volume 2
issue 1

Bats

There are more than 1,000 kinds of bats. Like birds, bats have wings and can fly. However, bats are not birds. Bats have fur, not feathers. Also, baby bats drink milk from their mothers. They don't eat worms or seeds.

Bats have thin, light bones that help them fly. However, because their bones are thin and light, most bats cannot walk on land. Only vampire bats have legs that are strong enough to let them walk on land. In fact, vampire bats walk on their legs and their wings.

Most bats have sharp claws that they use to grab onto a tree or a cave so they can hang upside down to rest. When bats rest, they look small. Bats look much bigger when they stretch their wings. Their wingspan, or the distance between the tip of one wing to the tip of the other, can be as much as five feet. That's probably taller than you are. Some bats, though, have wingspans that are only as big as your hand.

Most bats rest during the day and fly at night. Many bats eat bugs. Some eat up to 2,000 bugs in one hour, or 33 bugs in one minute. Other bats eat fruit. Vampire bats feed on small amounts of blood from animals like pigs and birds.

Many bats have names that tell how they look. Dog-faced bats looks like dogs. Flying foxes, which are bats, look like foxes.

Other bats have names that tell what they do. Fishing bats use their long legs and sharp claws to grab fish from the water. Tent-making bats build tents around themselves with leaves.

Bats cannot see well, but they can hear well. Bats make a high sound as they fly. The sound is so high that most people cannot hear it. These waves of sound bounce off walls, trees, and insects. They keep bats from flying into things. They also help bats find food and stay safe.

volume 2
issue 2

Fractured Fairy Tales

Fairy tales usually start with the phrase "once upon a time." They are often told to children as lessons. Fairy tales might tell children how to be good. They might also try to make children afraid of what could happen if they are not. Often, the lesson is that children should listen to their parents. Most cultures around the world have fairy tales.

In one traditional fairy tale, a mother pig tells her three little pigs to always do the best they can. The three pigs then go out for a walk. A wicked wolf sees them and wants to eat them. One pig tries to get away by building a house of straw. Another one tries to get away by building a house of sticks. The wolf, however, blows both houses down and eats the two pigs.

The third pig builds a house of bricks that the wolf can't blow down. The wolf can't eat him because the pig has obeyed his mother. The lesson children are supposed to learn is that they should always listen to their mother and do a good job.

Fractured fairy tales, or fairy tales for today, are different. What makes them different from traditional fairy tales is the lessons they teach. The lessons of fractured fairy tales are built around the lessons that parents today teach their children.

If the story about the three little pigs were made into a fractured fairy tale, the wolf might talk to the three pigs instead of eating them. The pigs might teach the wolf how to build a house. Then they might all play a game together. In this way, the wolf would learn how to get along with others, and he would not be wicked.

Read some fractured fairy tales. How are the lessons they teach closer to lessons parents teach their children today?

volume 2
issue 3

Totem Poles

All over the world, people carve materials into different shapes. They use stone, wood, ice, soap, bone, and other materials. These carved items are sometimes meant to honor people or events. Sometimes they are meant to be works of art. In the northwestern parts of North America, native people use wood to carve totem poles.

A totem pole is more than a work of art, though. It might honor a person or family. It might also tell a story. Many totem poles feature figures that represent a clan, such as animals, birds, and heroes. These figures are placed on top of each other. Sometimes the most important figure is at the bottom of the totem pole. Sometimes it is at the top.

Most totem poles are made from cedar or spruce wood. These woods are used because cedar and spruce trees grow tall and straight. Also, their wood is soft and easy to carve.

Cedar and spruce may be soft compared to other woods, but carvers still need to be very skilled. Totem poles are usually 40 to 50 feet tall, and they weigh thousands of pounds. Totem poles are also eight to nine times taller than most people.

In the past, totem poles were placed in front of people's homes. The homes were near water, so people would see a family's totem pole when they arrived by canoe. Native Americans erected their totem poles by pulling them upright with ropes.

Today, totem poles on reservations are placed near the road because most people arrive by car. In addition, totem poles are sometimes erected by trucks and other machines. Just as in earlier times, though, people sing and dance to celebrate raising new totem poles.

Native people today continue to carve totem poles. These modern totem poles help others appreciate and honor the people and cultures of Native Americans.

volume 2
issue 4

Nesting Dolls

You've seen many types of art. You've also seen many types of dolls. Did you know that some dolls are considered to be forms of art?

Folk art is a form of art that shows something about the people of an area. It is usually made by ordinary people, not great artists, but it shows what the people of the area find important or interesting. Folk artists often make things that people use, like rugs or plates.

A form of folk art from the country of Russia is the nesting doll, or matryoshka doll. The word *matryoshka* comes from a Russian name—Matryona—which means "little mother." Matryoshka dolls are made in decreasing sizes that nest inside one another. All of the dolls except the smallest one can be pulled apart to show a smaller figure inside. The smallest doll is often made of a single piece of wood.

Matryoshka dolls are shaped like cylinders, meaning they are long and round. They have rounded heads and few or no features that stick out. The dolls have no hands, unless they are painted on. Usually there are five dolls in a set, but some sets have a dozen or more dolls.

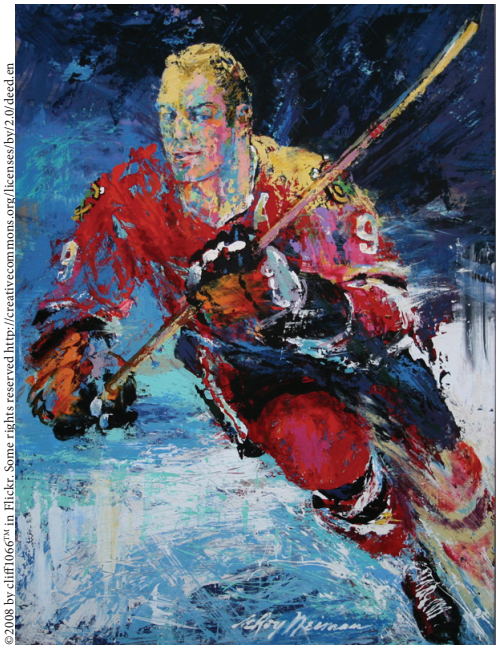
People in Russia began to make these dolls a little more than 100 years ago. They learned about nesting dolls from folk artists in Japan, who had learned about them from folk artists in China. The Japanese wooden dolls were made to look like the seven lucky gods of Japanese myths.

Chinese artists began making nesting boxes about a thousand years ago. Later, they began making nesting dolls. In the first Chinese sets, the smallest doll held a single grain of rice.

The first matryoshka dolls were figures of women. Today, nesting dolls are made in many different shapes. They include animals, political leaders, fairy-tale characters, and even movie stars. Clearly, this form of folk art still shows what people find interesting.

volume 2
issue 5

Posters That Pop



Cherry red, lemon yellow, and sky blue seem to pop out from the posters. The bright colors make you feel excited and happy. The people and objects in the posters seem to move, even though they're drawings on paper. Who creates such posters? The artists LeRoy Neiman and Peter Max are famous for the way their art seems to move and dance.

As a child, Leroy Neiman loved to draw. In high school, he made posters for school dances and sports events. He also found a way to earn money doing what he loved. His first job as an artist was to make posters for grocery stores that showed the meats and fruits that were for sale. The posters helped the store owners sell more food.

Peter Max is another artist whose bright colors show excitement and movement. When he was a child, his mother left art supplies of all kinds around the house. She told him to make a big mess and that she would clean it up.

Later, Max also became interested in space. He learned about the stars and planets, then he began to draw them. Even today, his works often include pictures of objects in space.

Both Neiman's and Max's paintings are famous for their bright colors and their energy. Their colors and their lines show how people and things move. To help them create paintings that look real, they watched people play sports and dance.

Both artists created work for the Olympic Games and the Super Bowl. Their paintings show people in the middle of actions. The athletes seem to be frozen in time.

Many of Neiman's and Max's paintings have been made into posters that have sold thousands of copies. Their work also hangs in museums around the world. What do you think of when you see the posters shown here? What do their bright colors and lines say to you?

volume 2
issue 6

Life in a Medieval Castle

You've probably seen castles in movies. Their walls are very tall. Flags fly from their towers.

Many castles were built in Europe during medieval times, from about 1100 to about 1550. Castles were the homes of a lord, his family, and his servants. Some of the lord's soldiers, called knights, might have lived there, too.

People built castles during medieval times for a few reasons. One was that there were no police to keep them safe. Another was to show how rich they were.

A castle's high walls allowed guards to see for miles. Many castles were also surrounded by a ditch of water called a moat. To get into the castle, visitors had to cross the moat on a bridge. The bridge was lowered to let people in and raised to keep them out of the castle.

There were few windows in a castle's high stone walls. That was to keep out enemies, but also to keep out the weather. Windows had no glass, only wooden shutters to keep out the wind and rain.

Castles were cold and damp. The heat came only from fireplaces. Light came from the sun or from torches. Tapestries, or large rugs, were hung on the walls to keep heat inside. Animals skins were used as rugs.

Most medieval castles had a room called the Great Hall. Feasts and meetings were held there. Large castles might also have had ponds, gardens, and stables for horses. Usually, the cows, sheep, and pigs were kept outside the castle.

As many as 100-150 people were needed to run a large castle, including cooks, maids, and gardeners. Some castles were like towns because so many people lived inside.

Today, you can see ruined castles in many countries in Europe. If you look carefully, you can probably imagine a king and queen feasting in the Great Hall.

Image of Neuschwanstein Castle in Bavaria, Germany. Released into public domain because the photo was taken before 1923.

volume 2
issue 7

Horns: The Sound of the Wind

First, you hear the drums pound. Then you hear the horns toot. Next, you see the marchers turn their heads from side to side, blowing a tune in time to the drums. There's a parade headed your way!

Horns are often played in parades because they make bright, happy sounds. What makes that sound? The wind does. In fact, horns are sometimes called wind instruments. That is because they make sounds when players blow into them.

Horns come in many sizes and shapes, but they are all shaped like tubes and have holes. Players blow air into the horn's mouthpiece. The air then flows through the tube and escapes through the holes. The escaping air is what makes the horn's sound. If the air travels only a short distance to the hole, it makes a high sound. If it travels a longer distance, it makes a low sound.

Horns are also part of the brass family of instruments. Today, brass instruments are made of brass, a metal made of copper and zinc. The first horns, though, were made from animal horns. By cutting off the tip of the horn and buzzing their lips, players could make a sound that could be heard far away. Later, horns were used in hunting. Hunting calls told what the hunter had found or where he or she was going.

The oldest brass instruments are the horn and the trumpet. These instruments also have the highest sounds. Modern members of the brass family include the French horn and the tuba. These instruments have lower sounds because their tubes are longer and wider than the tubes of horns and trumpets.

You can make a horn for yourself to toot. Take an empty paper towel roll, pull your lips together tightly so that only a little air can escape. Then make a buzzing sound into the roll. Pretty soon, people might be marching along to your music!

volume 2
issue 8

Flip-Flops

Suppose you were making a pair of shoes. What materials would you use? You might use rubber, leather, or even plastic. If you lived 10,000 years ago, though, you might have used tree bark. In fact, the oldest shoes ever discovered were made with bark that was twisted into rope. Can you imagine wearing shoes made of bark today?

Sandals have two main parts. One part is a flat piece of material shaped like your foot. This part, called the sole, is the bottom of the sandal. It protects the sole, or bottom, of your foot.

The second part is one or more straps that are attached to the sole. The straps are wound around your toes or your foot. These straps keep the sandal on your foot.

One type of sandal is very popular today. It has a sole and a Y-shaped strap. The Y-shaped strap passes between your big toe and your second toe. This kind of sandal has several names. In South Africa, it's called a slip-slop. In the United States, it is usually called a flip-flop. Flip-flops don't have ankle straps to keep them in place, so they move when you walk. This movement makes the sound "flip flop."

Flip-flops don't cost a lot, so most people can buy a pair or two. Usually, flip-flops are made of material that comes from crude oil. As a result, it is hard to recycle old flip-flops. Some people have solved this problem by making flip-flops from car tires or from material like cotton or straw.

For some sports, special shoes can help you move faster or climb higher. A pair of flip-flops won't get you very far if you're hiking up a mountain or through the mud and rocks of a wilderness trail. However, when it's hot outside, it feels good to put on a pair of flip-flops and feel a breeze on your toes.

volume 2
issue 9

Noodles Around the World

In China, people put soy sauce on me. In Italy, they put tomato sauce on me. In the United States, they put cheese on me. What am I? I'm a noodle!

Thousands of years ago, people ground grains and mixed them with water. The food they made was tasty. Plus, it could be dried and stored. When food was needed, it could be boiled and safely eaten. Noodles were a very useful invention.

In some countries, noodles are made from rice flour. In others, wheat flour is used. Noodles can also be made with soy flour and corn flour.

The English word *noodle* came from the German word *Nudel.* But many of the noodles we eat in the United States are called by the Italian word for noodles, which is *pasta. Pasta* means "paste" in Italian.

When you hear the word *spaghetti,* you probably think of long, thin noodles. In Italian, the word *spaghetti* means "thin strings or cords." In fact, the Italian words for most kinds of pasta describe their shape. Another name for some kinds of pasta is *macaroni.* In Italian, *macaroni* means "broken," which describes the small shapes of the pasta.

Noodles have long been part of the diet of the people in China, too. The oldest known noodles were found in 2005 in northwest China. Scientists believe that they were made about 4,000 years ago.

Although Italian pasta can be long or short, Asian noodles are most often served long. In China, long noodles are a sign of a long life. The Chinese call noodles made from wheat *mein.* When this kind of noodle is combined with other food, it might have a name like *chow mein,* which means "fried flour." When the noodle is made of rice, it is called *fen* or *fun.*

People around the world love to eat noodles in many shapes and sizes. They're easy to cook and delicious with many sauces. What's your favorite kind of noodle?

volume 2
issue 10

Changing Lives, One Cow at a Time

Who says kids can't make a difference? In Missouri, a group of students is changing lives around the world! How are they doing this? They're buying farm animals!

Millions of people live with little food and money, so the gift of an animal can actually save lives. More than 10 years ago, the second-graders at Forsyth School learned about how Heifer International helps people. They decided they wanted to help, too.

Heifer is an organization that has been "turning hunger and poverty into hope" for almost 70 years. It does this by giving farm animals to poor people and teaching them how to use the animals to improve their lives. A heifer is a young cow, and these animals have become a symbol of Heifer's work. That's because families with a cow can produce milk that they can drink and that they can trade for other things they need.

Animals save lives in other ways, too. Strong animals, such as water buffaloes, can plow land. Families with a water buffalo can grow more food to eat and to sell. Heifer also gives such animals as goats, sheep, camels, and even bees to needy families.

Each second-grade class at the school decides which animals to buy and how much to give to special projects. The students' favorite part of working with Heifer is that they can help others. They don't want kids their age to be without shelter or food.

The students raise money by recycling cans and making jewelry. Some even ask that birthday or holiday gifts be given to Heifer! A water buffalo costs $250: that's a lot of recycled cans!

Kids can do many things to help others. Your class might want to raise money for Heifer, too. You might also want to give your money or your time to a group in your community that helps people. Why not talk with your classmates about how your school can help others?

volume 2
issue 11

Power to the People

Originally painted in 1559 by unknown painter. Released into public domain due to an expired copyright.

Many stories are about kings, queens, princes, and princesses from times long ago. In them, the kings and queens command people to do whatever they want.

Although many countries today have governments that allow people to vote, some still have monarchs, or kings or queens, with absolute power. These monarchs are like the ones you've read about. They make rules, and their people must obey them.

Other countries, like Great Britain, have monarchs who lead their countries with the help of a parliament of elected leaders. A parliament is like the U.S. congress, in that voters elect people who pass laws for them.

The queen of Great Britain today is Elizabeth II. Although Queen Elizabeth is an important person, she doesn't command people in the same way as an earlier queen, Elizabeth I, did.

When Elizabeth I was the queen, almost 500 years ago, kings and queens had absolute power. If Elizabeth I wanted to increase taxes or go to war, she did. Her power was absolute—no one could say no to her.

Eventually, people began to question rulers with absolute power. In the 1700s, King George III ruled the English colonies in America. The colonists thought he made unfair laws, so they revolted and formed their own country. That was how the United States of America was formed. The king's power went to the people, who elected their leaders.

Today, most countries with monarchs have parliaments that are elected by the people. In Great Britain, Queen Elizabeth II signs bills of the government and attends important events, but she does not have absolute power. Instead, she rules with the advice of the people and their elected representatives.

In today's stories, instead of commanding their people, monarchs might ask what people think about ideas and laws. Then they might try to act so that all of their citizens get what they need.

volume 2
issue 12

Get Involved in Your Community

Look around your class. What do you see? People! Almost everyone in the world lives with others. This is called living in a society. The word *civics* describes the rights and responsibilities of people who live in a society. These people are called its *citizens*. In fact, the word *citizen* means "someone who lives in a city."

What does it mean to be a good citizen? In the United States, we usually think that voting is the most important civic responsibility. People don't have to vote, but responsible citizens vote to help make decisions and voice their opinions.

People have to be 18 to vote in the United States, so you might wonder what you can do to be a responsible citizen now. You can do community service! *Community service* means donating your time and energy to help your community.

Responsible citizens learn what problems people face and how these problems might be solved. They learn how different people think and feel. They even learn that working hard feels good because it makes a difference in others' lives. Then they volunteer their time to help in any way they can.

Being a good citizen doesn't just include volunteering to help people, though. It also includes volunteering to help endangered animals and to reduce pollution. There are many things people of all ages can do to help the Earth. They can work to protect animals' habitat, or their homes. They can also start recycling programs.

The first thing to do is to think about what interests you. You should also ask a parent or other adult who will be volunteering with you what they might like to do. You might want to donate your time working for the environment, animals, or older people. Talk to your teacher about ways to volunteer in your community, too. There are lots of ways you can make a difference in the world!

volume 2
issue 13

Keeping Your Feet on the Ground

Sports stars sometimes look like monsters on the field. Helmets, shoulder pads, and gloves make them look huge. They don't wear sports equipment to look cool, though. They wear it to keep themselves safe from flying balls and crashing people.

There's another kind of sports equipment: shoes. Players can't perform well without the right shoes. In addition, shoes keep players safe. They protect players' feet from getting hurt. They also keep players from sliding and falling when they run.

Cleats are a type of shoe worn by people who play on grass. Today, most cleats look like tennis shoes with low backs. However, the soles of cleats look different. They have small rounded metal or plastic spikes. Each cleat grabs the grass and helps keep a player from slipping and falling.

In the 1800s, players wore thick leather shoes. Then they pounded metal studs into the soles of their shoes. The metal and leather made the shoes very heavy. In fact, when it rained, their shoes would double in weight. Cleats today are light so players can run fast.

Track runners wear shoes called track spikes. Like cleats, each spike grabs the track and helps keep runners from slipping. Pole jumpers have spikes only on the front of their shoes so they can plant their feet before they leap into the air. High jumpers have spikes on the back and front of the sole to keep them from slipping both while they run and when they jump.

Ice skates are another type of sports shoe. They look like boots with blades attached. The first ice skates used bone as the blade and were first made as early as 1000 BCE. Today, blades are made of metal. Skates used in figure skating also have pointed edges on the front that help skaters stop quickly.

The right shoes help people perform on the field. They can make a difference between playing—and winning.

volume 2
issue 14

Bigger Than an Elephant

What is the world's largest living thing? You might think it would be an elephant or a whale. However, think about what a living thing is. The largest living animals are blue whales. They weigh up to 150 tons, or 300,000 pounds. The largest living land animals are African elephants. They're much smaller than whales. They only weigh 7.5 tons, or 15,000 pounds. Animals are not the only living things on Earth, though. Plants are living things, too.

Most scientists agree that the world's largest living thing is not an animal. Instead, it's a mushroom that is 3.5 miles wide. This honey mushroom lives in the Blue Mountains in Oregon. It covers some 2,200 acres, or more than 1,500 football fields. Its only above-ground signs are patches of dead trees and the mushrooms that form at the base of these trees. The honey mushroom, in fact, kills the trees. Scientists estimate that this mushroom might be 2,400 years old. Like other mushrooms, it grew from a single spore and sent out threads of cells called hyphae. These hyphae joined and formed a mass that eventually spread for miles underground. The word hyphae is from a Greek word that means "web."

Another massive living organism is named Pando, which is a Latin word that means "I spread." Pando is a group of 43,000 aspen trees that grow together in Utah on 106 acres of land. Scientists estimate that Pando weighs about 6,500 tons, or about 13,000,000 pounds. They also estimate that it could be 80,000 years old. The trees have become able to clone themselves, which means that all of the trees came from the same plant. They are connected at their roots, and they all change the color of their leaves and lose their leaves at the same time.

Even though the honey mushroom and Pando have lived for thousands of years, scientists have only discovered them recently. Even larger living things may still be discovered.

volume 2
issue 15

Young Inventors: Jack Andraka

Jack Andraka is a 16 year old who is changing the world. How is he doing that? He's helping doctors identify, or diagnose, diseases. He recently invented a way to test for cancer.

Jack understands that the human body is made up of billions of cells, or the units that create life. Our cells are constantly replacing cells that have died. This keeps our body healthy.

But sometimes cells reproduce when they shouldn't. This is one thing that cancer cells do: They multiply quickly and crowd out healthy cells. There are hundreds of types of cancer. Some are more common and more dangerous than others.

Jack became interested in how cancer is diagnosed after his family lost a close friend to the disease. He focused on pancreatic cancer, which is one of the deadliest types of cancer. One reason it's so deadly is that doctors can't identify it when it first appears. Another reason is that tests to find the disease cost a lot of money. Jack's test fixes both of these problems. It can accurately identify cancer cells, and it costs only about three cents a test.

Jack thinks that his test could change how cancer and other diseases are found. Because it uses only a drop of blood and a special paper, testing could be done in any doctor's office. He hopes that his findings could also be used to detect other diseases early, when they are easiest to cure.

Jack's discovery has changed his life. He has won more than $100,000 and has spoken at conferences. In addition, he has started his own company and is patenting his invention. Jack believes that his invention will be used in hospitals around the country within the next 10 years. He also hopes that people may live longer because their cancer is found early, when it's easiest to cure.

volume 2
issue 16

Why Do Things Move?

What happens when you leave a soccer ball in a field? It probably stays where it is, unless someone picks it up or the wind moves it. The soccer ball can't move on its own. That's because, like everything on Earth, it is subject to the law of inertia.

Inertia is the first law of motion. It states that an object at rest will stay at rest until an outside force causes it to move. If you kick the soccer ball, you become the outside force that causes the ball to move. You overcome the force of inertia. The word *inertia* is from a Latin word that means "lazy."

The law of inertia was the first of three laws of motion proposed by Sir Isaac Newton in 1687. In addition to an object staying at rest, the law states that an object in motion will remain in motion until something stops it.

Now imagine kicking the soccer ball. Newton's law says that it will continue to move in a straight line unless something stops it. Many forces can slow or stop objects in motion. The soccer ball could run into a tree. A person could catch it. The rough grass on the field could also slow it down until it stops on its own.

Some objects in motion are easier to start or stop than others. It's easier to move a soccer ball than a car. It's also easier to start moving, or push a soccer ball than a car. That's because a soccer ball has less mass than a car. Because it has less mass, it's easier for a soccer ball to overcome inertia.

You can be a scientist and test the law of inertia. Take a tennis ball and a bowling ball, and push each of them. How hard is it to overcome inertia with the tennis ball? How hard is it with the bowling ball? The difference between the two is their mass.

volume 2
issue 17

Surprises Inside a Rock

Have you ever broken a rock open? What did you see? The inside of your rock probably looked like the outside. That's not the case with geodes, though. On the outside, geodes look like ordinary rocks. However, on the inside, geodes display sparkling crystals.

The crystals inside geodes are usually quartz, and they can be found in many different colors, including pink, purple, blue, and green. Their color depends on the minerals that were present when the crystals formed.

Geodes form in a few ways. Some form inside volcanic rock. Others form inside the remains of animal burrows, tree roots, or rocks that were hollowed out by water. They start with a bubble of gas trapped inside the rock. As water and steam slowly seep through the bubble, they leave behind the minerals they carried with them. These minerals then turn into crystals. Over millions of years, the crystals grow and build on each other. Because they form in the earth, the word *geode* contains the Greek prefix *ge-*, which means "earth."

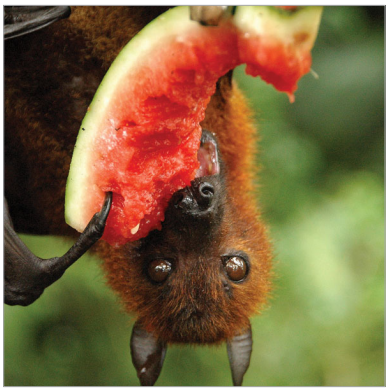
Some kinds of geodes are called thunder eggs. Native Americans in Oregon created the name thunder egg because they believed that two gods stood on the tops of mountains and threw these rocks at each other during storms.

Geodes can be found around the world, often in areas called geode beds. Many beautiful geodes have been found in Brazil and Mexico. In the United States, California, Iowa, and Utah have many geode beds. Geodes are even the state rock of Iowa and Oregon.

How can you tell if a rock is a geode? There are no clear signs. Geodes are usually round and about the size of a baseball. The only way to tell if you have a geode is to break it open. Then you might find beautiful crystals that show you that Earth has many surprises.

Name _____

Bats



Write all these words in the right places to complete this puzzle, which tells some things you learned about bats. You can reread the article before you begin, but don't look back at it while you are working. After you've completed the puzzle, read it to someone.

claws	flying	fur	hear	milk
people	vampire	wings	worms	1,000

There are more than _____ different kinds of bats. There are many similarities between bats and birds. Bats and birds both have _____ and can fly. They both have _____ that let them grab onto trees.

There are lots of differences between bats and birds, too. Birds' bodies are covered with feathers, but bats' bodies are covered with _____.

Baby birds eat _____ or seeds, but baby bats drink _____ from their mothers. Most birds can walk, but the only bat that can walk is the _____ bat.

Bats cannot see well, but they can _____ well. They can hear very high sounds that _____ cannot hear. These sound waves bounce off walls and trees and keep the bats from _____ into things.

Name _____

Fractured Fairy Tales

Write all these words in the right places to complete this puzzle, which tells some things you learned about fractured fairy tales. You can reread the article before you begin, but don't look back at it while you are working. After you've completed the puzzle, read it to someone.

brick	built	fairy	game	houses
lessons	pigs	teach	wolf	world

When you read the words "once upon a time," you know you are probably reading a _____ tale. Most cultures in the _____ have fairy tales.

Perhaps you know the fairy tale about the three little _____. The three pigs all _____ places to live, but two of their _____ were not very strong. The _____ blew down the stick house and the straw house, but he could not blow down the _____ house.

Fractured fairy tales have different _____. In a fractured fairy tale, the pigs might _____ the wolf to build a house. The pigs might also play a _____ with the wolf and help the wolf learn to get along with others.

Name _____

Totem Poles

Were you surprised by what you learned about totem poles? Write some of the facts that surprised you, then read these facts to a friend or family member. Here are some words you might use.

carve	Native Americans	animals	heroes	birds
tall	reservations	celebrate	weigh	sing
dance	40 to 50 feet	thousands	pounds	wood

Comprehension Response Activities
FYI for Kids — Level 2

Name _____

Nesting Dolls

Write all these words in the right places to complete this puzzle, which tells some things you learned about nesting dolls. You can reread the article before you begin, but don't look back at it while you are working. After you've completed the puzzle, read it to someone.

artists	biggest	boxes	different	dolls
inside	Japan	movie stars	people	rugs

There are many _____ kinds of art. Folk art is made by ordinary _____, not by great _____.

Folk artists often make useful things, such as dinner plates or _____ for floors. Nesting _____ are another kind of folk art. These dolls vary in size, so that they can fit _____ one another. Once all of the dolls are fitted together, you can only see the _____ doll.

About 1,000 years ago, artists in China made both nesting _____ and nesting dolls. Folk artists in _____ learned to make nesting dolls from the folk artists in China. The dolls in the picture were made in Russia. Today, nesting dolls are made in many different shapes including animals and _____.

Name _____

Posters That Pop

Do you have a favorite sport or athlete? Imagine that you are going to make a poster to promote that sport or athlete. Write about who and what you would draw. Describe what you would put on your poster and what pictures you would use. When you're finished planning, make the poster and hang it somewhere to show everyone which sport or athlete you like.

Name _____

Life in a Medieval Castle

Were you surprised by what you learned about castles? Write some of the facts that surprised you, then read your work to a friend or family member. Here are some words you might use.

high walls	moat	bridge	heat	fireplaces
tapestries	animal skins	rugs	Great Hall	feasts
king	queen	cooks	maids	gardeners

Comprehension Response Activities
FYI for Kids — Level 2

Name _____

Horns: The Sounds of the Wind

Do you have a favorite musical instrument? Do you play an instrument? Which one is it? Write about the instrument you play or would like to play. Tell about the sounds the instrument makes and why this instrument interests you.

Name _____

Flip-Flops

What kind of shoes do you like? Do you like flip-flops or other kinds of sandals? Do you have sneakers or other kinds of special shoes for sports? Write about your shoes, including where you wear them and why you like them.

Name _____

Noodles Around the World

People around the world eat noodles, but they call them different things, including mein, pasta, spaghetti, and macaroni. People cook different meals with noodles and put different sauces and cheeses on them. What are your favorite kinds of noodles? What do like to put on them? What other foods do you eat with your noodles?

Name _____

Changing Lives, One Cow at a Time

Write all these words in the right places to complete this puzzle, which tells some things you learned about how kids can make a difference in the world. You can reread the article before you begin, but don't look back at it while you are working. After you've completed the puzzle, read it to someone.

animals	buffalo	cans	cow	goats
grow	help	milk	need	poor

Millions of people in the world don't have enough food. A group called Heifer International wants to help these _____ people.

Heifer International gives farm _____ to people who need them. Some of the animals they give are heifers. A heifer is a young _____. When people have a cow, they can drink the _____ it produces. They can also trade the milk for other things they _____.

Heifer International gives other kinds of animals to poor people, too. One of these is the water _____. Water buffaloes can plow land, which helps the people _____ more food to eat and sell. Some needy families are given _____, sheep, camels, or even bees.

When some second graders in Missouri heard about Heifer International, they wanted to _____, too. These students raised money by recycling _____ and making jewelry. They sent this money to Heifer International to buy more cows and other animals for poor people.

Name _____

Power to the People

Write all these words in the right places to complete this puzzle, which tells some things you learned about government. You can reread the article before you begin, but don't look back at it while you are working. After you've completed the puzzle, read it to someone.

congress	country	events	Great Britain	kings
need	parliament	people	power	rules

In the United States, people vote for a president and for members of _____. The U.S. congress and the president make the laws that everyone in the _____ must follow. Other countries have monarchs that make their laws. Monarchs are _____ and queens who lead the people in their country.

Long ago, monarchs in some countries had absolute _____. The king or queen made the _____, and everyone had to follow them. Today, most countries that have monarchs also have a congress or another type of ruling body, such as a _____. In addition, the _____ today often vote for the members of the parliament.

Elizabeth II is the queen of _____. She signs the bills that parliament passes, and she attends important _____. Unlike rulers from long ago, she asks people what they think and tries to have all her citizens get what they _____.

Name _____

Get Involved in Your Community

Write all these words in the right places to complete this puzzle, which tells some ways you can be a good citizen. You can reread the article before you begin, but don't look back at it while you are working. After you've completed the puzzle, read it to someone.

age	citizen	community	difference	habitats
help	pollution	time	volunteer	voting

What does it mean to be a good _____ in your _____? If you are 18 years of _____ or older, you can show you are a responsible citizen by _____. Even though kids can't vote, they can still _____ others.

One way to be a good citizen is to be a _____, donating your _____ to help others. Kids your age can help animals by volunteering to protect animals' _____. Kids also help by recycling things to reduce _____. When you volunteer to make something in your community better, you can make a _____ in the world!

Name _____

Keeping Your Feet on the Ground

Write all these words in the right places to complete this puzzle, which tells how sports equipment can help keep athletes safe. You can reread the article before you begin, but don't look back at it while you are working. After you've completed the puzzle, read it to someone.

athletes	blades	cleats	cool	equipment
helmets	shoes	skates	slipping	sports

Many people think that the reason _____ wear special _____ is so they will look _____. But this equipment is really worn to keep athletes safe. For example, football players wear _____, shoulder pads, and gloves so they won't get hurt when they crash into each other.

Most _____ require athletes to wear special shoes. If the sport is played on grass, the athletes may need shoes with _____. These cleats grab the grass and keep players from _____ and falling. Track runners wear _____ that have spikes to grip the track's surface.

Ice _____ are another type of sports shoe. Ice skates have sharp _____ on the bottom that help players move smoothly across the ice.

The next time you watch a sporting event, notice the special equipment the athletes are wearing and think about how this equipment helps them stay safe—and win!

Name _____

Bigger Than an Elephant

Were you surprised by what you learned about big animals and plants? Write some of the facts that surprised you, then read these facts to a friend or family member. Here are some words you might use.

African elephant	blue whale	tons	pounds	honey mushroom
Oregon	underground	miles	Pando	tree
plant	root	connected	clone	Utah

Name _____

Young Inventor: Jack Andraka

Write all these words in the right places to complete this puzzle, which tells how one young person's invention is helping save lives. You can reread the article before you begin, but don't look back at it while you are working. After you've completed the puzzle, read it to someone.

appears	cents	disease	drop	hospitals
life	money	test	16	100,000

Many people think inventors have to be adults, but Jack Andraka was only _____ years old when he invented something important.

Cancer is a terrible _____ that kills many people every year. If cancer is diagnosed when it first _____, though, people can often be cured. Pancreatic cancer is a type of cancer that is deadly because there is not a good _____ to tell when people have it.

Tests for cancer often cost a lot of _____, but Jack invented a test that uses only one _____ of blood and only costs three _____.

Jack's discovery is changing the lives of many people and has changed his _____, too. His invention won more that _____ dollars in prize money! Jack hopes that his invention will soon be used in _____ all over the country and will save many lives.

Name _____

Why Do Things Move?

Were you surprised by what you learned about why things move? Write some of the facts that surprised you and read these facts to a friend or family member. Here are some words you might use.

inertia	force	kick	soccer ball	move
stop	tennis ball	bowling ball	push	mass

Name _____

Surprises Inside a Rock

Write all these words in the right places to complete this puzzle, which tells what you learned about geodes. You can reread the article before you begin, but don't look back at it while you are working. After you've completed the puzzle, read it to someone.

bubble	California	crystals	found	gas
green	geodes	outside	rock	sparkles

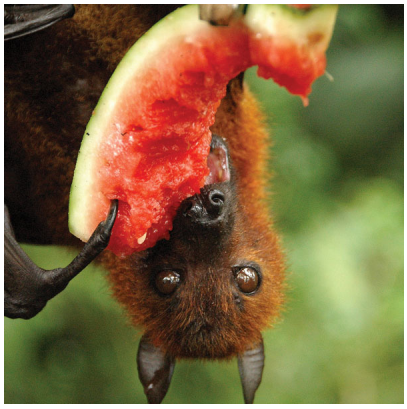
The inside of most rocks looks just like the _____. However, some rocks have something on the inside that _____ brightly. The sparkling inside is made of _____. These crystals can have many different colors, including pink, purple, blue, and _____.

Rocks with crystals on the inside are called _____. Geodes form when air, in the form of a _____ of _____, gets trapped inside the rock. Water and steam seep through this gas and leave behind the minerals they carried. After many, many years, these minerals sometimes turn into geodes.

Geodes can be _____ all over the world. In the United States, Iowa, Utah, and _____ have many geode beds. Geodes are the state _____ of Oregon and Iowa.

REVIEW

Bats



Write keywords or phrases that will help you remember what you learned.

REVIEW

Fractured Fairy Tales

Write keywords or phrases that will help you remember what you learned.

REVIEW

Totem Poles

Write keywords or phrases that will help you remember what you learned.

Review

Nesting Dolls

Write keywords or phrases that will help you remember what you learned.

Review

Posters That Pop

Write keywords or phrases that will help you remember what you learned.

REVIEW

Life in a Medieval Castle

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