

# Bison



©2008 by Dan Dzarrisin. Some rights reserved <http://creativecommons.org/licenses/by-nc-nd/2.0/deed.en>

Most people in the United States call these animals buffalo, but bison is their scientific name. True buffalo are found in Africa and Asia.

Bison are the largest land animals in North America. An adult bison stands about six feet tall at the shoulders and can weigh as much as 2,000 pounds. About 150 years ago, 30 million of these huge animals wandered the American plains.

Native Americans depended on bison to live. They used bison for food, clothing, tools, shelter, and fuel. The bison also played a central part in the religion and stories of many Native Americans.

Centuries of hunting by Native Americans did not reduce the country's bison population. That's because Native Americans hunted only for what they needed. But between 1800 and 1900, white settlers and hunters killed almost all of the bison. Bison became endangered, and their numbers fell to about 2,000 animals. Settlers shot bison to make room for cattle, which they wanted

to raise on the plains. Hunters sold bison hides for high prices, so they shot as many bison as they could.

In 1894, Congress banned bison hunting. Over the next century, bison began to make a comeback. About 20,000 bison now live freely on the plains, where millions once roamed. Wild herds also live in several national parks, such as Yellowstone National Park.

Native Americans are bringing bison back to their tribal lands, too. The bison may help to restore some land in that ecosystem. All of the plants, animals, and nonliving things in an area work together to make up the area's ecosystem. Bison help the ecosystem by moving continuously while they are grazing. In this way, they don't overgraze the tall grasses that protect smaller animals, such as prairie dogs.

In the early 1900s, bison almost became extinct. Today, their numbers are growing. This animal of the American West is once again grazing and roaming the prairie.



©2010 by Travel Aficionado in Flickr. Some rights reserved <http://creativecommons.org/licenses/by-nc/2.0/deed.en>



# Young Inventors: Louis Braille

volume 4  
issue 2



© 2006 by Ross Day in Flickr. Some rights reserved <http://creativecommons.org/licenses/by-nc-sa/2.0/deed.en>

What do most people do at age 15? Maybe you have an older brother or sister who plays basketball or piano. Louis Braille was busy at 15, too. He was inventing Braille, the language that helps blind and visually impaired people read and write.

Louis Braille became blind accidentally when he was three years old. When he was seven, he was enrolled in a school

for the blind. The school taught him how to read by feeling the raised shapes of alphabet letters. There were problems with raised alphabet letters, though. Few books were printed with this method, and those books were huge. In addition, blind and visually impaired people couldn't write with this method.

One day a soldier came to Braille's school to talk about a secret communication system used in the army. Soldiers need to communicate quietly and in the dark, so they invented a system that allowed them to write messages with raised dots. This system used 12

raised dots and dashes that the soldiers read with their fingertips.

Braille analyzed this system and found it too complicated. His system used only six raised dots. Braille arranged the raised dots into three rows, with two places in each row. Braille gave each letter and number a code. For example, the code for the letter "a" is one dot in the first spot in the first row.

Louis Braille's language was easy to read and write. By using only six dots, all of the dots fit under a reader's fingertip. This meant that books written in Braille were smaller and cheaper to make. Now, blind and visually impaired people had a language that allowed them to read and write easily.

Anyone can invent things. Look around you. What might you invent that could make someone's life easier?



© 2008 by Christian Liechti. Some rights reserved <http://creativecommons.org/licenses/by/2.0/deed.en>



For more information about TextProject and *FYI for Kids*, visit [textproject.org](http://textproject.org) v.1.0 © 2013 TextProject, Inc. Some rights reserved (<http://creativecommons.org/licenses/by-nc-nd/3.0/us/>).

# Standing on Your Own



©2007 LinksmannD in Flickr. Some rights reserved <http://creativecommons.org/licenses/by-nc-nd/2.0/deed.en>

When you were born, you could not walk. At first, your parents carried you in their arms. They may have carried you in a backpack. They may have put you in a stroller.

Many baby animals need help moving around, too. But animal parents help their babies in different ways. Some animal babies can stand on their own soon after they are born. Cow and

goat babies struggle to stand up, but then they walk by themselves.

Kangaroo babies move from place to place in their mothers' pouch. A kangaroo's pouch is like a bag, but it is part of the mother's body. The baby kangaroo sleeps and eats in its mother's pouch. When the baby kangaroo is big enough, it climbs out of its mother's pouch and hops on its own.

Anteaters have one baby at a time. After they are born, anteater babies climb onto their mother's back. That's because their mother's claws are so sharp, she can't

pick them up. A baby anteater stays on its mother's back for six to nine months.

Unlike most spiders, wolf spiders don't leave their eggs to hatch on their own. Instead, wolf spiders carry their egg sac until their babies hatch. Then the baby spiders crawl onto their mother's back, where they hold on until they are ready to travel on their own.

Like most spiders, most fish leave their eggs to hatch on their own. Cichlids are different. Mother cichlids watch over their eggs. Sometimes, they hold their eggs in their mouth. When the eggs hatch, the baby cichlids stay inside their mother's mouth until they're ready to swim on their own.

Your parents probably helped you move around in many of the ways these animals' parents did. The only way your parents did not carry you around was like the baby cichlid's mother. They didn't carry you inside their mouth!



©2007 by Ken Schwarz. Some rights reserved <http://creativecommons.org/licenses/by-nc-nd/2.0/deed.en>



# Nicknames

What's your name? Do people call you by your full name, or is there another name they use? People often call each other by a nickname, or another form of the person's name. Sometimes, nicknames are shorter than the person's real name. Robert might be called Bob or Rob. Or Katherine might be called Kathie, Kate, or Katy. Sometimes, the



©2013 by Indiana Dunes National Lakeshore in Flickr. Some rights reserved <http://creativecommons.org/licenses/by-nc-nd/2.0/deed.en>

nickname is almost as long as the real name. Robert might also be called Bobby, and Charles might be called Charley.

Some nicknames, though, have nothing to do with a person's real name. A young child might call a new baby by a name that sounds similar to the baby's name. For example, the baby's name might be Peter, but the young child might call him Peeps. Then, everyone in the family begins calling the baby Peeps. Some people even keep these nicknames when they get older.

A nickname can also be a shorter form of a person's

last name, too. A person whose last name starts with Mac, such as MacBain, might simply be called Mack.

Often, nicknames are just silly names that friends call each other. A boy named Jeff might give his friend Bob a special name like Sparky because Bob is a fast runner. Then Bob might give his friend Jeff a special name like Hot Dog because Jeff likes hot dogs.

Sometimes nicknames are used to make fun of people. Someone who doesn't have a lot of friends might be called Wimpy, or someone who is sad about something might be Grumpy. People should not use nicknames like these because they are unkind, and they make others feel bad about themselves.

Nicknames can be a way in which friends make each other feel special. They can be a private language between friends. Nicknames that make people feel happy are fun. However, nicknames that are unkind should never be used.



©2007 by Charity in Flickr. Some rights reserved <http://creativecommons.org/licenses/by-nc/2.0/deed.en>



# Sammy Lee: Olympic Diver

As a child, Sammy Lee loved to swim at a community pool in California. However, although Sammy wanted to swim every day, he could not. Because he was Korean American, Sammy was only allowed to use the pool one day a week.

Then Sammy saw a boy dive into the water. He wondered how the boy could dive without making a splash. Sammy

needed a place to practice diving, so his coach dug a pit that he filled with sand. Sammy practiced diving by jumping into the pit. Finally, Sammy found a pool where he could practice, and he began to experiment with diving techniques, such as doing flips in the air.

Sammy's father insisted that his son become a doctor. He wanted Sammy to have a career that would earn him both respect and money. For as long as he could, Sammy continued to train to be a diver and study to be a doctor. However, Sammy finally had to stop diving because his studies took up all of his time.

After he graduated from college, Sammy joined the army as a doctor. There was no time for diving during the Korean War, but Sammy began to practice again after his service ended. He began winning awards again, too, and soon he qualified for the Olympic diving team. He won a gold and a bronze medal in two diving events in the 1948 US Olympics. Sammy was the first Korean American to win a medal at the Olympics. Four years later, in the 1952 Olympics, Sammy became the first man in the world to win two gold medals in an Olympic diving event.

After Sammy stopped diving in competitions, he coached other divers. Some of Sammy's students also became Olympic athletes and won gold medals in diving. Sammy never gave up his passion for diving or medicine, and he worked hard to include that passion in whatever he did.



©2010 by Singapore 2010 Youth Olympic Games in Flickr. Some rights reserved <http://creativecommons.org/licenses/by-nc-nd/2.0/deed.en>



©2009 by Jim Mullhaupt. Some rights reserved <http://creativecommons.org/licenses/by-nc-nd/2.0/deed.en>



# Tall Tales

How tall can a tale be? You may know about Paul Bunyan and Babe, his blue ox. One tale says that Paul Bunyan was sitting by a river, combing his beard with



a pine tree. Then the river threw 400 gallons of water into his beard. Bunyan got so mad that he decided to straighten the bends out of the river. He hitched his ox Babe to the river, and Babe yanked it into a straight line. That's a tall tale!

People in the United States began inventing tall tales in the early 1800s. In those days, pioneers had a hard time just staying alive. A dry period could ruin the crops. A blizzard could kill the farm animals. A wild animal could jump out from behind a tree.

Tall tales helped people laugh at their troubles. They also helped people make scary situations less frightening. If you were a pioneer, for example, you might walk out of your cabin and meet a hungry bear. Later, you might tell a tall tale about a man named Davy Crockett, who

wrestled a bear and won. The story could help you think that bears were a little less frightening.

There were also contests that tested how well people told tales. Each person tried to tell a better story than everyone else.

Tall tales helped people pass the time on long, dark nights, too. Sometimes the only light the pioneers had was from a campfire, and it was safer for people to stay together than to go out alone. Tall tales helped them pass the time and keep from feeling scared of the wilderness around them.

So, the next time you're scared of something, make up a tall tale about it. The sound of thunder might make you think of giants bowling. That could make you laugh instead of feeling scared, just like the pioneers did.



# What's Out There?



© 2011 by Bruno Sanchez-Andrade Nuno. Some rights reserved. <http://creativecommons.org/licenses/by/2.0/deed.en>

For thousands of years, people have looked up into the night sky and wondered what was out in space. Even in the 1970s, little was known about the planets in our solar system that lie beyond Mars. Scientists wanted to study the outer planets, but they didn't have the money to launch lots of spacecraft. Then scientists calculated that by using a planet's gravity to boost the speed of the

spacecraft they could visit more than one planet. This idea worked best if the planets were near one another.

In the mid-1970s, scientists discovered that Jupiter, Saturn, Uranus, and Neptune would be near one another for about ten years. They calculated that this would not happen again until the 2150s. Scientists wanted to take advantage of this rare occurrence by building spacecraft that could travel to these outer planets.

The spacecraft they built, called Voyagers 1 and 2, were launched in 1977. That's more than 36 years ago! Both Voyagers reached Jupiter in 1979. They reached

Saturn in 1980 and 1981. Voyager 2 reached Uranus in 1986 and Neptune in 1989.

Scientists gathered thousands of pictures and data from these planets and their moons. They discovered many things, including that Jupiter, Uranus, and Neptune all had rings around them, like Saturn. Scientists also discovered more moons around all four planets and active volcanoes on one of Jupiter's moons. They even found an ocean of boiling water on Uranus.

After both Voyagers studied the planets, scientists decided to send them to outer space. Scientists wanted to know lots of things, such as: Where does our solar system end?, What is it like so far from the Sun?, and How far does the Sun's magnetic field reach?

Scientists hope they will learn much more before the Voyagers' power runs out in 2020. Right now, they have gone farther than any spacecraft has ever gone. The data they have collected has helped people better understand what is out in space.



Illustration of Voyager spacecraft. Release into public domain by the National Aeronautics and Space Administration.



# Young Heroes: Katie Stagliano's Dream

©2008 by Sodevo USA in Flickr. Some rights reserved <http://creativecommons.org/licenses/by/2.0/deed.en>



How can kids become heroes? Do they have to save the world? No. To become a hero, kids just have to think about what others need and find a way to help.  
Katie Stagliano

is one of those hero kids.

Katie loved to garden. When she was 9, she harvested a huge cabbage. It weighed 40 pounds! The cabbage was far bigger than her family needed, so she thought about what to do with it.

She knew that there were lots of hungry people in South Carolina, where she lived. So she decided to donate her enormous cabbage to a soup kitchen. It helped feed more than 275 people!

Then Katie thought about other gardeners who had more vegetables than they could eat. Suddenly, she saw a way to solve both problems. Katie realized that she could help end hunger by encouraging kids to plant vegetable gardens and donate their harvest to hungry people. That's how Katie's Krops was born.

Katie says, "My dream is that there are no hungry people." To make that dream real, Katie got her whole school involved. The students planted a huge garden, but Katie knew she could do more. She contacted an organization called Fields to Families, which sent a master gardener to help.

"It's so great to help people," Katie adds, but kids don't have to grow huge cabbages. If they could grow "even one vegetable plant and donate the harvest to a local soup kitchen, we could make a huge difference in the fight against hunger."

It's been five years since Katie Stagliano started work on her dream. Today, more than 60 gardens around the United States are being grown by kids. Young gardeners have donated tens of thousands of pounds of fresh vegetables to stop hunger.

Sadly, many people are still hungry. However, Katie's Krops, and hundreds of child gardeners, are planting and harvesting to change that.



Image of a soup kitchen. Taken by U.S. Navy Mass Communication Specialist 3rd Class Cristina Gabaldon. Released into public domain by the United States Navy.



For more information about TextProject and *FYI for Kids*, visit [textproject.org](http://textproject.org) v.1.0 © 2013 TextProject, Inc. Some rights reserved (<http://creativecommons.org/licenses/by-nc-nd/3.0/us/>).

# Pianos: The Loud and the Soft

©2010 by Dave Blacklow. Some rights reserved <http://creativecommons.org/licenses/by-nc-sa/2.0/deed.en>



Suppose a friend said, “I want to play the soft-loud!” You might be puzzled. What your friend means is that she wants to play the piano.

The piano was created

in Italy in 1700. Before this time, many people played harpsichords. Harpsichords, too, have a keyboard and strings inside a wooden case. However, on a harpsichord, the player cannot control how loud the tones are. In contrast, the notes on a piano can be played softly or loudly. The Italian words for *softly* and *loudly* are *piano* and *forte*. That’s why the instrument was named the *piano-forte*, or *soft-loud*.

By the 1800s, pianos became less expensive, so many families could buy one. Pianos were also built in different shapes, which could fit into many homes. In Germany and Australia, pianos were even built into sewing tables so women could both play the piano and sew.

How does a piano make its sound? The white and black keys on the keyboard are connected to strings

inside the instrument. One to three strings are connected to each key. Low notes have one string and high notes have three. When a key is pressed, a felt-covered hammer hits the strings, which vibrate to produce a note. Each of the piano’s 88 keys plays a different note. As in other instruments with strings, the piano’s wooden body amplifies the sound.

You might think that the piano is in the string family because its notes are made with strings. However, the piano is a percussion instrument. The percussion family includes drums, cymbals, and other instruments that make sounds when someone hits them.

Today, there are acoustic pianos and electric pianos. Acoustic pianos do not use amplifiers. In contrast, electric pianos need amplifiers to make sounds. Electric pianos are often used whenever people move their pianos around. You may have seen an electric piano in your favorite rock band. Today, the “soft-hard instrument” is everywhere!



©2006 by Mélanie in Flickr. Some rights reserved <http://creativecommons.org/licenses/by-nc/2.0/deed.en>



For more information about TextProject and *FYI for Kids*, visit [textproject.org](http://textproject.org) v.1.0 © 2013 TextProject, Inc. Some rights reserved (<http://creativecommons.org/licenses/by-nc-nd/3.0/us/>).

# Painting on the Walls

Image: Painting of a bison in the cave of Altamira. Image released into public domain by photographer, Ramesses in en:Wikipedia.



Bulls dash across a field. Saber-tooth tigers run from hunters. A person watches the sun rise. People have painted their hopes and dreams on the walls of caves

for thousands of years. Scientists called archaeologists study pictures like these and other objects to learn how people lived in the past.

The oldest paintings found in Europe are in the Altamira caves in Spain and in the Lascaux caves in France. These paintings were made by Stone Age people in prehistoric times, about 27,000 years ago! They show deer, mammoths, horses, and people. Some show hunting scenes. Some just show human hands.

Native Americans also painted on cave walls. In fact, the oldest cave paintings found in North America were painted about 6,000 years ago. These paintings, which are in Tennessee, also show animals that the Native Americans might have hunted, such as wolves and foxes. Other paintings might represent the people's spiritual

beliefs. They show people dancing, celebrating, and changing into animals.

The ancient people of the Kimberley area, in Australia, also painted on the walls of caves. Their work is still being studied, but scientists think it may be the oldest cave art ever painted. In fact, it may have been painted as long as 65,000 years ago! One painting shows four men in a boat. Others show fish, possums, and human hands and feet.

Archaeologists don't know why early people painted on cave walls. Perhaps the painters were going out to hunt, and they showed what they hoped would happen. Perhaps they were celebrating a successful hunt. They may have been decorating their living spaces, creating art, or just telling stories. Because they left no written records, archaeologists can't be sure. But it is exciting to look at cave paintings and guess what our distant relatives saw, thought, and dreamed.



©2005 by Mariano in en:Wikipedia. Some rights reserved <http://creativecommons.org/licenses/by-sa/3.0/deed.en>



# Checkers: A Very Old Game

©2013 by University at Buffalo Library in Flickr. Some rights reserved <http://creativecommons.org/licenses/by-nc-sa/2.0/>



What's your favorite game? Today, video games are popular, but they're only about 60 years old. People around the world have been playing games

for thousands of years—long before computers were invented. Many of these games were played on boards, like checkers. In fact, checkers is one of the oldest board games still being played today. There is evidence that ancient Egyptian pharaohs played checkers years ago.

Checkers may also have been played centuries before the pharaohs played it. Some historians think that the first “board games” were played when people scratched a pattern in the dirt. They then may have moved stones, bones, or shells around on this “board.” The games might have been played for fun, but they might also have been used to practice the things people did every day, such as hunting and trading.

Checkers, which is played by two people, is played on a board with eight rows of squares. Players move small

pieces, called men, with each turn. Men are only moved diagonally, not forward or backward.

Checkers is a strategy game. This means that players plan how they will play. Having a strategy allows players to think several moves ahead. The goal is to capture the opponent's men by jumping over them. The game ends when a player captures all of the opponent's men.

Countries around the world have groups called Checkers Federations that organize competitions. The World Draughts Federation was formed in 1947 to organize and regulate these competitions. (Draughts is another name for checkers.)

Today, many players wish that checkers, and other mental games such as chess, were part of the Olympics. They consider these games to be mental sports. Whether or not checkers will ever become an Olympic sport is uncertain. What is certain is that people have played games for thousands of years, and they will probably play them for thousands more.



©2011 by Lionel & Heidi in Flickr. Some rights reserved <http://creativecommons.org/licenses/by-nc-nd/2.0/>



For more information about TextProject and *FYI for Kids*, visit [textproject.org](http://textproject.org) v.1.0 © 2013 TextProject, Inc. Some rights reserved (<http://creativecommons.org/licenses/by-nc-nd/3.0/us/>).

# How Insects Live in Winter



©2009 by Iono Kame in Flickr. Some rights reserved <http://creativecommons.org/licenses/by-nc-nd/2.0/>

Summer is most insects' favorite time of year. Yet, neither fall nor even winter stops all insect activity. Many insects disappear from view, but a few enjoy winter's freezing temperatures.

Indeed, some insects are only seen in winter. The largest group of snow insects are in the springtail family. Springtails get their name from the way they

move. They have a spring-like tail that releases to make the insect jump. One kind of springtail is the snow flea. Snow fleas are very small, but they're not true fleas. However, they do like the snow, and they jump like fleas.

Most insects don't like the cold weather, though. That's because, like snakes, insects can't make their own heat. They have to get heat from their environment. Insects also have a lot of water in their bodies, like humans do. But because insects are so small, they can freeze to death in cold weather. To stay alive, different types of bugs do different things.

Some insects hibernate. Hibernating insects are not asleep. Instead, they move very slowly so they don't use too much energy. Ladybugs hibernate in large groups on or under the bark of trees. They can make a whole tree look orange. When some insects hibernate, they replace the water in their bodies with a sugary substance that prevents them from freezing.

Other insects, like ants and honeybees, stay close together to keep warm. Ants spend the summer gathering food, which they store in their underground homes. That allows them to spend the winter under the ground, where it's not so cold. Honeybees stay close together in their hives. They keep warm by vibrating their wings.

Some insects leave town in the winter. Monarch butterflies fly to warmer places. Some travel as far as 2,000 miles to find warmer winter weather.

Insects have many different ways to survive until it's spring again. How do you stay warm in the winter?



©2008 by David Slater in Flickr. Some rights reserved <http://creativecommons.org/licenses/by/2.0/>



# Minding Your Business



Where do you buy chocolate? You probably go to a store near your home. The store might not sell the special chocolate you like, but it's close to home.

Suppose a new candy store opens nearby, and the owner is making the chocolate you like. The owner doesn't know if the store will be successful. He sells only a few types of chocolate, so he is taking a risk that people

will buy the kinds of chocolate he has chosen to make. He understands that he might not be able to stay in business because customers might not buy his chocolate.

This person is a type of business owner called an entrepreneur. An entrepreneur is someone who starts a business and is willing to risk losing money to try to make money. He must spend money on ingredients for the chocolate, rent for the store, pay for workers, and many other things. These are his costs. If he makes more money than he spends, that money is called his profit.

Many people become entrepreneurs because they

think they have a good idea for a business. In fact, a man named Milton S. Hershey was an entrepreneur in the late 1800s. Hershey opened several businesses that sold caramel candy. His first two businesses did not make a profit, but his third business did. Then he decided to add chocolate to his caramel candy. That was how the Hershey Chocolate Company started more than 100 years ago.

If you have ever opened a lemonade stand, you are an entrepreneur, too. You probably found that in order to make a profit, you had to earn more money than you spent. Your costs probably included lemons, sugar, and cups. They might also have included posters and markers.

Entrepreneurs are hard workers who think they have a good idea. What new business might you be interested in starting?



# Raisins: A Sweet Treat



©2012 by carac3 in Flickr. Some rights reserved <http://creativecommons.org/licenses/by-sa/2.0/>

Soft and chewy, raisins hide in cookies and other sweet desserts, waiting for someone to bite into them. Raisins are easy to find today, but thousands of years ago raisins were rare. In fact, people in ancient Rome could even pay their taxes in raisins.

Although they look quite different when they are growing, raisins are actually dried grapes. As they grow, raisin grapes

make sugar by using sunlight and water. They grow on vines and are not picked until they are very ripe. Grapes that are not yet ripe are not very sweet.

After grapes are harvested, they are dried. It takes about 4.5 pounds of grapes to make one pound of raisins. That's because they lose weight during the drying process. When the grape liquid evaporates, it leaves the sugar behind. That's why raisins taste sweeter than grapes.

Grapes were first grown in the Middle East at around 6000 BCE. Later, people noticed that if they dried ripe

fruit in the sun and the air, the fruit wouldn't rot. Since they could preserve fruits, people could eat them all year, not just at harvest time. Soon, grapes, dates, figs, and other fruits were being dried.

Spanish explorers brought grapes to the Americas in the 1700s. They found that California and Mexico had long growing seasons and lots of water, which grapes need to grow well. Soon, they were making both wine and raisins from their grapes.

Today, raisins are shipped from farms to bakeries, where they're baked into cookies, cakes, and muffins. Some go to stores, where people buy them to bake into cookies, breads, puddings, and muffins. They also add them to cereal. People also eat them as a snack all by themselves.

Raisins are a favorite food throughout the United States. In fact, each person eats an average of 1.3 pounds of raisins per year. How do you eat raisins?



©2009 by Haley J. in Flickr. Some rights reserved <http://creativecommons.org/licenses/by-nc-sa/2.0/>



# Playing by the Rules



©2011 by Cory Cousins in Flickr. Some rights reserved <https://creativecommons.org/licenses/by-nc-nd/2.0/>

Do you raise your hand when you want to speak in school? If so, you have followed a rule. Rules can be as simple as raising your hand and as complicated as knowing when you are “out” in a game.

Laws are rules, too, but they are made differently. Rules can be made by anyone. You probably make rules when you play with friends. Rules ensure that

you can play without fighting about what’s fair. If you change your minds, you can change the rules. Sports, such as hockey and softball, are played by rules, too.

In contrast, laws are made by elected representatives. Voters agree to allow their representatives to make laws that ensure that everyone stays safe and is treated fairly. Laws can’t be changed as often as rules, so representatives consider laws carefully before making new ones.

Being a good citizen involves following rules and obeying laws. The biggest difference between rules and

laws is the penalty for breaking them. If you break a rule, your penalty might be as small as losing a turn in a game. If a person breaks an important law, though, the penalty might be a fine or time in prison.

Parents make rules that help children stay healthy and safe. Having a bedtime is a rule. Rules at home might also include doing chores, such as washing dishes or cleaning your room.

Teachers make rules to help students learn and stay safe. Asking permission to use the restroom lets the teacher know where you are. Also, raising your hand before asking a question helps the class focus on the lesson.

Adults follow rules and obey laws, too. Traffic laws ensure that people travel safely. You follow traffic laws, too, when you cross the street at a corner instead of jaywalking.

Rules and laws keep everyone safe. They ensure that people work and live together in peace and fairness.



©2007 by jeweledlion in Flickr. Some rights reserved <https://creativecommons.org/licenses/by-nc-nd/2.0/>



# Garden Homes

©2012 by University of Salford Press Office. Some rights reserved <https://creativecommons.org/licenses/by/2.0/>



Suppose you are going to a hotel with your family. You'd probably expect to find a room with a bed, a TV, and a bathroom. What might you find in an insect hotel?

Insect hotels don't have beds or TVs, but they do offer ideal "homes" for insects. They can be as small as a backpack or as large as a car.

The idea of creating insect hotels began in Germany. The people there noticed that many insects are in danger of becoming extinct because humans are changing their environment. They decided to create an environment that would protect insects and help them do their work.

They found that different insects prefer different materials. Some insects like wet environments, while others prefer dry areas. Wood, sticks, hay, and leaves are some materials bugs find cozy. Insect hotels may also include sections, or "rooms," that appeal to different insects. Damp rotting logs attract beetles, for example, while dry twigs attract ladybugs.

Why would someone attract insects? Insects are helpful in many ways. Some eat other insects that bite or sting us. Some carry pollen between flowers, which helps plants make seeds.

Hotels for insects may be new, but beehives are not. Humans have been creating homes for honeybees for more than 3,000 years. This hobby is called beekeeping. Beekeeping helps both bees and people. Bees make honey that we like to eat. They also carry pollen between flowers. In addition, the number of bees is decreasing because people are changing the environment.

People have used logs, pottery, and straw to build beehives. Today, people often build wooden hives that look like boxes. Inside the boxes are compartments for the queen bee, worker bees, and the honey they create.

Insects help people in many ways, from controlling pests to helping plants grow. Making insect hotels and beehives are two ways we can help these animals grow strong, too.



©2011 by Carsten aus Bonn in Flickr. Some rights reserved <https://creativecommons.org/licenses/by-nd/2.0/>



For more information about TextProject and *FYI for Kids*, visit [textproject.org](http://textproject.org) v.1.0 © 2014 TextProject, Inc. Some rights reserved (<http://creativecommons.org/licenses/by-nc-nd/3.0/us/>).



# Young Inventors: Louis Braille

At the bottom of the page is the Braille alphabet that Louis Braille invented. Use this code to read the message in the box. Then sign your name using this alphabet.



⠠⠠⠠⠠⠠⠠⠠⠠

⠠⠠⠠⠠⠠⠠⠠⠠

\_\_\_\_\_

\_\_\_\_\_

Write your name in Braille here.



**a b c d e f g h i j k**

⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠

**l m n o p q r s t u v**

⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠⠠

**w x y z**

⠠⠠⠠⠠

## Comprehension Response Activities

### FYI for Kids — Level 4



For more information about TextProject and FYI for Kids, visit [textproject.org](http://textproject.org)  
 v.1.0 © 2014 TextProject, Inc. Some rights reserved (<http://creativecommons.org/licenses/by-nc-nd/3.0/us/>).  
 ©2008 by Christian Liechti. Some rights reserved <http://creativecommons.org/licenses/by/2.0/deed.en>







Name \_\_\_\_\_

## Sammy Lee: Olympic Diver

Write all these words in the right places to complete this puzzle, which tells some things you learned about Sammy Lee. 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.



army	coached	dive	doctor	flips
medals	Olympic	sand	swim	1952

When he was a child, Sammy Lee loved to \_\_\_\_\_  
in the pool. One day, he saw a boy \_\_\_\_\_ off the side of  
the pool into the water. He wanted to do that, too, but Sammy didn't have a pool  
that he could practice in. Then Sammy's coach told him to practice diving into a  
pit filled with \_\_\_\_\_. The sand was soft, so he wouldn't  
get hurt. Finally, Sammy found a pool where he could practice diving and doing  
\_\_\_\_\_ in the air.

In college, Sammy studied to become a \_\_\_\_\_.  
Then he joined the \_\_\_\_\_ and fought in the Korean War.  
When his army service ended, he started diving again, and he qualified for the  
\_\_\_\_\_ diving team. In \_\_\_\_\_, he became  
the first man in the world to win two Olympic gold \_\_\_\_\_ in diving.

After Sammy stopped diving in competitions, he \_\_\_\_\_  
young divers. Some of his students also won gold medals.

### Comprehension Response Activities FYI for Kids — Level 4



For more information about TextProject and FYI for Kids, visit [textproject.org](http://textproject.org)  
v.1.0 © 2014 TextProject, Inc. Some rights reserved (<http://creativecommons.org/licenses/by-nc-nd/3.0/us/>).  
©2009 by Jim Mullhaupt. Some rights reserved <http://creativecommons.org/licenses/by-nc-nd/2.0/deed.en>



## Tall Tales

There are lots of tall tales about Paul Bunyan and Babe, his blue ox. In a tall tale, people make up stories in which everyday things are bigger, funnier, or less scary. Here is a tale in which Paul Bunyan and Babe move the woods in which he is cutting down trees to a warmer state. But the weather in that state is too hot! Use your imagination to complete this tall tale. Remember to think really big!



Paul Bunyan was seven feet tall and so strong he could lift two \_\_\_\_\_  
 \_\_\_\_\_, one with each hand. One winter, when  
 he was logging up north in the state of Minnesota, he woke up and found that the snow  
 was so deep it \_\_\_\_\_. The wind also  
 was blowing so hard it \_\_\_\_\_.

Because it was so cold, the men in the logging camp couldn't go outside to work,  
 so Paul wove a rope 100 miles long and tied it into a lasso. He threw the lasso around  
 the woods and fastened it to Babe's neck. Then Babe pulled the north woods to the  
 south, all the way to the state of \_\_\_\_\_, where  
 it was hot. In fact, it was so hot that \_\_\_\_\_  
 \_\_\_\_\_.

So, that's when Paul Bunyan invented air conditioning.

## What's Out There?

Write all these words in the right places to complete this puzzle, which tells some things you learned about outer space. 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.

near	Neptune	outer	rings	Saturn
volcano	water	43	1977	1979



Jupiter, \_\_\_\_\_, Uranus, and Neptune are the planets that are farthest away from Earth, in the \_\_\_\_\_ area of our solar system. Scientists wanted to study these planets, but they didn't have enough money to send separate spacecraft to each one. Instead, they figured out that spacecraft could explore more than one planet when the planets were \_\_\_\_\_ one another.

Voyager 1 and 2 were launched in \_\_\_\_\_. They reached Jupiter two years later, in \_\_\_\_\_. Ten years later, Voyager 2 reached \_\_\_\_\_. Scientists already knew that Saturn had \_\_\_\_\_, but they discovered that Neptune, Uranus, and Jupiter also had rings. They found an active \_\_\_\_\_ on one of Jupiter's moons and an ocean of boiling \_\_\_\_\_ on Uranus! Scientists hope that the Voyagers will continue to explore outer space until 2020, \_\_\_\_\_ years after they were launched in 1977.

### Comprehension Response Activities FYI for Kids — Level 4



For more information about TextProject and FYI for Kids, visit [textproject.org](http://textproject.org)  
v.1.0 © 2014 TextProject, Inc. Some rights reserved (<http://creativecommons.org/licenses/by-nc-nd/3.0/us/>).  
©2011 by Bruno Sanchez-Andrade Nuño. Some rights reserved <http://creativecommons.org/licenses/by/2.0/deed.en>





## Pianos: The Loud and the Soft

Write all these words in the right places to complete this puzzle, which tells some things you learned about pianos. 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.



connected	drums	hammer	hits	one
played	sounds	string	vibrate	88

Have you ever \_\_\_\_\_ a piano? Do you know how the piano makes different \_\_\_\_\_?

If you could look inside a piano, you'd see that the white and black keys are \_\_\_\_\_ to strings. When you press a key, a \_\_\_\_\_ hits the strings. The strings \_\_\_\_\_, or move back and forth, and produce the sounds. Pianos have \_\_\_\_\_ keys, and each one plays a different note. Low notes have just \_\_\_\_\_ string, but high notes have three.

Even though pianos have strings, they are not called \_\_\_\_\_ instruments. Instead, pianos are called percussion instruments. \_\_\_\_\_ and cymbals are percussion instruments, too. Percussion instruments make sounds when someone \_\_\_\_\_ them.



## Painting on the Walls

Write all these words in the right places to complete this puzzle, which tells some things you learned about cave paintings. 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.



new	hunt	lived	65,000	people
stories	Tennessee	walls	world	archaeologists

Today, people often have paintings on the \_\_\_\_\_ of their homes. Long ago, when people \_\_\_\_\_ in caves, some had paintings on their walls, too.

\_\_\_\_\_, or scientists who study objects from the past, have discovered paintings in caves all over the \_\_\_\_\_. Cave paintings discovered in Australia may have been painted as long as \_\_\_\_\_ years ago.

Paintings found in Spain and France are probably 27,000 years old. Cave paintings have also been found in \_\_\_\_\_, in the United States.

Compared to the paintings found in Europe and Australia, the Tennessee paintings seem quite \_\_\_\_\_. That's because they were only painted about 6,000 years ago!

Archaeologists are not sure why early people painted on cave walls. Many paintings show animals, and the people may have painted them to show a successful \_\_\_\_\_. The paintings also might have been a way of telling \_\_\_\_\_. Even though they aren't sure what the paintings mean, they give us some ideas about how \_\_\_\_\_ lived long ago.

### Comprehension Response Activities

#### FYI for Kids — Level 4



For more information about TextProject and FYI for Kids, visit [textproject.org](http://textproject.org)  
 v.1.0 © 2014 TextProject, Inc. Some rights reserved (<http://creativecommons.org/licenses/by-nc-nd/3.0/us/>).  
 Image: Painting of a bison in the cave of Altamira. Image released into public domain by photographer, Ramessos in en:Wikipedia.







## Minding Your Business

Write all these words in the right places to complete this puzzle, which tells some things you learned about entrepreneurs. 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.



bars	business	candy	chocolate	lemons
entrepreneurs	money	profit	selling	small

In the 1800s, Milton Hershey started a \_\_\_\_\_ that sold \_\_\_\_\_.

His first two businesses sold caramel candy, but they did not make a \_\_\_\_\_, or earn enough money. In his third business, he added \_\_\_\_\_ to the candy. People liked the chocolate, and the Hershey Chocolate Company is still \_\_\_\_\_

different types of chocolate today. It sells chocolate in long pieces called \_\_\_\_\_ and in many other shapes.

A person who starts a small business is called an entrepreneur. A lemonade stand is one kind of \_\_\_\_\_ business. Kids who make and sell the lemonade are \_\_\_\_\_, too. They buy \_\_\_\_\_, sugar, and cups to make the lemonade. If they earn more \_\_\_\_\_ than they spend, they make a profit.



Name \_\_\_\_\_

## Raisins: A Sweet Treat

Write all these words in the right places to complete this puzzle, which tells some things you learned about raisins. 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.



cereal	cookies	eat	favorite	grapes
harvested	fruit	ripe	snack	1.3

Do you like to \_\_\_\_\_ raisins? Raisins are a \_\_\_\_\_ food all over the United States. Do you know what kind of \_\_\_\_\_ is used to make raisins? They are made from \_\_\_\_\_. The grapes grow on vines and are picked when they are \_\_\_\_\_, or ready to eat. After the grapes are \_\_\_\_\_, they are dried.

People eat raisins in many ways. Raisins are baked into \_\_\_\_\_, breads, and muffins. Some people put raisins on their \_\_\_\_\_ in the morning. Some eat raisins by themselves, as a \_\_\_\_\_. In fact, the average person in the United States eats about \_\_\_\_\_ pounds of raisins every year!

### Comprehension Response Activities FYI for Kids — Level 4



For more information about TextProject and FYI for Kids, visit [textproject.org](http://textproject.org)  
v.1.0 © 2014 TextProject, Inc. Some rights reserved (<http://creativecommons.org/licenses/by-nc-nd/3.0/us/>).  
©2012 by carac3 in Flickr. Some rights reserved <http://creativecommons.org/licenses/by-sa/2.0/>



## Playing by the Rules

Write all these words in the right places to complete this puzzle, which tells some things you learned about rules and laws. 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.



fair	follow	laws	penalty	players
raise	rules	safe	time	traffic

Both your parents and your teachers have made \_\_\_\_\_ for you to \_\_\_\_\_, or obey. In school, you may have to \_\_\_\_\_ your hand before you speak. At home, you may have a certain \_\_\_\_\_ you have to go to bed. When you are playing games with your friends, there are rules you have to follow, too. These rules make sure that games are \_\_\_\_\_, and that everyone has a chance to play and win.

Sports also have rules that \_\_\_\_\_ have to follow. The rules in sports help the players stay \_\_\_\_\_. If they break the rules, players may get a \_\_\_\_\_, which is a kind of punishment.

The rules that governments make are called \_\_\_\_\_. Stopping at a red light and speed limits are \_\_\_\_\_ laws that keep people safe while driving. Rules and laws help us live in peace and fairness.

### Comprehension Response Activities

#### FYI for Kids — Level 4



## Garden Homes

Write all these words in the right places to complete this puzzle, which tells some things you learned about insect homes. 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.



boxes	building	dry	extinct	flowers
beehives	honey	live	rotting	sting

Insects help people in many ways. Some eat other insects that bite or \_\_\_\_\_ us. Some carry pollen between \_\_\_\_\_, which helps new flowers grow.

Many helpful insects are in danger of becoming \_\_\_\_\_, or dying out. Some people are \_\_\_\_\_ homes for these insects that will help keep them alive.

Different insects like to \_\_\_\_\_ in different kinds of environments. Beetles like wet environments, such as damp, \_\_\_\_\_ logs. In contrast, ladybugs use \_\_\_\_\_ twigs to make their homes. Honeybees make their homes in wooden \_\_\_\_\_ that people have built to look like \_\_\_\_\_. Bees live in these hives and make \_\_\_\_\_.















# REVIEW

## Young Heroes: Katie Stagliano's Dream

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



Handwriting practice lines consisting of a solid top line, a dashed middle line, and a solid bottom line. There are 10 such sets of lines provided for writing.



For more information about TextProject and *FYI for Kids*, visit [textproject.org](http://textproject.org)  
v.1.0 © 2014 TextProject, Inc. Some rights reserved (<http://creativecommons.org/licenses/by-nc-nd/3.0/us/>).  
Image ©2008 by Sodexo USA in Flickr. Some rights reserved <http://creativecommons.org/licenses/by/2.0/deed.en>









# REVIEW

## Minding Your Business

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



Handwriting practice lines consisting of multiple horizontal solid lines for writing, with a dotted line at the top of the section.







