

The North Star

Among the **multitude** of stars in the universe, there are a couple that are of great importance to people on Earth. The sun, of course, is one of them. The other is known as Polaris, the North Star. Polaris is special because it is the only star that always appears to be in the same place in the sky. Therefore, Polaris is a great compass. When people in the northern hemisphere of Earth look toward Polaris, they can be certain that they are facing north. The **permanence** of Polaris in the north sky has helped countless people find their destinations.

Before the invention of modern navigation tools, **mariners** relied on Polaris. From the top of their **hulls**, sailors would look for Polaris to figure out their place at sea. They figured out the angle between the star and the horizon to determine their **latitude**. As long as the **equations** weren't **erroneous**, the results were very reliable. Polaris also let sailors determine North, South, East, and West. By knowing directions and their location, mariners could easily navigate their ships.

To those who sail at night, **volatile** storms and dark clouds were more than **nuisances**. They could **disrupt** entire journeys by blocking the view of Polaris. A captain could **err** and make an **inadvertent** wrong turn. The ship could become **stranded** at sea, and the **frantic** captain would have no way to **improvise** to get the ship back on the right course. The mariner's fears wouldn't be **soothed** until the clouds cleared and Polaris came back into view. Even today, sailors sometimes opt to navigate by using Polaris on clear nights.

It's not difficult to **differentiate** Polaris from other stars. The Big Dipper, a constellation that is well known in **astrology**, appears to **revolve** around Polaris. The handle of the Big Dipper always points to the North Star. When people get lost, it's comforting to know that their problems can be **alleviated** by looking at the sky.



The Fossil Hunters

Tim and Dean were great fossil hunters. They were the very best at finding dinosaur bones. Although Tim and Dean were quite similar, they were **outright** enemies. The two men got into **vicious** arguments all the time. They couldn't **coexist** peacefully because their **egos** were too large. Tim thought he was the best fossil hunter, while Dean was sure that he was much better than Tim.

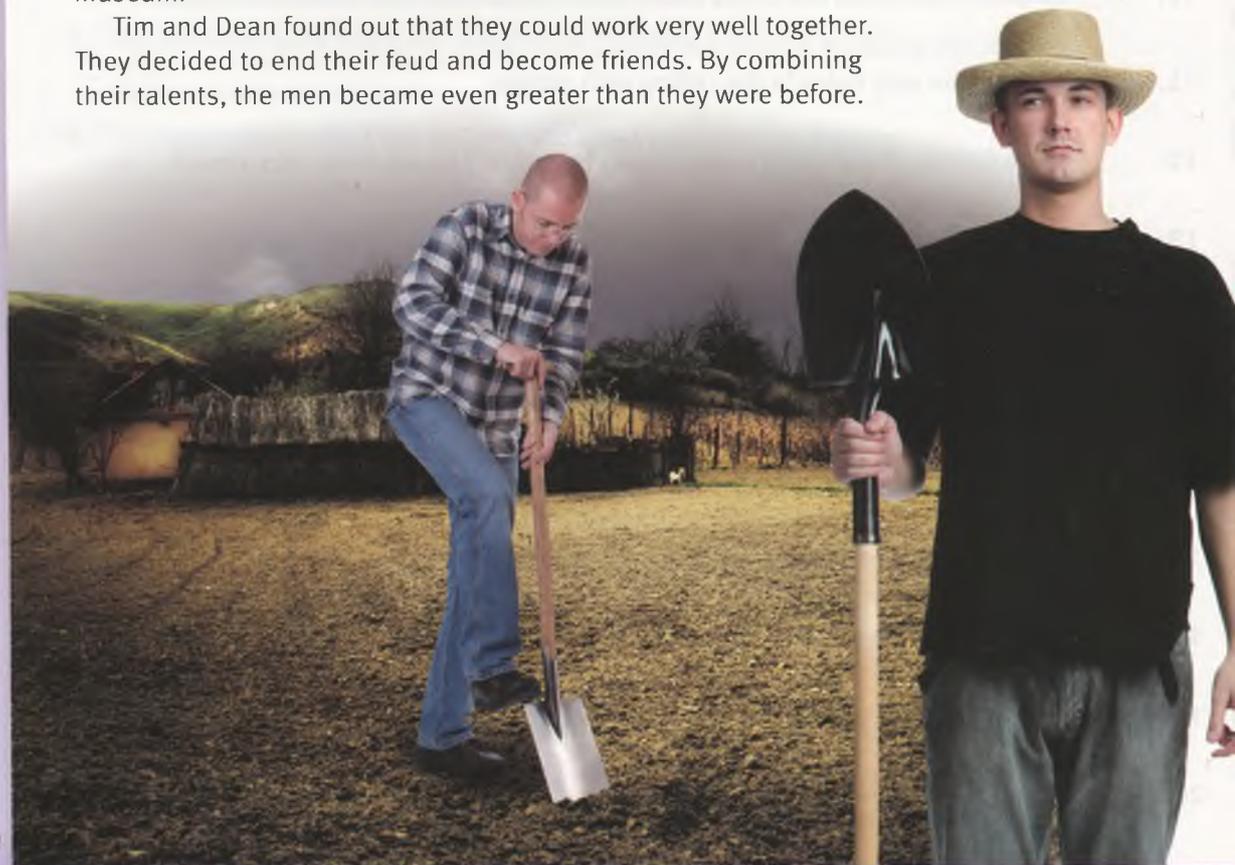
One day, Tim was searching for fossils on the **periphery** of the city when he discovered a huge bone. He had never seen anything like it! He took his **shovel** and carefully **excavated** the dirt around it. As he dug, he uncovered more **jagged** bones. He realized that he had found an entire dinosaur skeleton! Tim couldn't **conceive** a plan to remove the huge skeleton all by himself. Such an **endeavor** would be too **arduous**. He needed help. He tried to think of people who would be capable of helping him remove the skeleton without breaking it. The only person Tim could think of was Dean, his enemy.

Tim ran into the city to find Dean. Tim found him and said, "Dean, I've found the **skeletal** remains of a huge **terrestrial** animal. But I can't get the skeleton out by myself. Will you please help me?"

Dean thought that Tim's claim might be **dubious**. He replied, "If you're serious about the skeleton, I'll help."

Tim excitedly showed Dean the skeleton's **locale**. They worked together to carefully remove each bone. And to keep the bones together, they tied them with **elastic** strips. When they were finished, they had **attained** a perfect skeleton. They used **plaster** to make a **mold** of the dinosaur's skull. They **engraved** their initials into it and gave it to the curator of a local museum.

Tim and Dean found out that they could work very well together. They decided to end their feud and become friends. By combining their talents, the men became even greater than they were before.



Dressed to Excess

If you traveled back in time to the 1700s in Europe, you would laugh when you saw how the **aristocracy** dressed. Soon you'd realize, though, that the **aristocrats** of Europe were very serious about their appearance.

The **predominant** style in women's **attire** was enormous dresses. They were often three times larger than the wearer. Ladies even used **pads** to **enlarge** the appearance of their hips and shoulders. On the other extreme, the aristocratic women made their waists appear extremely thin. It took several maids stretching fabric and pulling **straps** in order to get a lady's waist to the proper thinness. These ladies could barely breathe and often fainted.

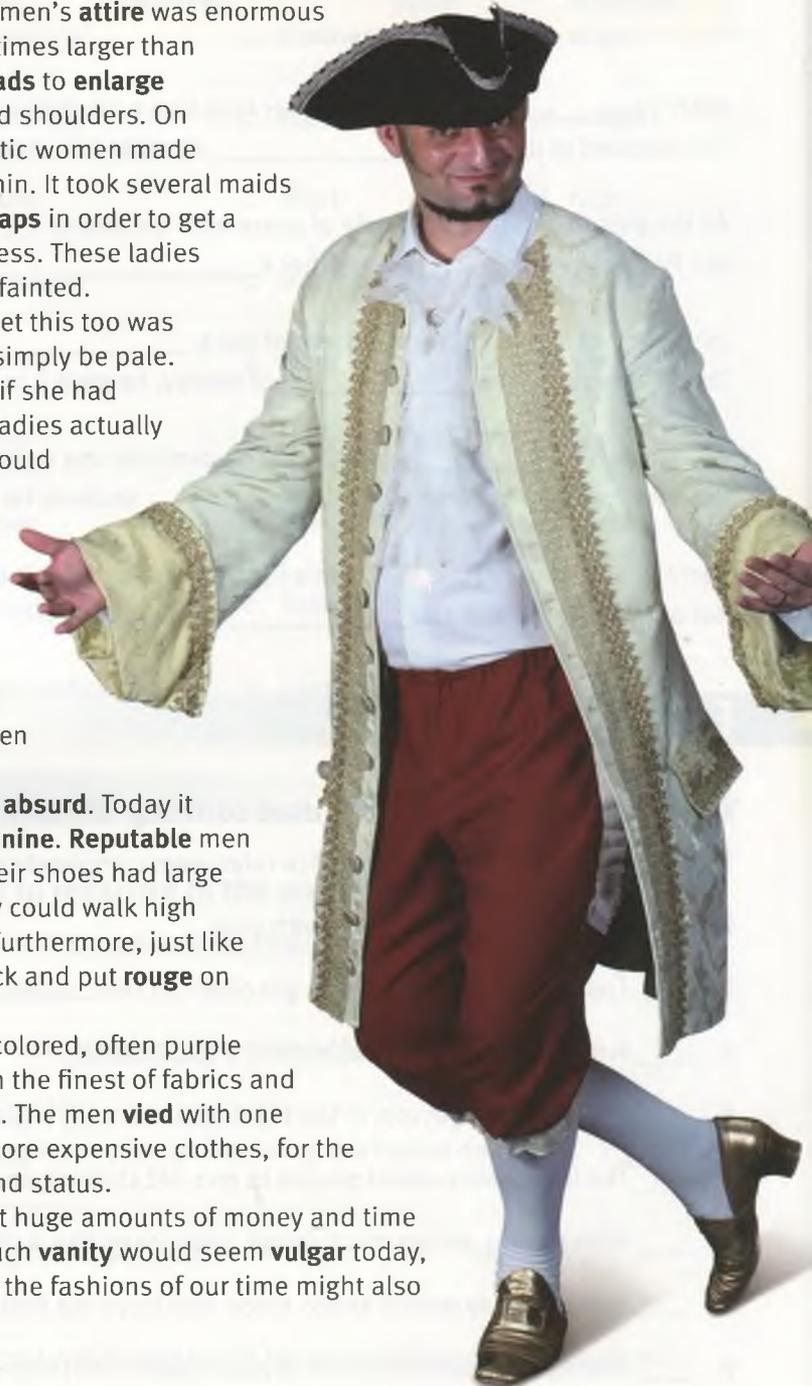
Pale skin was also a **crave**, yet this too was done in **excess**. One could not simply be pale. Instead, she needed to look as if she had **anemia**. In order to look paler, ladies actually cut themselves daily, so they would bleed.

The hairstyles, however, were the **hallmark** of women's fashion. These stood a meter high on the ladies' heads. The columns of hair were a ridiculous **tangle** of wigs, jewels, flowers, and even stuffed birds.

Men's fashion was similarly **absurd**. Today it would probably seem very **feminine**. **Reputable** men wore wigs of long curly hair. Their shoes had large soles or high heels so that they could walk high above the filth on the streets. Furthermore, just like the ladies, the men wore lipstick and put **rouge** on their cheeks.

Their clothes were brightly colored, often purple and pink. They were made from the finest of fabrics and decorated with jewels and lace. The men **vied** with one another to see who wore the more expensive clothes, for the clothing **signified** his wealth and status.

Both men and women spent huge amounts of money and time on how they looked. Though such **vanity** would seem **vulgar** today, three hundred years from now, the fashions of our time might also seem completely ridiculous.



The Butler's Bad Day

The **Superintendent** of **Civic** Projects was a busy man. He worked every day of the week and had fancy parties at his house every night.

However, if there was someone busier than him, it was his butler. He worked all day organizing the superintendent's parties and then cleaned up after them late at night. **Hence**, while the superintendent slept **soundly, snoring** loudly in his bed, the butler was still awake.

Sadly, though the butler was always **overworked**, his profession's **intrinsic** nature demanded he never be **outspoken**. Therefore, his employer never knew the butler hadn't slept for several days. On any day the butler might make a mistake.

One day, the superintendent said, "This **particular** party is important. People from the **ministry** are coming. Everything must be perfect."

The butler began preparing at once. First he went to the **attic** to get more chairs and tables. But on his **descent**, he realized he needed to make the food. A **gourmet** dinner was necessary for such a party. He boiled water in a **kettle** for soup and chopped some beef into **chunks**. Just as he was starting the soup, he remembered that he had to sweep the veranda. As he was sweeping the veranda, he realized that he had to clean the sauna.

By this time, the first guests had arrived. The veranda was still dirty. There were not enough chairs for the guests to sit on, and the soup tasted too **pungent**. Some guests were **dissatisfied**. They started to make a **fuss**, and the party was filled with a **din** of complaints.

The superintendent's party was a disaster. He wondered why his butler had made so many mistakes. At last, the butler admitted to being exhausted. His boss felt pity for the butler. He had no idea the butler was so tired. He said, "You should have told me earlier, then we could have avoided this whole **ordeal**."



A Bet

Russell finished running a **relay** and joined his friend Becky in the cafeteria. He asked, “What’s for lunch?”

“**Sesame** chicken. It’s OK, except the meat’s **charred**. Oh, and watch out for the chili peppers,” Becky said.

“Chilies don’t bother me!” said Russell.

“My stepmother says you should be careful with them,” replied Becky.

An argument **ensued** about eating chilies. “Chilies aren’t so bad. I bet I can take more bites of this chili than you,” Russell said.

Becky was **wary** of eating the pepper. Despite her **reluctance**, she didn’t want to say no to the bet. She **wavered** about whether to do it or not. She **negotiated** the details. “What will the winner get?” she asked.

“The loser has to carry the winner’s books for a year! I’ll even let you go first.”

Becky replied, “Fine, but to **clarify**, you’ll carry my books for the entire school year, right?”

Russell **restated** the agreement, “That’s right . . . I’ll carry your books all year if you win—which you won’t!”

His **dogged persuasion** convinced her. The chili looked **benign**, but Becky knew it could cause a lot of pain. She bit the bottom of the pepper. Surprisingly, she felt nothing.

“My turn,” said Russell. He bit the middle of the chili. Immediately, he seemed to be in **distress**. He **gasped** and his face **alternated** between brave and pained expressions. He experienced an **overdose** of spice. He was on the **verge** of tears and finally let out a horrible cry.

“Take this,” said Becky, handing him her drink.

“That was awful!” he said, continuing to **sip** from the glass.

That night, Becky researched chilies. The next day she said in an **apologetic** voice, “I read that the hot part of chilies is in the middle, where the seeds are. I’m sorry—I feel like I cheated by going first.”

Russell was relieved, not only did he learn something new about chilies, but he learned that Becky was a good friend.



Amazing Komodo Dragons

Once, a British **gazette** had an unusual story. Scientists at a zoo made a discovery about komodo dragons. Komodo dragons are giant lizards that grow up to two and a half meters long. A female lizard at the zoo had babies. However, it had never been around a male lizard in its entire life. After the scientists **publicized** their discovery, many people thought it was **fictitious**.

But it was true. It was discovered that female komodo dragons can have babies without the help of their male **counterparts**. This **contradicts** what scientists know about how most animals have babies.

In most cases, there are many things that can **obstruct** this type of reproduction. For example, adult males and females carry different genes needed to make an **embryo**. If the genes are **homogeneous**, the babies are weaker and have genetic problems. Over time, the weakened species dies out completely. This makes it necessary for the male to be involved. However, scientists **verified** that when Komodo babies are born, their genes aren't the exact same genes as their mother. Also, they are **devoid** of any genetic problems.

Scientists **theorize** that Komodo dragons developed the ability because it helps the species **fend** off extinction. If a volcano erupts, lava can kill all of the komodo dragons on an island. However, as long as one female **eludes** death, she can **prolong** the survival of the species. Luckily, Komodo dragons are **vigorous** swimmers. So the surviving female can **plunge** into the ocean and swim to another island. When she comes **ashore**, she can reproduce by herself. Over time, the genes within the population **diverge**. Then, the **sparse** population increases. Once again there is a **surplus** of lizards on one island. Scientists think that this may be how the lizards took over all of the islands in that area.



Greek Magical Papyri

The Greek Magical Papyri is a collection of writing about magic. After it was found in the Egyptian desert, it took experts years to **decipher** it. The text was written in at least three different ancient languages. After many years, experts realized it contained a number of spells that varied greatly in **scope**.

The most common types of magic in the collection dealt with healing illnesses like **pneumonia**. Some spells also gave advice for treating people with mental illnesses, such as those who became **psychotic**. Some spells asked for unusual things, like crocodile **dung**. But **botany** was an important part of the magic. Many healing spells gave instructions on how to use herbs and plants that were believed to be **therapeutic**. For example, in order to cure **arthritis**, the book says that the magician should build an **ornate altar**. Then he should **mash** different types of herbs and place them on top of it. At **dusk**, he is supposed to say a spell, so the gods would be **gratified**.

Other parts of the collection describe how to **hone** one's **psychic** abilities and how to give **credible** descriptions of the future. Often, the book advised people how to use different objects to tell the future, including tea leaves. Also, one part of the book tells what different dreams might mean. It gives advice for using dreams to tell the future.

A small part of the book, however, is more **sinister** than the rest. It is meant to cause **strife** and **deception**. For example, one tells how to give someone warts, while another will make all of the victim's farm animals die. However, if someone's farm animals died as a result of a curse, he could ask a magician to perform magic that makes the **deceased** come back to life.



Watch Out!

Kevin stepped off the **tram** and walked toward the ship, holding a package tightly in his hands. He had been hired as a **courier** for an important broker. All he needed to do was deliver a package to an office in New York City; the ship would take him there.

When he boarded, the ship was **congested** with people. As Kevin walked to his cabin, he saw the **exclusive** first-class section. Everybody inside was wearing fancy **garments**. He would have liked to **socialize** with the people inside, but it was against proper **etiquette**. People paid a **premium** for the **privilege** to ride in first-class.

Instead, he went to his cabin next to the **freight** section of the boat. His room smelled bad, and the floorboards were **warped** and **deformed** in some areas. He could also hear the motor humming as it waited to **propel** the ship forward. Suddenly, Kevin was **unsettled** by something, but he wasn't sure why.

He took a short walk on the ship's deck, but he still felt strange. That night, he suffered from **insomnia**—he couldn't **suppress** his **obsessing** over how strange he felt.

Kevin went back on deck. It was cold and dark outside. He looked **overboard**, but it seemed that everything was all right. "Just go back inside," he thought. Then Kevin saw it. A giant iceberg was sticking out of the ocean in the distance!

"Help!" he yelled.

People looked at him as if he was crazy, but he continued to shout until he saw the captain.

"There's an iceberg out there," Kevin said to him. "If the ship doesn't move, we're **liable** to crash," he said, pointing toward the iceberg.

The captain saw it and immediately instructed the crew to change the ship's direction. "Without your help, we would have definitely hit the iceberg. That would have been a terrible disaster!" he said to Kevin.

Kevin felt relieved. Now he knew to always trust his **intuitive** sense.

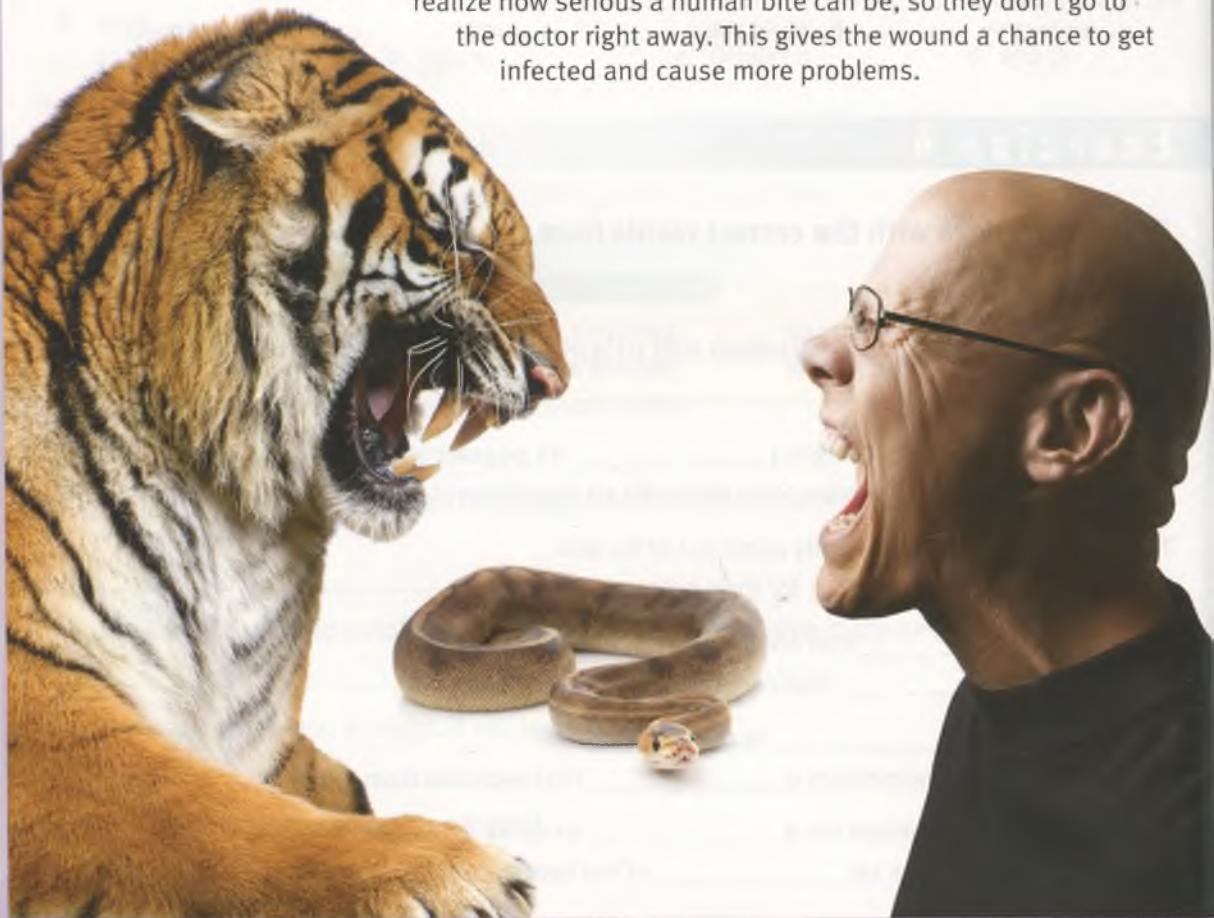


Dangerous Bites

There are many animals with dangerous bites in the world, but which one is the worst? Some would say that the **elusiv**e short-tailed mamushi has the worst bite. The snake only goes into homes to chase **pests** such as mice. Otherwise, it stays in the fields, where it's dangerous to people who **forage** for food there. If someone **stuns** it by accidentally stepping on it, it bites to protect itself. At first, the effects of the bite may seem **negligible** because it doesn't cause a lot of bleeding. However, after a few moments, the venom **induces paralysis** in the area where the individual was bitten. Furthermore, the venom can also **impede respiration**. If the person doesn't go to the doctor, they are **susceptible** to kidney **deterioration**.

Others would argue that tigers have the worst bite. Mother tigers are **inseparable** from their babies and seem to be the gentlest creatures when they are around their young. However, if the babies are threatened, the mother tiger's **savage** nature **prevails**. With strong jaws and the ability to move quickly, the tiger can kill someone with one bite. That's because it always tries to bite an important **artery** when it attacks. If the artery is **ruptured**, the victim will bleed to death.

In the **mainstream**, animal bites are seen as the most dangerous. But some scientists think this idea is **invalid**. In fact, the most dangerous bite might be the human bite. When scientists **magnified** the contents in human saliva, they found about three hundred different **microbes** in it. A human bite can be dangerous if the bacteria enters the body through a cut, which can make people very sick. Furthermore, most people don't realize how serious a human bite can be, so they don't go to the doctor right away. This gives the wound a chance to get infected and cause more problems.



The Avalanche

Randy was a forest **ranger**. Because of his job, he was **secluded** in a cabin in the wilderness.

One day, the radio reported, “**Convection** in the atmosphere is causing a lot of clouds to form. A serious storm . . .” Suddenly, the radio went silent. The signal was lost.

He went outside and looked at the **overcast** sky. Anybody else would have taken the dark sky as an **omen** of a very bad storm, but not Randy. His **upbringing** had taught him **consistency**. He had done this job for years, and nothing could stop him. Besides, he thought nothing could hurt him.

Today, he had a very important task to do. The snow was starting to pile up high on the mountain. If too much **accumulated**, it could cause an **avalanche**. But Randy had an **apparatus** to get rid of the snow. It used dynamite to shake the snow and make the top layer of snow come down.

As the snow started falling, he thought about returning to the office until the storm stopped, but he decided not to. Suddenly, he heard a loud noise behind him. It was an avalanche! He started to run, but within seconds, he was knocked **sideways** and buried by the snow and **rubble** from an old cabin that had been destroyed. An **aerial** rescue team came quickly. Randy was just a **speck** amongst the great pile of snow, but the team found him thanks to his brightly colored jacket. They quickly took him to a hospital.

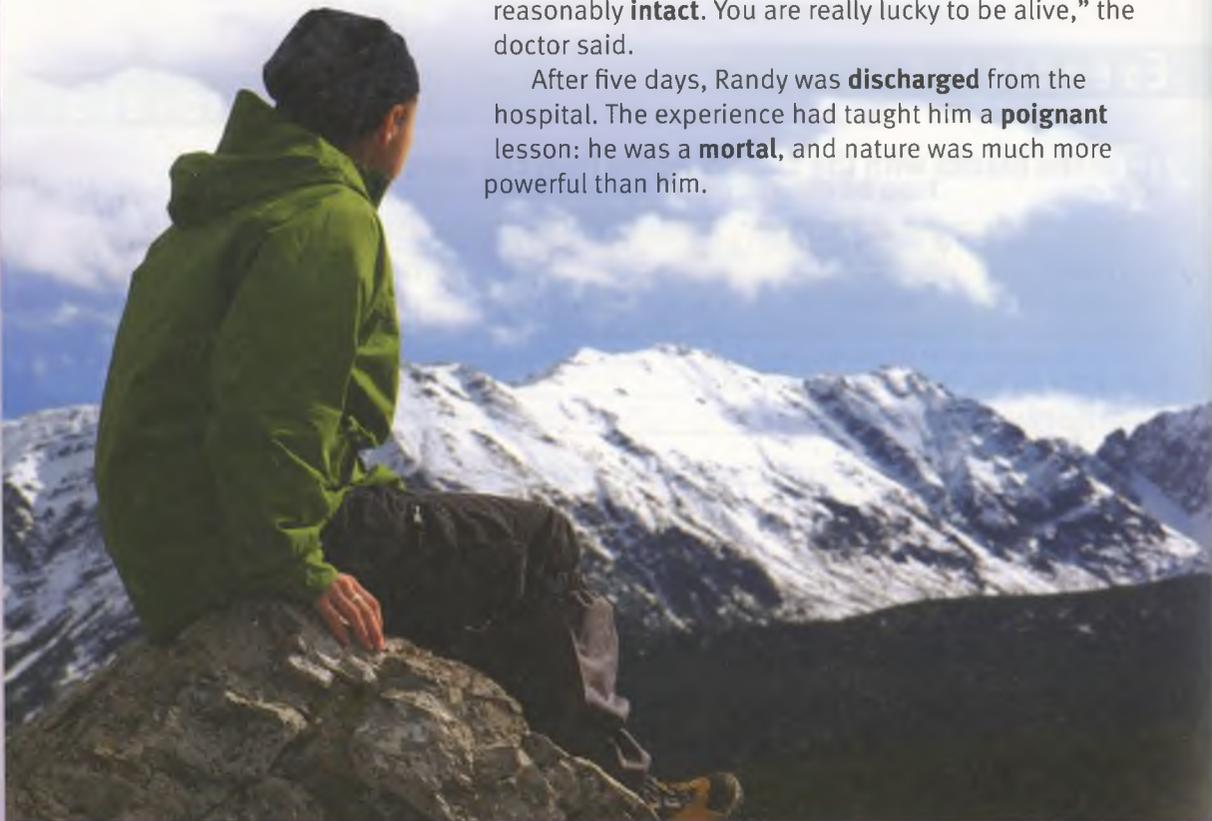
After a few hours, Randy woke up in the hospital. He looked at the **sober** faces of the doctors and saw his wife **sobbing**.

“What’s wrong?” he asked. He didn’t remember what had happened.

“You were almost killed!” his wife said.

“You broke several ribs. But the rest of you is still reasonably **intact**. You are really lucky to be alive,” the doctor said.

After five days, Randy was **discharged** from the hospital. The experience had taught him a **poignant** lesson: he was a **mortal**, and nature was much more powerful than him.



The Lydian King

King Croesus was once one of the richest kings in the world. He ruled over Lydia, an ancient empire located near modern-day Turkey and controlled a valuable **commodity**: gold. Many people were very **envious** of him.

One day, a messenger **disclosed** some interesting news: political **unrest** in Persia had weakened the empire. Before then, the Persians had taken over many countries. Many leaders were scared of the Persian **conquest**. But King Croesus understood the **dynamics** of war better than most. He decided that it would be a good time to try to beat the Persians while they were weak.

He **advocated** starting war, but nobody shared his **sentiment**. Then he asked a wise member of the **senate** who was visiting from Athens. The **sage** didn't say whether he should attack the Persians or not. He only warned him that his good luck wouldn't last.

Finally, King Croesus sent a messenger to visit the Oracle, a special lady who could see the future. The messenger gave the Oracle jugs of wine and baskets of **lentils** in order to make her happy.

When the messenger came back, he was in a **festive** mood.

"What was the Oracle's **prophecy**?" asked King Croesus.

The **jolly** messenger responded, "She said that if you attack Persia, you will destroy a great empire."

The news filled Croesus with **euphoria**. After hearing the Oracle's prophecy, many **civilians** **enrolled** in the Lydian army. The king **marshaled** his troops and prepared them for a war with Persia. Their **morale** was high because they were sure they would win. Soon, King Croesus **authorized** an attack against the Persians.

However, the Persian army was still very strong. After a few months of fighting, it was obvious that the Oracle's prophecy had come true: by attacking the Persians, King Croesus had destroyed a great empire—his own! King Croesus should have considered the advice more carefully.



The Butler

Greta was an elderly lady who lived alone in a huge, **dilapidated** mansion. The mansion was in terrible condition. It was covered with **filth**, and most of the furniture was broken. Plus, the kitchen sink leaked water all over the floor. Greta was too old to do **housekeeping** and repairs herself, so she hired a **butler** named Gordon.

Gordon was a young, muscular man. His muscles were a **testament** to his strong work ethic. He believed that if he worked hard, great things would happen for him. On his first day, he worked for hours cleaning and making repairs. He swept up **mounds** of dirt. He tightened the **valve** underneath the kitchen **faucet** to stop the leak. He even bought **timber** to build new **stools** for the kitchen. He worked so hard that his fingers went **numb**, and he got **cramps** in his shoulders.

Gordon worked hard every day. Even when tasks were boring, he was never **reckless**. He made sure there were no **flaws** in his work. Gordon was worried, however, that Greta wasn't pleased. She never expressed thanks or said that he did a good job. The lack of appreciation **evoked** unhappy feelings in Gordon. He even thought about quitting. But he decided the right thing to do was to keep working hard.

One day, while Gordon was sweeping, Greta said, "Gordon! I have a surprise for you!" He went to Greta's room and saw a beautiful **slate** statue. It looked just like him! It was **adorned** with a banner that read: "Welcome home."

Greta said, "You've made this ugly old mansion look new again. I'm so thankful for your hard work that I want you to have it. I'll move into a smaller house."

He **grinned** and gave Greta a big hug. He said, "I'm in **bliss**! My hard work really paid off!"

The two said their **farewells**, and Gordon spent the afternoon admiring his beautiful new home.



The End of Smallpox

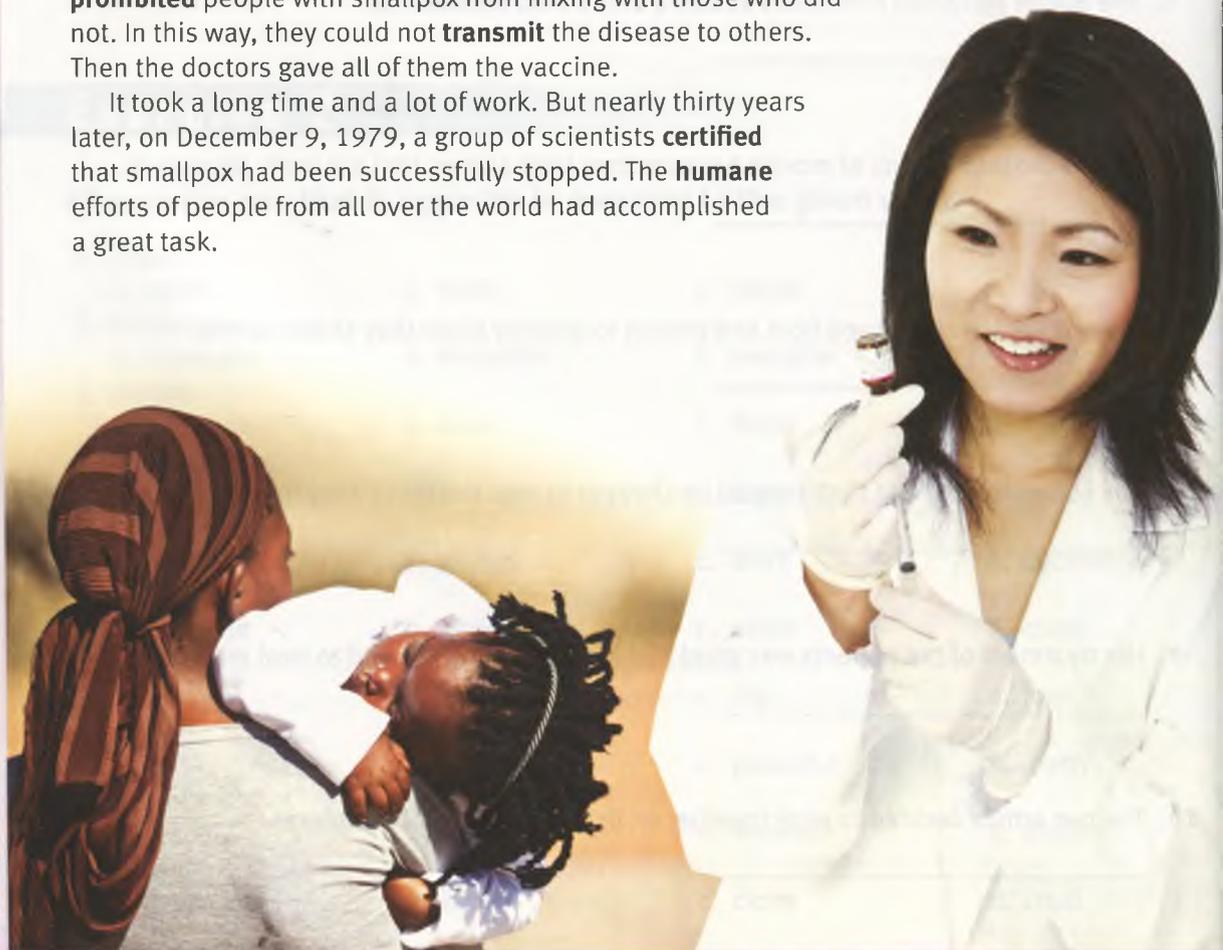
Smallpox was once the most deadly disease in the world. During the 1800s, more than 20 million people got the disease every year. Of those, nearly half died. At the **onset** of smallpox, people suffered from high fevers, headaches, vomiting, and aching muscles. Yet the worst symptom of all was an **intolerable rash** that caused irritation on the entire body. Those who survived the disease were often **rendered** blind or left with **gross** scars on their face and body.

Today, however, cases of smallpox are very rare due to the work of many countries during the late 1900s. This **federation** of countries **collaborated** to completely destroy smallpox. Early in the century, wealthy countries in Europe and North America had developed a substance that made the body immune to smallpox. They had required all their citizens to get this vaccine to **counteract** the disease. Hence, the people of these countries no longer had to worry about smallpox.

However, many of the **needy** people in poorer parts of the world still suffered from the disease. Their countries could not afford the vaccine nor supply enough doctors to **curb** the spread of smallpox.

In 1950, the wealthier countries of the world **vowed** to free the world of the disease. They **pledged** to supply the vaccine to any country that could not afford it. Scientists **compiled** lists of areas where the disease still thrived. Then doctors **diagnosed** people who had the disease in these areas. They **enacted** laws that **prohibited** people with smallpox from mixing with those who did not. In this way, they could not **transmit** the disease to others. Then the doctors gave all of them the vaccine.

It took a long time and a lot of work. But nearly thirty years later, on December 9, 1979, a group of scientists **certified** that smallpox had been successfully stopped. The **humane** efforts of people from all over the world had accomplished a great task.



The Coward's Lesson

Tom was easily frightened. He **enlisted** in the army because he thought the military would teach him courage. And though he needed courage, he never imagined how he would learn it.

During a march across a **tract** of wilderness near his country's **frontier**, Tom **strayed** from his squad. He had stopped to gaze at a **splendid** view of a **lush** valley. When he turned around, his squad was gone. He searched for them, but because their **outfits** had **camouflage**, he couldn't find them.

It was getting dark, and Tom grew **weary**. All he had was a knife, a boomerang, and his **handbook**. He made a camp for the night. It was cold, and the ground was hard. He wished he had his **cot** and a blanket. Instead, he made a fire, wrapped himself tightly in his jacket, and fell asleep.

A loud noise roused him from his sleep. "What was that?" he wondered.

Then he noticed it. An animal of **substantial** size had left a print from its **paw** in the dirt.

He sat closer to the fire and looked into the darkness. He imagined a large beast jumping from the gloom and attacking him. He shook so much from fear that it felt like the **marrow** in his bones **quivered**.

Tom **contemplated** many different plans. He was **hesitant** to act. He decided to stay by the fire, but during his **vigil**, he heard more noises.

He couldn't **contend** with his fear any longer. He knew what he had to do. He made a **torch** and followed the prints. He heard a twig snap very close ahead, but he bravely went on. Seconds later, he discovered what had scared him. It was only a kangaroo.

Tom went back to his camp and slept. In the morning, he found his squad. He had finally learned courage. He learned that he had to confront his fear in order to conquer it.



Epidemic in Zimbabwe

In August of 2008, a deadly cholera **epidemic manifested** in Zimbabwe. A severe health **hazard** caused the outbreak. There was an extreme lack of clean drinking water in the **overcrowded** urban cities. Garbage and chemicals got into the public water supplies and **contaminated** them. Since people did not have access to other sources, they had to drink the dirty water.

The outbreak spread rapidly and infected almost 16,000 people. The illness caused extreme pain in people's **intestines**. It also caused a **deficiency** of important fluids in sick people's bodies. Without the proper fluids and minerals, **metabolic** processes stopped working correctly. People were unable to digest food properly or **replenish** their lost nutrients. If they had not received **viable** treatment, they would have been likely to die. It was **imperative** for help to come soon.

However, the government of Zimbabwe was unable to provide help to its people. The government didn't have a plan to stop the spread of cholera. In addition, the country was too poor to get clean water or medication for the sick. The people seemed to be doomed.

Luckily, many other countries recognized the **paramount** need to contain the outbreak. Dozens of **voluntary practitioners** from Britain, France, the United States, and other countries went to Zimbabwe to treat the disease. Through the **provision** of **sterile** drinking water and medication, people finally got the treatment they badly needed. The **compassionate** doctors were able to save the lives of thousands. By January of 2009, the epidemic was almost completely contained.

Today, the Zimbabwean government is working with other countries to prevent future epidemics. They are cleaning up the water supply and learning how to avoid health hazards. The system used to filter water is being **upgraded**. The government now **administers** the water supply plants and makes sure that they **adhere** to strict safety guidelines. Hopefully, future instances of cholera will be treated before they start deadly epidemics.



The Brute and the Billionaire

Hundreds of people had come to see a popular **satire**, but during the performance a fire started in the theater. The audience and actors **evacuated** the building. Luckily, no one was hurt, and the fire was soon put out. Immediately, the audience assembled into an angry **mob** and demanded to know what had happened.

It was soon revealed that the fire had started **backstage**, and only two people were in the area at the time. One was the husband of the play's star actress, the **billionaire** Henry Rich. The other was the theater's janitor, Bill, a large and strong man who looked like a **brute**.

The crowd **segregated** the two men and demanded to know who the **culprit** was. Most of the crowd thought that Bill was to blame. They felt that he had started the fire without ever **subjecting** him to any **scrutiny**. Bill **resented** this but said nothing.

Luckily, the billionaire's wife **testified** in his defense. "Your decision is **premature**," she told the crowd. "I fell down **amid** the **tumult** while everyone fled the fire. Bill rescued me and carried me out of the building. I think you **underestimate** his character. Besides, in order to be close enough to save me, he couldn't have been near the place where the fire began."

The crowd then turned their eyes to the billionaire. "He did it!" they shouted. "Make him pay!"

"Wait," the billionaire said over the **uproar**. "I admit that I started the fire, but it was an accident. I was going backstage to see my wife and was **clumsy**. I **collided** with a lamp, and it fell to the floor. The floor was **flammable**. A fire started, and I fled."

The mob was surprised. The man they blamed was innocent, and the billionaire was guilty. To pay for his error, the billionaire not only repaired the theater but had it remade to be better than before.



The Tenacious Inventor

A young student of **meteorology** was having a difficult time with an experiment. He was attempting to **duplicate** lightning in clouds. He had made a device that could **simulate** lightning. It worked by releasing an **electromagnetic** pulse into the cloud. This pulse, in turn, **stimulated** the **electrons** in the cloud's particles. Then the electrons produced lightning.

But his **meteorological** experiment had a major **defect**. He couldn't get the device into the sky.

He had tied it to balloons, but they had burst. He had shot the device from a cannon, but the force of the cannon had damaged it.

"You should give up," his friends told him. "You'll never get that thing into the air."

But his friends' criticisms only **spurred** him to try again. The student was very **innovative**, and at last, he thought that he had an **innovation** that would work. He attached wings to the device, and on one **dreary** day, when clouds blocked the light of the sun, he started his experiment **anew**.

He placed the device on a rocket and **launched** it into the sky. The **propulsion** of the rocket carried the device high into the air. The rocket **accelerated** into the clouds and then released the device. It **glided** on its wings through the clouds, and when it **penetrated** the center of a large black cloud, it emitted the electromagnetic pulse. And just as he had predicted, lightning shot from the cloud!

He called his professors, and the next day they came to watch. He successfully duplicated the experiment. His teachers were extremely impressed and called the student and his invention **ingenious**.

The student was given many awards and became a famous inventor. He had not given up. He had remained **tenacious** and succeeded.



The Nurse's Lesson

One of the children in the **nursery** was sick. The child's mother, who was usually quite **vivacious** and **chattered** constantly, was quiet and worried. She knew that if she did not act quickly, the child's condition would **deteriorate**.

She summoned the children's nurse and said to her, "The monks make a medicine that can cure my child's sickness. Please, hurry tonight to the **monastery** and get it."

The nurse immediately hurried from the **manor** to get the medicine. The monastery was far away by Rabbit **Cove**, and there was no **freeway** leading to it. The only way there was to walk along a dark and **winding** trail.

The temperature was close to zero degrees **centigrade**, and it was raining. Luckily, the nurse had grabbed her raincoat **beforehand**. She **zipped** it up and pulled the hood over her head.

"I'll never make it there," she thought. "Perhaps I should return and go in the morning." But she remembered the sick child and decided to continue.

Finally, she arrived at the monastery. It was very late. She feared the monks would not be **hospitable**. But she approached the door and knocked anyway. The rain had **condensed** on the **exterior** of the windows by the door. All she could see was the **profile** of a large man coming to answer the door. Again, she was filled with fear.

But the monk smiled at her when he opened the door. He took her **outstretched** hand and welcomed her with a **heartly** voice. The place was warm, and she heard a **concerto** playing in another room. She relaxed.

"How can I help you?" the monk asked, and the nurse explained the situation.

He instantly knew what to do. He grabbed a **parcel** of medicine and took her back to the manor in a carriage. The medicine worked. The nurse was happy she had persevered through the bad weather and found the monastery. Now the boy would be able to live a long natural life.



Seizures Then and Now

If a person who lived 200 years ago was treated for a **seizure** today, they would be surprised by the treatment's **novelty**. That's because doctors in the 1800s were influenced more by **primal** medical beliefs than science.

Rather than thinking the brain caused seizures, people in the 1800s still thought they were the result of strange forces. They **equated** seizures with the work of evil spirits. Others felt that the seizures had a cosmic or **lunar** cause. They believed that the cycles of the moon and **constellations** could make someone have a seizure.

During a **session** to treat a patient who had seizures, doctors would force the patient to **invoke** the grace of the **Almighty**. They thought if the patient did this, then the patient would rid themselves of the evil spirits causing the seizures.

The **advent** of modern **psychiatry** occurred during the 1800s. At that time people who suffered from seizures were placed in **psychiatric** hospitals. They were treated like they were insane. However, none of the **outmoded** treatments worked.

It wasn't until the late 1850s that the causes of seizures were understood. We know today that these causes **pertain** to the brain. Misfired signals from the brain cause a jerking **reflex** in the body. These usually occur when someone is very tired.

Once the causes of seizures were known, **definitive** treatments were developed. Today, treatments range from taking pills to having surgery. Treatment is **personalized** according to the type of seizure the patient has.

Even today, some people are unsure about seizures. Their most common mistake is thinking that a person having a seizure will swallow their tongue. They often shove some **utensil** in the person's mouth. However, this doesn't help. The utensil often blocks the **airway** and prevents the person from **inhaling**. Yet most of the public no longer fear people who have seizures. Instead, they can now help and comfort a person if they have a seizure.



The Greedy Bee

A young bee had passed his **intermediate** level exams. He now knew everything about flowers. He understood how they used **photosynthesis** to make oxygen and which ones produced the best **pollen**. Bees had an important **dependency** on pollen. From the beginning of time, bees' **eternal** task was to gather pollen and make honey with it.

Since he passed his exams, the little bee had earned his **inclusion** in the **swarms** that gathered pollen. He was excited because he was finally allowed to leave the hive. He left with the next swarm and was determined to find the perfect flower. Soon he saw a large, **vibrant** flower full of pollen. He landed on a petal and walked toward the pollen at the flower's center.

Immediately, he began rolling in the pollen, gathering it on his legs and wings. The fine **texture** of the pollen **tickled** when it stuck to his body. It was the best experience the little bee had ever had. He gathered as much as he could.

But when he was flying back home, he realized that all the pollen had an **adverse** effect. He had no control over his flight. The **intermittent** wind **fluctuated** in power. He was blown to and **fro**. One minute he was flying straight, and the next minute the wind had **reversed** his course.

He tried to **dump** some of the pollen, but it acted as an **adhesive**. He couldn't get it off. He became tired and fell to the ground.

"What am I going to do now?" he thought. Just then, his **mentor** landed next to him and began cleaning the excess pollen off the little bee. "You shouldn't have taken so much," his mentor said.

Finally, with the pollen off of him, the bee easily **regained** his strength, and like a **phoenix**, the young bee flew back into the air. When he returned to the hive, he turned to his mentor and said, "I learned an important lesson today. I will never be greedy again."



The Mayor of Sherman

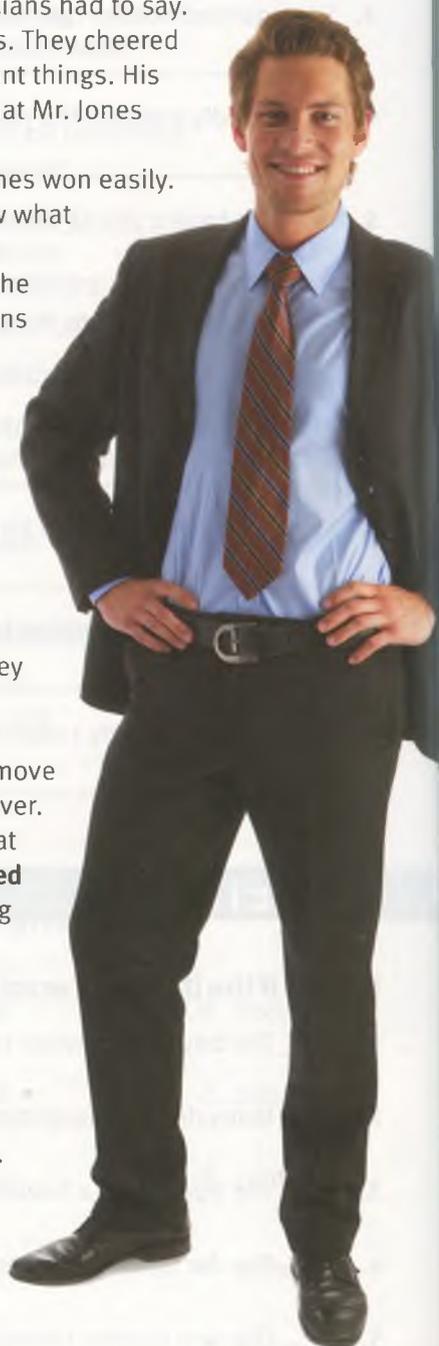
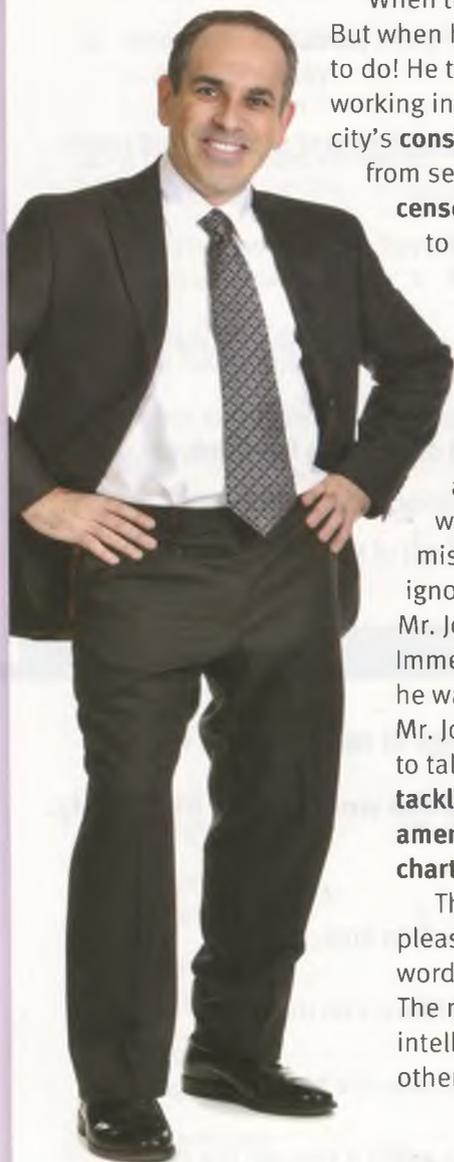
The **cosmopolitan** city of Sherman needed to elect a new mayor. Two men **aspired** to become mayor: Mr. Jones and Mr. Webb. Mr. Jones was a tall, handsome man. He was a **phenomenal** speaker, and the citizens loved him. However, Mr. Jones didn't know much about running a city. He was a **pathological** liar who merely **flattered** people with his words. Mr. Webb was very different. He was a small, unattractive man. He was **lame** and **limped** when he walked. But he was an expert on politics and knew what was best for the people.

The citizens of Sherman didn't care about what the politicians had to say. No one listened to Mr. Webb, even though he had great ideas. They cheered when Mr. Jones spoke, although he didn't talk about important things. His pretty words put people in a **trance**. All the **polls** predicted that Mr. Jones would win the election.

When the votes were totaled, Mr. Jones won easily. But when he took office, he didn't know what to do! He tried to hide his ignorance by working in **secrecy**. He added a law to the city's **constitution** that prevented citizens from seeing the mayor. He even **censored** newspapers that tried to **disseminate** information about his inability to help the people.

Soon, however, Mr. Jones became **infamous** for his poor leadership. There was an **outburst** of anger among the citizens. They were full of **remorse** for their misguided decision to elect an ignorant mayor. They voted to remove Mr. Jones and let Mr. Webb take over. Immediately, Mr. Webb proved that he was a great mayor. He **abolished** Mr. Jones's law, and he was willing to talk openly with everyone. He **tackled** important issues and **amended** unfair laws in the city's **charter**.

The citizens learned that a pleasant appearance and nice words do not make a good leader. The most important qualities are intelligence and a desire to help others.





linguistic [lɪŋgwɪstɪk] *adj.* **lingvistikaga oid, lingvistik...**

If something is **linguistic**, then it is concerned with language.

→ A **linguistic way of studying culture** focuses on words within that culture.

monolingual [mɒnəlɪŋgwəl] *adj.* **bir tilli**

If someone is **monolingual**, then they speak only one language.

→ In today's global economy, being **monolingual** limits your opportunities.

nationality [næʃənæləti] *n.* **millat**

Nationality is an identity based on the nation from which you come.

→ His **nationality** is German, but he speaks French, Spanish, and Korean.

patriot [pəɪtriət] *n.* **vatanparvar**

A **patriot** is someone who loves, supports, and defends their country.

→ Every year young **patriots** join their countries' militaries.

prosecute [prəˈsɛkjʊ:t] *v.* **ayblamoq, qoralamoq**

To **prosecute** someone means to take legal action against them.

→ They were **prosecuted** for fishing in the river without a permit.

racial [reɪʃəl] *adj.* **irqiy**

If something is **racial**, then it is related to a race or races.

→ The differences between **racial groups** are physical characteristics and culture.

solemn [səˈlɛm] *adj.* **sa'mimiy, ochiq**

If something is **solemn**, then it is serious and honest.

→ The professor preferred a **solemn** relationship between him and his students.

solidarity [səˈlɪdəreɪti] *n.* **birdamlik**

Solidarity is a union formed from common responsibilities or interests.

→ All the citizens came together in a show of **solidarity** to create change.

tact [tækt] *n.* **andisha**

Tact is the ability to avoid offending people when dealing with problems.

→ Since both sides would not agree, it required someone with **tact** to make peace.

undermine [ˌʌndərˈmaɪn] *v.* **zaiflashtirmoq, kuchsizlantirmoq**

To **undermine** someone means to betray or weaken their efforts or authority.

→ The documents helped to **undermine** the workers' trust in their bosses' honesty.

The Editor's Choice

A newspaper editor sat at his desk and stared at the flashing cursor on his computer's screen. He didn't know if he should **delete** the article he had just written or go ahead and publish it. He was scared and filled with doubt.

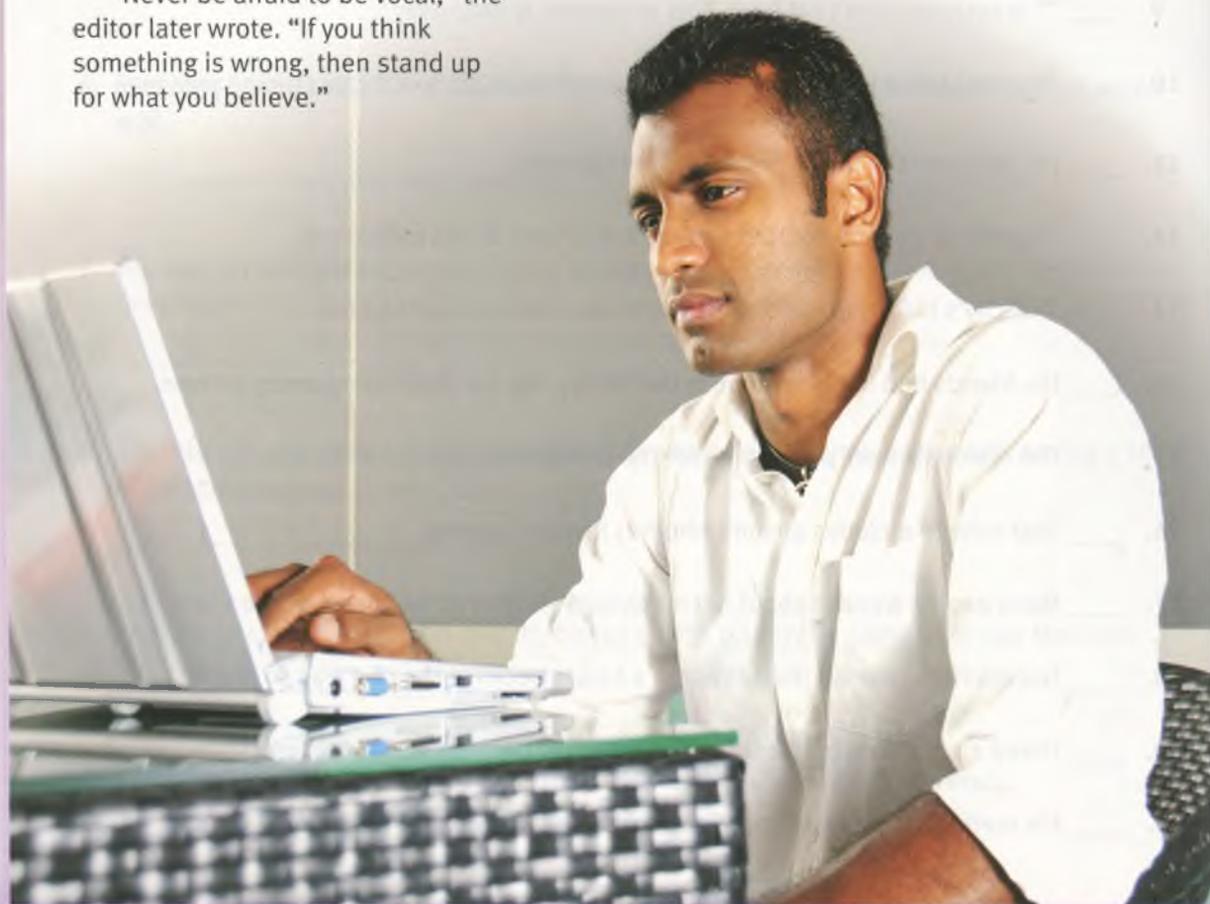
The empire had passed a new law stating that citizens could only use the **imperial** language. The editor disagreed with the law and decided to write an article about why it was wrong. He felt that the new law **excluded** people of different **nationalities** and **racial** and **ethnic** backgrounds. He had **firsthand** knowledge of what it feels like not to be **fluent** in the imperial language because he was from a remote part of the empire.

He felt that the empire shouldn't be **monolingual** and should be more **inclusive**. Yet he was afraid that he would get in trouble for having this belief. Many would say that he was not a **patriot**—that he didn't love the empire. But he didn't wish to **undermine** the authority of the empire. He wanted to argue that the empire could be stronger if it accepted people of various cultures and beliefs.

At last, he decided to stop being a **coward** and to be **earnest** about how he felt. He wrote the article. It wasn't rude or angry, but rather, very **solemn** and intelligent. The next day it was published in all the papers.

Everyone was impressed by his **tact** and showed **solidarity** with his ideas. He expected to be arrested any day, but the police never came. Surprisingly, instead of being **prosecuted**, he became a hero. The **legislature** changed the law, and people from many **linguistic** backgrounds praised him.

"Never be afraid to be vocal," the editor later wrote. "If you think something is wrong, then stand up for what you believe."



The Ice House

Last year, Erik constructed one of the world's strangest houses in the **glacial** landscape of northern Sweden. He called it the Ice House: a house made entirely of ice and snow. All of the beds, chairs, tables, and walls are cold, hard sculptures of ice.

A group of architects and volunteers from all over the world traveled to the site of the Ice House and began its construction. The **multicultural** group journeyed through **blizzards** and **frigid** temperatures to reach the site. Once the builders arrived, there was an **interchange** of ideas, and tools were **allocated** to each worker. An expert was selected to **oversee** the building process to make sure there was no **discord** between the workers. Once a plan was **generated**, they got right to work. The design was very unique; the builders couldn't **replicate** the design from normal houses.

The first step was to build the walls and ceiling. The builders used a metal frame to help them build the structure. After the ice was in place, the frame was removed. The builders then created furniture and art pieces. Designs were carved into each piece. One worker carved **big wavy** lines, and another made **tiny clockwise, concentric** circles. Finally, the workers carved small **cavities** in the roof and inserted colored lights. When the work was finished, the beautiful house was ready for a resident to enjoy.

Living in the Ice House is an experience like no other. Erik stores his belongings in an ice **locker** and lays out a sleeping bag on his ice bed. At dinner, he dines on a delicious salad with **crisp** toppings. And for the main course, he enjoys **appetizing** fish caught from a nearby river. The fish are **pierced** with icicles and served on ice plates. After dinner, he gets ready for a cold night. The **omission** of heaters can be too much for his visitors sometimes. Luckily, there are warm rooms nearby, as a **courtesy** to people who get too cold.



Preparing of the Future

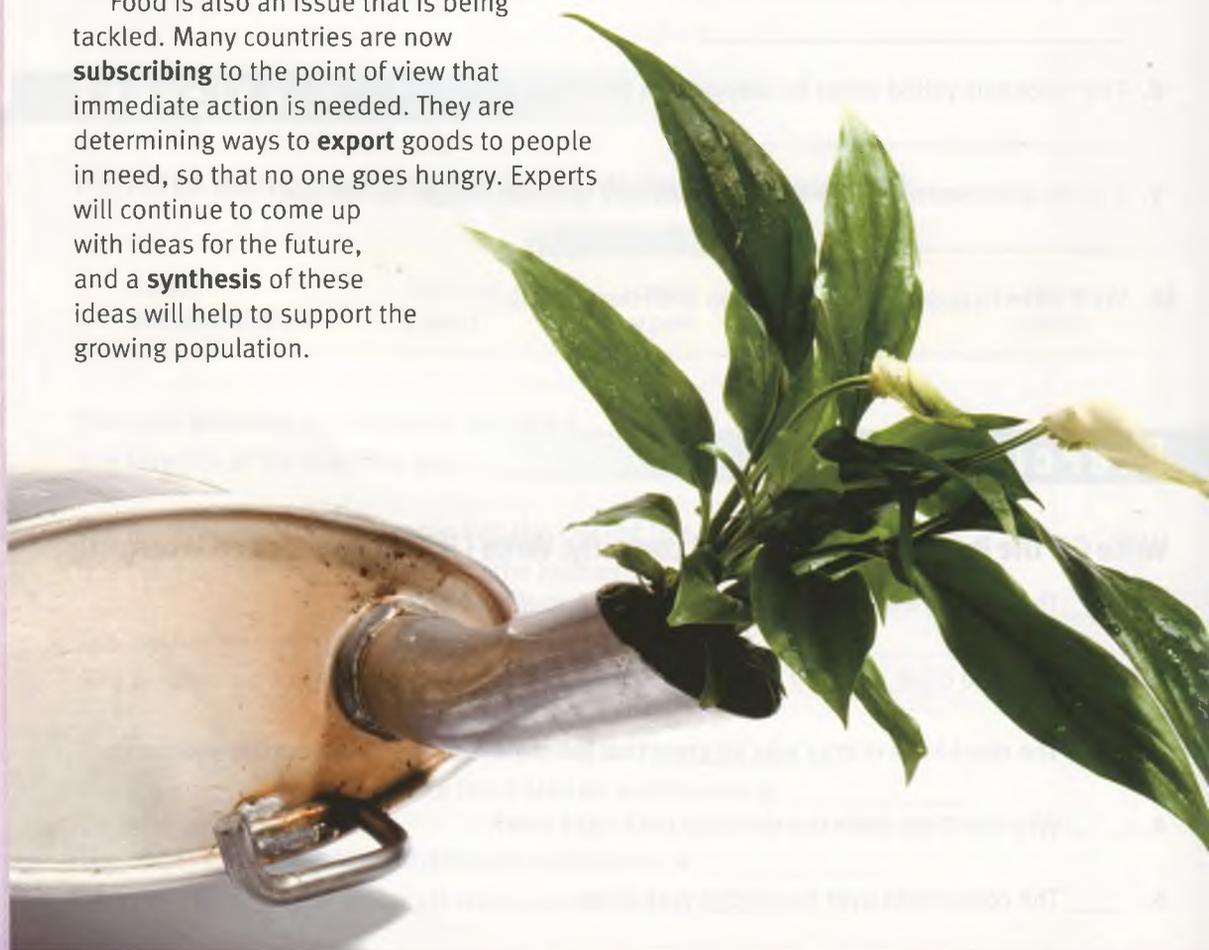
Overpopulation is a big problem in the world today. Too many people are **crammed** into cities and towns around the globe. Earth's population is about 6.5 billion people. This number is growing every day. In just 50 years, the population will be almost 9 billion.

Many people worry that the Earth won't have enough resources to support so many people. One major reason for this is that wasting resources and polluting have become **habitual** behaviors. Industrial **output** results in polluting the air with dangerous **fumes**. Also, cars and machines waste a ton of important natural resources like oil and water. It's possible that the Earth may become so damaged that it cannot support a large population of humans.

Another issue is the lack of useful land for cultivating crops. Even today, many people **subsist** on mere **scraps** of food and little water. In 50 years, many experts worry that huge numbers of people will starve to death. So what is being done to prepare for the future?

People are realizing they can no longer **justify** their wasteful behavior or **defer** action to fix it. Many car companies already have **patents** on **prototypes** for very efficient cars. Such cars waste no resources and produce no pollution. A **conversion** to clean cars means that **petroleum** can be saved for the future. In addition, the environmental **sectors** of many governments are setting strict rules for industries that pollute too much. If companies do not **abide** by the standards, they are **penalized** with higher taxes. In some cases, their operations might be **suspended** altogether.

Food is also an issue that is being tackled. Many countries are now **subscribing** to the point of view that immediate action is needed. They are determining ways to **export** goods to people in need, so that no one goes hungry. Experts will continue to come up with ideas for the future, and a **synthesis** of these ideas will help to support the growing population.



Hundred Plays

Over two thousand years ago, Chinese farmers had a problem. Even though they were very **industrious**, the weather became too cold outside to plant their **staple** food, rice. So what did they do? Since they had so much free time during the long, cold winters, the **inventive** farmers started performing tricks to entertain themselves. They used their farm tools and anything they could find to make their tricks more spectacular. They even twisted their bodies into crazy shapes and performed awesome jumps. Over time, they became great **acrobats**, and their art form came to be known as “Hundred Plays.”

Hundred Plays involves doing many kinds of tricks. For example, in **Mandarin**-speaking parts of China, performers do the lion dance. They wear costumes and **mimic** the animal’s movements. Early performers also did tricks on ropes and **vines** that were high above the ground.

Even though the acrobats’ **fluid** movements may have looked easy, they took a lot of work.

Learning Hundred Plays is a **communal** event. A **veteran** of the acrobatic arts usually teaches younger people in the village. They spend a lot of time **rehearsing**. The young performers also learn an old philosophy. The teachings help them **harmonize** the **sensory** aspects of acrobatics with mental aspects. In other words, it teaches them to use their physical and mental strength together.

Since the art has its origins with poor farmers, rich people used to **scorn** acrobats. They thought acrobats were **villains**. The rich people thought the acrobats just wanted to trick them. But later, their **misguided** opinions changed. Acrobats came to be respected in Chinese society. They were invited to perform in **metropolitan** areas as well as in small villages. They performed for important people, including **judicial** officers. Arts **advocacy** groups convinced the government to support Chinese acrobatics. As a result, there is now a **statute** that made several villages the center of training future acrobats.



The Kidnapping

Anne was a very quiet girl who had an **inherent** fear of almost everything. The kids at school would play tricks on her all the time. They would hide behind the door of the school **janitor's** closet, then jump out to scare her. Once, a boy dressed up like a **vampire** and chased her down the street. Anne hated being **constrained** by her fears, but she didn't know how to be brave.

She was walking home from school one day when someone came up behind her. Before she could turn around, a powerful man grabbed her. She couldn't scream because a huge hand was put over her mouth. Anne knew that this could not be another **stunt** by her classmates. The scary man **restrained** her arms and legs and carried her to his house. He tied Anne to a chair. Her **guts** began to hurt because she was so scared.

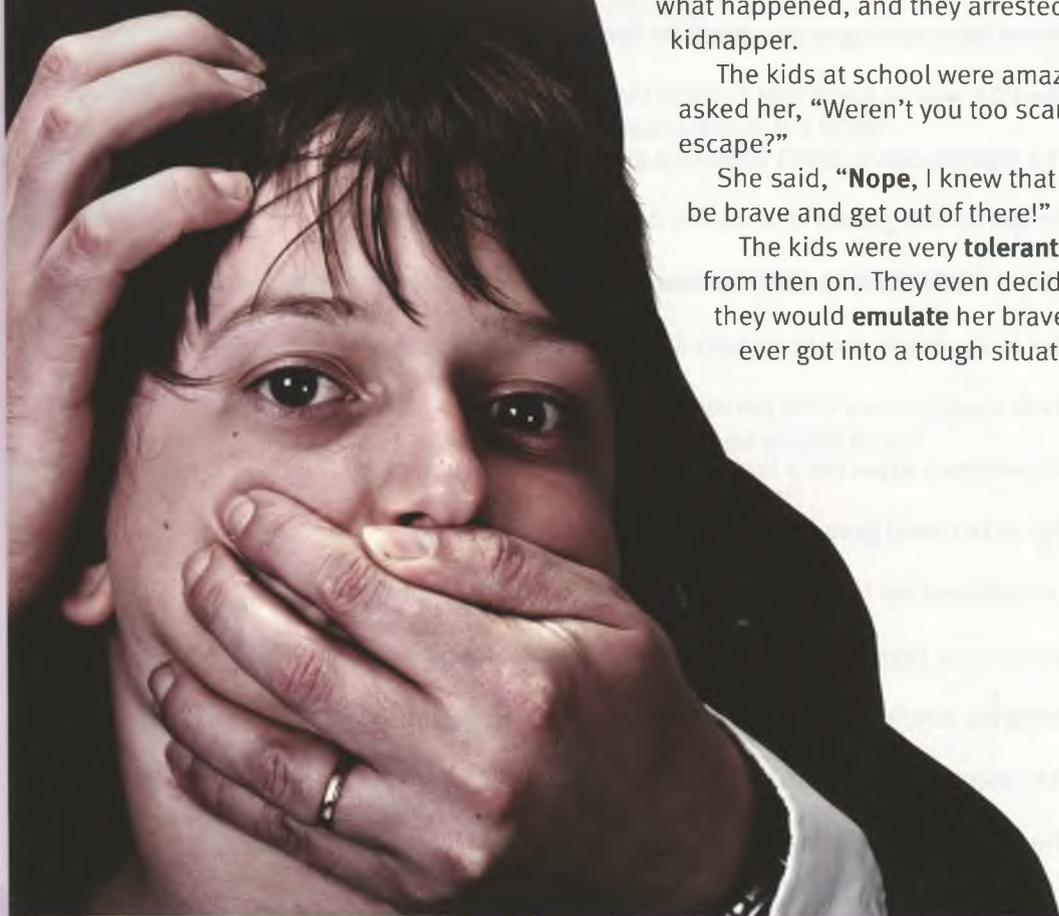
The man **prodded** Anne with his **forefinger** and said, "You'll stay right here until I get a **ransom** from your parents. Then I'll be rich!" The dirty man **spit** when he talked. A string of **saliva** hung from his **moist** lips. Anne was terrified and **intimidated** by the horrible man. But she knew she had to escape somehow.

Eventually, the man **yawned**. Anne waited quietly until he fell asleep. As he slept, she carefully wiggled her arms and legs until the ropes became loose. She slipped out of the ropes and carefully opened the door. She **sprinted** to the bus **depot** and boarded a bus to the police station. She told the police what happened, and they arrested the kidnapper.

The kids at school were amazed. They asked her, "Weren't you too scared to escape?"

She said, "**Nope**, I knew that I had to be brave and get out of there!"

The kids were very **tolerant** of Anne from then on. They even decided that they would **emulate** her bravery if they ever got into a tough situation.



The Earl of Shining

In the village of Hampton, there was an old soldier named Michael, but he was known to the world as the **Earl** of Shining. Michael was once an expert **archer** and a great fighter. In fact, his skills seemed to be **hereditary**; all the people in his **ancestry** were famous warriors. However, he was getting old and no longer wished to fight.

One day, he was in the forest hunting **prey** when he saw a beautiful **prophet** singing a **hymn**. She said, "Michael, an evil army is involved in a **conspiracy** to take over Hampton. You're the only one who can defeat them and stop the **tyranny**. The village needs you!"

Michael replied, "But I'm too old to fight! I'm not confident that I can do it."

The prophet said, "You must try. I will even make a potion to increase your strength."

The prophet took out a bottle and a **funnel**. She poured some **vinegar** and garlic into the bottle. Next, she added some **seasoning** and **sodium** and shook it up.

Michael smelled the potion. "Wow, this is **fragrant**," he said in a **sarcastic** tone. He **inverted** the bottle and drank the whole potion. He immediately felt stronger. "I'll try my best," he promised.

Michael rode his horse to a hilltop, where he could see the village of Hampton below. He saw the evil **tyrant** and his men marching in a **procession** through the town.

Michael charged down the hill and into the village. An enemy **deputy** officer shouted, "He looks as strong as an ox!" It was an apt **analogy**. Michael grabbed the officer and threw him across the street with one arm. The rest of the officers screamed and rode away, and their army followed.

The prophet reappeared. Michael said, "It's a good thing you gave me the potion."

She replied, "But Michael, the potion was fake! Your strength really came from having confidence!"

Michael realized he really was still great. He just needed to believe in himself.



The Lord and the Farmers

A wealthy lord was **renovating** his **mansion**. He had added another story to his home with large windows that overlooked the farmers' **pastures** on the eastern border of his land. Around the mansion, he then **erected** a great wall. He built an **arch** for the gate out of huge **slabs** of stone. The lord was **overjoyed** with the addition to his home.

However, one day while he was sitting on the **terrace**, some farmers knocked at his door. He invited them in. Despite his **hospitality**, the farmers appeared to be in a **foul** mood.

"Why are you so upset?" the lord asked.

One farmer replied, "That is actually the reason for our visit." He then handed the lord a **petition**. It **alleged** that the shadow cast by the mansion was harming their pastures. "Your mansion now casts a shadow over several **hectares** of our land," the farmer explained. "The **turf** in the shadow has died, and our cattle now have less grass to eat."

"It is too late for me to **revise** my plans," the lord answered. "You will just have to live with the change."

His reply only **heightened** the farmers' anger. They left, but they **assembled** that night outside the mansion's gate. They planned to destroy the mansion. The lord's servants tried to defend the house, but the farmers **outnumbered** them.

The servants fled, and the farmers rushed into the mansion and set it on fire. Everyone got out of the house, and there were no **casualties**. However, the fire soon spread from the house to the **adjoining** pastures that belonged to the farmers.

Both sides' properties were destroyed. The lord and the farmers were sorry for their actions. The lord promised to pay for the burned pastures, and the farmers promised to rebuild the mansion. They had learned that when you fight, both sides lose.



The Shortcut

A truck driver was driving cargo from the **outback** to the coast. His load was **comprised** of many types of **ore**. He needed a huge truck to carry its **bulk** to a ship waiting at a **pier** on the country's eastern coast. At the border between two counties, he'd have to pay a **tariff** on the cargo. However, he could keep his money if he avoided the station at the border. He worried about getting in trouble for not paying the tariff, but the thought of extra money **outweighed** this concern.

He took out his road map. To his surprise, it **depicted** a small road that had a **dual** advantage. It not only avoided the border station but also was a shorter route to the coast. He decided to take the **shortcut**.

However, along his journey, he soon ran into problems. First, he had to cross a small wooden bridge. His truck weighed too much for the bridge. It was **analogous** to an elephant trying to stand on a tree branch. The bridge started to break as the truck crossed, and the trailer **tilted** to the right. Fortunately, the truck made it safely across, but most of the ore fell into the river below.

Next, it was a very hot day. The **thermometer** read over 100 degrees **Fahrenheit**. The truck's engine became too hot, so the driver parked it in the shade of a **grove** of trees until it cooled down.

Later, he took a wrong turn. He stopped and took out his **binoculars**. He scanned his surroundings and eventually discovered a landmark that led him back to the proper route.

Finally, he arrived at the pier, but the ship wasn't there. When he asked about the ship's **whereabouts**, a man said that it had left thirty minutes ago. He had not **fulfilled** his duty. He realized then the **paradox** of the shortcut. The shortest route can be the longest, and **vice versa**, a long route may be the fastest.



The Mad Hatter

One morning, Lucas sat outside with his grandfather. They looked past the **gravel** road that led to a natural **reservoir** on the **delta**. On the other side of the water, there was a cottage.

“Does a ghost live there?” Lucas asked.

“No, a mad hatter lives there,” said his grandfather. Lucas didn’t know what a mad hatter was, but the image of a scary man **haunted** him.

Later, Lucas went for a walk in the forest. He collected pieces of **amber** and **granite** that he found on the ground. He looked at the **moss** on the trees and watched a bird **peck** at the ground. But the forest was like a **maze**. Soon, Lucas was lost.

Lucas heard somebody behind him. He wanted to run away, but he fell. He had a **streak** of blood on his shirt and some **pebbles** stuck in his skin. Then a man appeared.

“I will take you home. First, let’s get you cleaned up,” he said.

Lucas followed him. When they arrived at the cottage, he realized the man was the mad hatter!

He sat down inside. It smelled like **charcoal**, but it looked like a normal house. The man brought Lucas back some medicine.

“It’s a bit old, but it’s not **expired**,” the man said.

While Lucas cleaned his cut, the man washed the blood out of his shirt with **detergent**.

Lucas asked, “Are you a mad hatter?”

The man laughed and replied, “That’s a **euphemism** for a crazy person. Actually, I’m pretty normal. I’m a **columnist** for a newspaper,” said the man. He pointed to his **credentials** which hung on the wall.

Lucas could hear the **crickets** outside. It was getting dark, so he asked, “Could you take me home now?”

The man said yes. Lucas was surprised that people thought the man was crazy. He was actually very **courteous**. Maybe Lucas should have a more **liberal** attitude. Next time, Lucas wouldn’t make judgments about people without getting to know them first.

