drip, drop!

Mom got out their sugaring pot, and Dad cleaned the ashes out of the outdoor fire pit. They collected kindling and firewood, and set up a grate to hold the pot.

The sap in the buckets looked like water. They poured it into the sugaring pot over the fire and brought it to a boil. The sap bubbled and rolled, and great puffs of steam billowed out of the pot. It took a long time to cook down!

When the syrup was almost done, it was time for the best part of sugaring: maple taffy! Mom put a small amount in a pan and cooked it inside the kitchen on the stove. Marina filled a baking dish with clean snow. Mom poured a line of maple syrup on the clean snow, and Marina rolled it up around the end of a popsicle stick. Sweet, chewy, maple taffy!
Blackberry Picking

Let's go down to the creek to pick wild blackberries! I know a place where they grow up on the bank. You take a bucket, and I'll grab a basket.

Let's run past the tall, blond, waving wild oats and the silky orange poppies. We'll go down the path lined with wildflowers and watch out for thorns.

Can you see the creek running dark in the shadows and golden in the light? Come with me between the trunks of the lazy willow trees that dip their long green and silver leaves into the creek. Step with me into the laughing water. It's cold on our toes! Watch the slippery minnows swim silently over the pebbles. See the water striders, those bugs whose thin-as-thread legs skate over the water's surface. A dragonfly stops in midair and its shiny eyes flash in the sun.

Here's my secret place. The blackberries are twice as tall as we are, and grow in a giant tangle. Reach in carefully! Don't let them scratch you! Even the backs of the leaves are covered in fierce thorns that will hook into your tee shirt and snag your hair. Don't take the immature green ones, and don't take the hard, sour red ones. Leave the pretty, pale, pink, five-petalled blossoms so we'll have berries next week. Take only the heavy, fat, warm, juicy, sweet black ones. One for your bucket, one for your mouth, one for my basket, and one for my mouth. We'll pick until our bellies and containers are full, and then we'll run home and make a pie!