LINDA HOYT

ANTHOLOGY OF MAGAZINE ARTICLES AND STUDENT WRITING

CONVENTIONS and Craft

GRADE 5

SCHOLASTIC

Dedication

Special thanks to members of the Scholastic Magazine Group for their contributions. We are grateful to Laine Falk, Patricia Janes, Kristin Lewis, Amanda Miller, Blair Rainsford, Elliott Rebhun, Stephanie Smith, and Lauren Tarshis.

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Publisher: Lois Bridges
Development editor: Raymond Coutu
Production editor: Shelley Griffin
Editorial director: Sarah Longhi
Editorial assistant manager: Suzanne Akceylan
Cover designer: Eliza Cerdeiros
Interior designer: Sarah Morrow

ISBN-13: 978-1-338-13449-0

1 2 3 4 5 6 7 8 9 10 14 26 25 24 23 22 21 20 19 18 17

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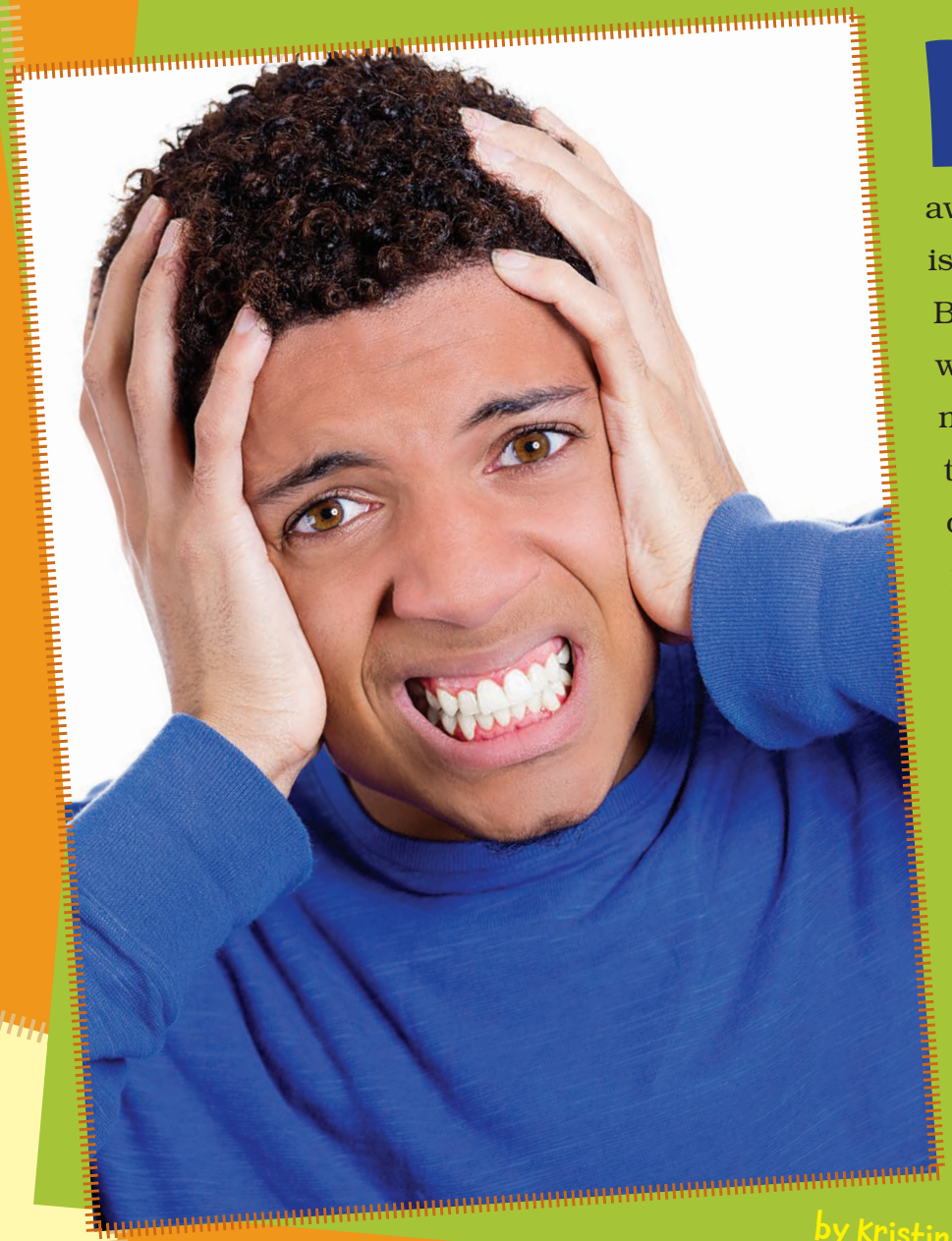
STUDENT WRITING

For digital versions of these magazine articles and student-written pieces, go to scholastic.com/CCresources.

Is This You?

Stress and anxiety among children and teens is off the charts. Here's what you can do about it.



It's 1:00 a.m. and you're supposed to be asleep. But instead you're wide awake, and your mind is swirling with worries. Baseball tryouts are next week, and you *have* to make the travel team. State tests are coming up—days of brain-rattling math problems and impossible writing prompts. And what's with your best friend, who didn't like your last two Instagram posts? You squeeze your eyes shut. *Sleep! Sleep!* But oh, no. Now you remember that you have a vocabulary test tomorrow. AAAHHHHH!

by Kristin Lewis with Carolyn Gregoire

Hopefully, this isn't you. But you can probably relate. Today's kids are under pressure to excel in school, keep up in sports, manage friends and family—to perform, connect, and succeed like never before. The stress can be overwhelming. According to a survey by the American Psychological Association, one in three kids experiences stress symptoms like sleeplessness, headaches, and stomach pains.

What is going on?

The Science of Stress

Stress is the feeling of anger, frustration, or anxiety we feel when faced with situations that overwhelm us. We all feel stress from time to time. Stress is the pounding of your heart when you step onto the pitcher's mound, the butterflies swarming in your stomach when you take a big test, the sleepless night before an audition for the school play.

Feeling stress is part of the human experience. In fact, it's key to the very survival of the human race.

For our early ancestors, who lived in caves and were stalked by saber-toothed tigers and spear-wielding enemies, the ability to respond quickly to threats was the difference between life and death. And so the brain is wired to trigger a response at the first sign of danger. The heart races, increasing blood flow to the muscles. The pupils dilate to let in as much light as possible. The body becomes less sensitive to pain, and hormones that increase alertness flood the bloodstream. This may sound like a scene from *The Hulk*, but it's just part of human biology, a reaction known as "fight or flight."

Solution

Trouble concentrating on homework after a fight with your mom? Strong emotions can throw you off. Find an outlet for your feelings, whether it's shooting hoops or writing in your diary.

Even though those saber-tooths are long extinct, our brains are still programmed to react quickly to danger. This can be helpful in emergencies. The trouble, according to experts, is that many kids today feel such extreme pressure in their busy lives that their stress response mechanism gets stuck in the "on" position—and that is anything *but* helpful. Feeling constantly stressed takes a toll on your mind and body. Doctors have linked chronic stress to a number of health problems, from a weakened immune system and depression to heart disease, high blood pressure, and obesity.

Yesterday and Today

It might seem puzzling that stress is such a problem for kids today, given that in so many ways, life is much easier now than it was in the past. One hundred and fifty years ago, one in three kids didn't live past the age of 10. Those who weren't struck down by diseases like polio or measles were often felled by contaminated water, spoiled milk, or poor nutrition. In cities, life tended to be grim, particularly for the poor; children often had to work to help support their families. Out on the frontier, killer storms and wild animals posed constant threats. Kids spent their days helping on the farm, and it was a privilege to attend school past eighth grade.

Life in America today is far safer. Vaccines spare us from many deadly diseases. Every kid is guaranteed the right to go to school through 12th grade. And there are programs to help the needy pay for at least some food and other basic necessities.

So if we have a lot less to worry about than previous generations did, why do we seem *more* stressed?

Some of the troubles today's kids face are not so different from problems of the past. Millions must cope with the stresses of poverty, family problems, and dangers in their neighborhoods. Other

Solution

When you're nervous, negative thoughts flood your mind. Before a big test, say positive things to yourself. Remember that you're ready, that you can do it.

pressures are unique to the 21st century. Academic pressure is more intense than ever before, with competition for college growing fiercer each year. Schedules are so packed with after-school activities and jobs that there is often little time to relax with friends and family. Technology allows kids to be "on" 24/7, sharing, posting, and tweeting with legions of people. And yet many kids lack time to cultivate the kinds of deep friendships that are truly nourishing.

What's more, the news is filled with stories lamenting the fact that American students have fallen behind their peers in other countries academically, and that the United States is losing its competitiveness—that we are no longer global leaders in science and technology. "Then we have the huge uncertainty of our times," says Dr. Cynthia Ackrill from the American Institute of Stress. "Kids are worried about the environment and about getting jobs."

It's all too much!

How to Cope

But hold on. Sit back and take a deep breath. Yes, life can be stressful. But the good news is that there are easy ways to reduce stress. And no, you don't have to quit the team or throw your phone in a lake.

To begin, accept that some stress is normal, even healthy. Stress makes us alert—and we perform better when we are alert. When it comes to extreme stress, though, there are tools anyone can use to calm down. Take LeBron James, who has been a basketball star since his early teens. James knows that some anxiety before a game is useful. It invigorates him, sharpens his focus. But too much stress is overwhelming, so years ago, he turned to meditation. He meditates before games and sometimes on the bench between plays.

Solution

When we're stressed, we take shallow breaths from our chests rather than deep breaths from our bellies. Try this: lie down, close your eyes, put your hands on your stomach, and make sure your belly rises as you take 10 deep breaths. Better, right?

Meditation is just one of many stress-reduction tools. A good night's sleep is another. Exercise is especially effective: It triggers the release of stress-reducing hormones called endorphins. It's also important to get some face-to-face time with friends and family. Humans are social beings. We need each other to put things into perspective (getting a B isn't the end of the world!) and remind us that we are loved. Another great way to cope is to find an activity you enjoy, something you do for no reason other than the simple pleasure of it. Maybe it's reading in the park. Or singing. Or drawing. Make time for this activity. It will rejuvenate you.

What doesn't work? Procrastination. Binge-watching reruns of *The Big Bang Theory* or spending hours playing *FIFA 14* will, in the end, only make you feel more overwhelmed.

Remember to try these simple strategies. With them, you will likely go to sleep thinking, "Oh, yes! I've got this." And you might be surprised at how much easier it is to cope with whatever life throws your way next.

THE DAY THE SKY SPLIT OPEN

The Super Tornado Outbreak of 1974

IN JUST OVER 15 HOURS, 148 TORNADOES DESTROYED TOWNS IN 13 STATES. IT WAS ONE OF THE MOST DISASTROUS DAYS IN U.S. HISTORY.

BY LAUREN TARSHIS

On April 3, 1974, the strongest tornado ever recorded in U.S. history hit the town of Xenia, Ohio. It was so big—half a mile across—that people on the ground didn't even know it was a tornado. The entire sky, it seemed, had turned into a great swirling blackness.

In just nine minutes, the tornado destroyed more than half the town. One neighborhood, known as Arrowhead, was flattened, dozens of tidy brick

homes erased from Earth. Shops, schools, and churches were smashed. The bowling alley was wrecked when two trucks, carried by the wind for 100 yards, landed on its roof. In the end, 33 people in Xenia were killed. More than 1,000 were injured. "We should all be dead," wrote the editor of the town's newspaper.

In the hours after the tornado hit, few in Xenia knew their suffering was just one small part of a far bigger disaster. In approximately 15 hours, 148 tornadoes touched down in 13 states—all were part of the same massive weather system.

In Brandenburg, Kentucky, a tornado flattened three-quarters of the buildings and killed 31 people. Farther west in Fountaintown, Indiana, a tornado lifted a metal warehouse and carried it a mile away. In Jasper, Alabama, firefighters escaped from their station house just seconds before the building and all the fire trucks were destroyed. All along the storm's path

The Super Outbreak hit 13 states.

were similar scenes—stunned survivors standing in rubble. By the time the skies cleared, more than 315 people were dead and over 5,000 were injured.

OUT OF THE RUINS

Forecasters working that April day knew that dangerous weather was simmering over the central U.S. Cold air was sweeping down from the Canadian Rockies. A mass of warm, wet air was blowing northward from the Gulf of Mexico. These weather fronts would collide. And when they did, the perfect conditions for a violent type of thunderstorm would occur. These storms are known as supercells. They are dangerous on their own—with driving rain, booming thunder, lightning, and hailstones. They are also the kind of storms that produce the most severe tornadoes.

But there were no tornado warnings in advance of the Super Outbreak. On April 3, the Xenia newspaper ran its daily weather forecast in its usual spot on page one. The National Weather Service had issued a "severe storm watch" from noon until 3:00 p.m. that day. "Severe thunderstorms with damaging winds" were predicted. There was no mention of tornadoes until the funnel cloud actually appeared in the sky. But by then it was too late for most to escape to safety. As one Xenian survivor said, "All we could do was close our eyes and pray."

The reason why there was no advance warning is simple: Tornadoes were not well understood in 1974. The radar that weather forecasters used four decades ago could not detect tornadoes before they came down from the sky.

More than 1,000 tornadoes strike the U.S. every year.

MR. TORNADO

After the Super Outbreak, scientists became determined to develop better ways of predicting tornadoes. Leading the effort was a professor of meteorology named T. Theodore Fujita. Dr. Fujita was already well known among weather scientists. He had even earned the nickname "Mr. Tornado." In 1971, Dr.

Fujita developed the Fujita Tornado Scale. This system rated tornadoes on a scale of zero through five, according to how much damage they caused. An F-0 tornado, the weakest, might snap branches off small trees. An F-5, the strongest, can wipe out an entire town.

Before Fujita's scale, scientists rated tornadoes by size, even though small tornadoes could be more intense than larger ones. Fujita's system was more useful and far more accurate.

Fujita did a complete study of all the damage the Super Outbreak caused. Flying low in a small plane, he surveyed the path of destruction over and over. He examined photographs and interviewed survivors. Fujita had a special talent for "reading" a disaster area—finding the patterns of fallen trees, the scruff left in a cornfield, the spray of wood from a flattened house. Using these patterns, Fujita created detailed pictures of all 148 tornadoes. He determined that the Xenia tornado had winds far stronger than anything ever recorded—more than 300 miles per hour. (The destructive winds of Hurricane Katrina in 2005, by contrast, reached 140 mph.) He proved that tornadoes could occur almost anywhere; one had even climbed up a Kentucky mountain. The most shocking thing he discovered was that some tornadoes actually have more than one "suction vortex." This means that some tornadoes are actually two or three tornadoes packed into one swirling cloud.

Thanks to the effort Fujita led, the U.S. government has improved the system for tracking dangerous storms. Today, meteorologists in more than 120 national weather stations monitor storms as they develop. They use a system called Doppler radar, which helps forecasters predict tornadoes with an 80 percent success rate. In the 1970s, people often had less than one minute to prepare for a tornado. Now, the average "lead time" between the warning and impact is 12 to 14 minutes. For many, that is the difference between finding shelter or not—between life and death.

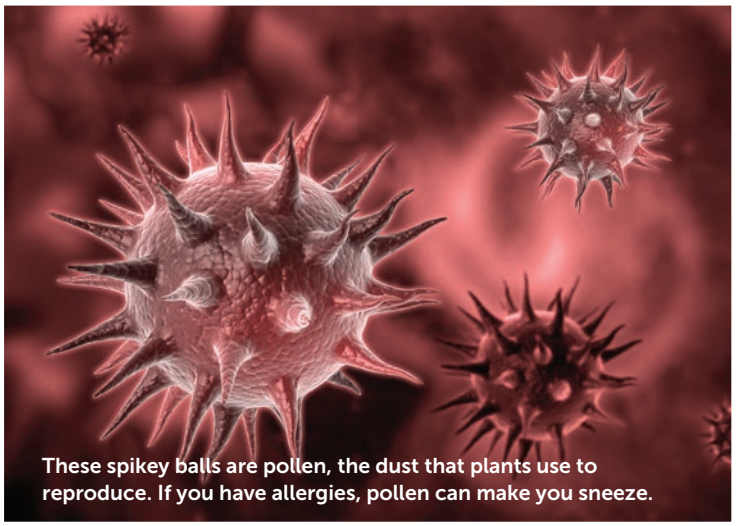
Vicki Gamble was just four years old when the tornado hit her Arrowhead neighborhood in Xenia. Decades later, she remembers every second of that day—riding her tricycle in her driveway, how kids were laughing in the street. "It was a picture-perfect day," she recalls, until neighbors began running down the street screaming, "Tornado! Tornado!" Her father gathered Vicki, her mother, and brother into a hallway and put a mattress over them. After checking on a neighbor, he crawled under the mattress with his family, laying his body on top of them. There was a moment of eerie quiet. And then, "a rush of horrifying winds seemed to be tearing our roof off." When the family finally crawled out of their hiding place, their house was still standing. But the neighborhood outside their window was gone.

"A tornado devastated my town that afternoon," she wrote 32 years later. "It became a day that I have not forgotten."

A massive tornado blackens the sky above Xenia, Ohio.

RUSH OF HORRIFYING WINDS

Every year, an average of 1,000 tornadoes strike the United States. The middle of the country—the Dakotas, Nebraska, Kansas, Oklahoma, Western Texas, and Eastern Colorado—is the most tornado-prone area. It's nicknamed "Tornado Alley." Few experts think another Super Outbreak will happen during this century. But for those who survived, memories echo like those thundering winds.



These spikey balls are pollen, the dust that plants use to reproduce. If you have allergies, pollen can make you sneeze.

DIRT

This pile of dust may help you stay healthy!

by Faith Hickman Brynie

If you're allergic to animals, your body reacts to these flakes of hair called *dander*.

Dust mites live in dust. They eat tiny flakes of skin. This one is magnified more than 1,000 times.

This is what dust looks like when magnified hundreds of times. To show the mold, fungus, and fabric fibers in dust, color was added to the image.

"Did you get dirty today?" In the future, your mom, your dad, even your doctor, may ask that question! It sounds wacky, but some scientists think dirt and dust might make kids stronger. They're investigating whether dirt acts like medicine to protect you against illness, such as allergies and asthma.

Invader Germ

To understand how dirt may help you, it is good to know how your body fights germs. Your immune system is the army that defends your body against viruses, bacteria, and other microbes that can make you sick. Here's how it works.

Alert! Alert! You've just played basketball in the gym and have picked up plenty of new germs and viruses. Germs are tiny living organisms that cause disease. Viruses are particles that can only live by invading, or infecting, a living cell. When your best friend sneezed all over you (yuck!), he sprayed you with viruses. At least 20 kids touched the ball, covering it with bacteria from their hands. When you touch the ball, and then your eye, bacteria get a free ride into your body.

The viruses latch onto cells in your throat, inject their DNA, and make those cells into virus factories. Within hours, the infected cells burst open and thousands of brand-new viruses flood your throat. Meanwhile, bacteria are dividing and reproducing in your eye.

The Fight Begins

But already your body is starting to fight back. An army of white blood cells called leukocytes (LOO-ko-sites) is always swirling in your bloodstream. Pac-Man types called phagocytes (FAG-o-sites) gobble up invaders. Granulocytes (GRAN-you-lo-sites) attach infection-fighting chemicals to bacteria and viruses. Other white blood cells called killer T cells find and destroy cells infected with viruses.

Instant Messages

Helper T cells are also important, but they don't kill invaders: Instead, they send messages to other cells. After the basketball game, the message is, "Invading viruses and bacteria!" B cells show up and create molecules called antibodies. They are specially shaped to lock onto specific viruses and germs and destroy them. Helper T's could send another message, "Invading parasite or worm!" In that case, special IGE antibodies produce histamine (HIST-a-meen), a chemical that floods the infected area with mucus. The slimy mucus would wash a parasite from your stomach walls.

Oops! Wrong Response

But sometimes, a human body makes a mistake. Say that, instead of picking up germs in the gym, you hug your friend's cat or dog and some flakes of pet hair and skin float into your nose and eyes. Or you walk under a tree and get covered in pollen. Or you crawl under your bed and get microscopic bugs called dust mites in your nose.

Helper T cells should do nothing—after all, pet hair, pollen, and dust mites are not germs. But if you have allergies, the helper T cells sense the hair or pollen and send a message to the IGE antibodies. Histamine floods your nose and eyes and soon your eyes itch, your throat swells, your nose runs. Mucus clogs breathing tubes. You sneeze, cough, weep, and drip. This is an allergic reaction.

Asthma is different from allergies—although allergies can trigger asthma attacks in some people. Asthma is a tightening of the muscles around the tubes that carry air in and out of the lungs. The tightening makes breathing—especially breathing out—difficult.

The Dirt Defense

But why would your helper T cells make such a mistake? Scientists still aren't sure, but they've observed a pattern. Children who live in cities and suburbs have more allergies than those who grow up on farms, around animals and dirt. Kids who go to daycare or who live in big families—and catch more colds at a young age—have fewer allergies and asthma

Dust mites in pillow fibers

than children who didn't grow up around a lot of germs.

Some scientists think that the microbes in dirt and dust, and germs from other kids, act like trainers. When you're a baby and toddler, those microbes train your helper T cells to send out the right message. Without this training, helper T's send out mucus-producing IGE cells too often.

Not everyone thinks dirt is so important. Some doctors blame allergies on bottle feeding, antibiotics, too little exercise, or the use of fever medicines. It could be a combination of factors. Still, evidence is mounting that dirt might help the immune system develop.

Too Late?

What can you do? Not much. Your immune system training period was over by the time you started kindergarten. If you have allergies, you should learn what causes your body to react. Your doctor can tell you what to do during an allergic reaction. Your doctor may recommend a medicine containing antihistamine, which blocks the place on your cells where histamines would connect. That stops the production of mucus.

Even if you don't have allergies or asthma, you can help your immune system. Eat lots of fruits and vegetables. Get enough rest. Cover your nose when you sneeze, and for goodness' sake, keep your hands washed!

TEEN HOBOES OF THE 1930s

During one of the most desperate times in America, 250,000 kids left their homes to try to survive on their own.

by Kristin Lewis

In the summer of 1934, 13-year-old Robert Symmonds found himself chasing an enormous freight train. His plan was to hop onto one of the moving cars without getting caught by the railroad police—and without getting sucked onto the tracks, where he would be crushed beneath 3,000 tons of steel. Luckily, the train was moving slowly. He reached out for the ladder on a tank car and, gripping tightly, hoisted himself up. He climbed to the top of the car, where he found a narrow wooden plank to sit on. There wasn't much to hang onto—only a small metal bar. At least he was safe.

But not for long.

The train began to pick up speed. The wind whipped past Robert's face as the train approached 45 miles an hour, then 55, then 65. "The plank started to vibrate like a springboard," Robert remembers. It tossed him in the air, and he struggled to hang on. "All I could think of was that I shouldn't have gotten on the train. If I lose my grip, I'm gonna die. I'm gonna go under the wheels. What will my mother think? She'll get word that her darling son was found mangled along the railroad tracks."

Miraculously, Robert managed to hold on until the train reached its next stop. By then, he was so exhausted he could barely walk. But that didn't stop him from sneaking into a boxcar a few cars back. There was no way he was going to give up that easily.

In the 1930s, more than 250,000 kids like Robert rode freight trains across America. They were known as "boxcar children." Poor and homeless, they hopped from train to train and drifted from town to town. Some sought adventure. Most were looking for work, their families too poor to care for them. No matter where they came from or where they were headed, they all came to understand one brutal truth: Life on the rails was treacherous.

Penniless, Homeless

The 1930s was a period of extreme hardship in the United States. The country had fallen into financial disaster. Banks had failed. Factories had shut down. Farmers couldn't sell their crops. Many families lost their life savings. By 1932, one in four Americans was jobless. Hundreds of thousands of people roamed the country in search of a meal, a place to sleep, and employment. This period became known as the Great Depression. To this day, it remains the longest and most brutal economic depression in American history.

Like so many others, Robert and his family were hit hard. In Errol Lincoln Uys's book *Riding the Rails: Teenagers on the Move During the Great Depression*, Robert shares the story of how he became one of the boxcar kids. His dad had been a successful business owner. The

Homeless boy hanging on a rail, 1930s

family lived in a nice house in Seattle, Washington, and there was always food on the table. Then Robert's father lost everything. Unfortunately, it wasn't long before the family was penniless and homeless. A relative offered them a cabin in Oregon, but life wasn't any better there. There was no running water, no electricity, and no money.

Robert decided it was up to him, the only son, to save his family. He had seen young hoboes riding in the boxcars of trains that passed through town. He had even hopped a few trains himself—just for fun—like that terrifying tanker car he had ridden in 1934. But he had never gone very far from home.

So in 1938, at age 16, Robert hiked to the rail yard. He planned to ride south and get a job harvesting crops—if he could survive the journey.

A Thrilling Adventure

By the 1930s, the boxcar kids had become a national phenomenon. Newspapers wrote about them. Magazine articles offered advice on how to survive as a hobo. There was even a movie made on the subject.

Though the articles usually stressed that a boxcar was no place for a kid to live, teens across America found these tales utterly thrilling. Life on the rails seemed like a fantastic adventure. Many teens imagined stopovers in glamorous big cities and warm summer nights rolling through the wilderness. On a train, they would be free, making their own way in the world. Many kids found the idea so alluring that they ran away to hop trains—even kids who had plenty to eat at home.

A Harsh Reality

Boxcar kids soon discovered that the reality of riding the rails was far grimmer and more dangerous than what they had read about in glossy magazines. Even before a kid stepped onto a train, danger lurked everywhere. The rail yards were patrolled by "bulls," guards paid by the railroad companies. These men could be vicious. They would beat kids before hauling them off to jail. Some even stole what little money the kids had.

The greatest danger was the train itself—thousands of tons of metal speeding along the tracks. Newspapers were full of gruesome stories about kids who were injured or killed while hopping trains. A fall from a boxcar roof could result in a broken arm, a broken leg, or a broken neck. A foot or a leg that slipped beneath a train's wheels was instantly severed. There was also the potential hazard of being sucked under a train and crushed to death. Tragically, from 1929 to 1939, nearly 25,000 train hoppers died. Another 27,000 were injured.

Those who managed to survive the train rides faced hunger and illness. They might go days without food. Weakened by hunger and cold, many became sick with diseases like pneumonia. They would wander into towns, ragged and filthy and sometimes infested with head lice. They would beg for food or try to get short-term jobs in exchange for a few cents or a cup of coffee. But the towns

often had their own suffering to deal with. Many towns simply couldn't cope with more mouths to feed. "Go home to your parents," people would say. After all, if an adult couldn't get work, why should a kid?

Not everyone turned the boxcar kids away. Many people extended charity to young hoboes because they knew how fragile their own security was. During the Depression, anyone could be weeks away from losing a home. Even wealthy people could end up homeless if they lost their jobs. Then they might be the ones hopping trains and begging for food.

A Glimmer of Hope

Eventually, Robert got a job as a farm laborer, just as he had hoped to. Each spring, he would hop trains up and down the West Coast, migrating from farm to farm to work in the fields. It was backbreaking labor. He sent as much money home as he could—and that money, little as it was, would see his family through winter.

Other kids were not as lucky. They drifted from Wyoming to Kansas, from Oklahoma to Ohio, in search of work. Few found enough of it.

There was a glimmer of hope in 1933, when President Franklin Delano Roosevelt created the Civilian Conservation Corps. The purpose of the CCC was to hire unemployed, unmarried men between the ages of 18 and 25 to work in national parks and forests. They would be housed, well fed, and paid $30 a month, with the stipulation that 25 of those dollars be sent home to their needy families. In those days, $25 a month was enough to pay rent and buy groceries for a small family.

The CCC was a success. From 1933 to 1943, it hired 2.5 million young men. They planted trees, fought forest fires, built dams, and cleared campgrounds. In 1939, Robert secured a six-month spot at a CCC camp in Montana. Today, you can still hike the trails that kids like Robert helped to clear.

A New Era

By the 1940s, the era of the boxcar kids was coming to an end. The country's economy was starting to recover. War was brewing in Europe and Japan. Many kids left the rails and the CCC camps to serve in the military. Robert was one of them. He joined the U.S. Navy and fought in World War II. After the war, he got married and raised four children in California.

For the boxcar kids still alive today, the memory of the 1930s is bittersweet. The suffering they endured and the misery they witnessed stole their adolescence. The boxcar kids left home as children and overnight became adults. On the other hand, riding the rails made them self-reliant and deeply compassionate. And of that, they are incredibly proud.

The Civilian Conservation Corps had more than 1,000 camps across the country.

TO IRAQ AND BACK

Back home from a tour of duty in Iraq, a young U.S. Army officer spoke to *Scope* in early 2008 about his experiences overseas.

BY KRISTIN LEWIS

The war in Iraq began in March 2003. Many Americans have strong feelings about how much longer the U.S. should stay there, and the issue has been front and center since then. Beyond the politics and heated feelings about the war, one thing is certain: More than 155,000 U.S. military personnel continue to risk their lives in Iraq.

U.S. Army soldiers work at a checkpoint in Mahmur Village, Kurdistan, Iraq.

U.S. Army First Lieutenant Nathan Neuman, 24, is one of those brave soldiers.

A U.S. soldier helps an Iraqi move his vegetable cart at a local market.

★ ★ ★

LIFE IN IRAQ

Nate, as his friends call him, says that besides the danger, the biggest personal challenge about being in Iraq was "separation from friends and family."

For now, Nate is back home with his loved ones in Buffalo, New York. He joined the Army at age 18, then earned a degree in urban planning and development at the University of Buffalo. In the spring of 2006, after graduation and training, he was sent to Iraq for a one-year tour of duty.

As an officer in the Civil Affairs Unit, Nate helped coordinate the efforts of the Iraqi government, the U.S. military, and private contractors to build or rebuild infrastructure, such as roads, and to provide humanitarian aid. Nate and his fellow officers met with local government leaders to talk about the problems in their communities and to come up with solutions.

Nate lived with 3,000 other American military and Iraqi personnel on a one-square-mile base near the city of Baqubah [buh-KOO-buh] in the Diyala Province. He says life on base is like "being on call 24/7." Some days start as early as 5:00 a.m. with a meeting to discuss the day's missions.

After Nate's unit discovers a need, they submit a funding request to the Iraqi government. If the Iraqis aren't able to pay for it, then the U.S. foots the bill if the project will benefit many people.

Unfortunately, the process can take months, and sometimes a problem is so extreme, people just can't wait that long. For example, if a water treatment plant breaks and people don't have clean water, an entire town will be sick or dying by the time the money arrives. In these situations, U.S. military commanders can use money from a special discretionary fund to make repairs right away.

★ ★ ★

HIDDEN DANGERS

Because of security issues, even the simple task of fixing a power line could take all day and present a

BUFFALO TO BAQUBAH

Baqubah, Iraq, is 7,000 miles from Nate's home in Buffalo, N.Y. Baqubah is the capital of Diyala Province.

A soldier pauses on patrol to offer gum to local children in Iraq.

possible danger. "Anytime you leave the wire [base], it's considered a combat situation, which means you're on full readiness, you're in full protective gear and equipment," Nate says. "You could get blown up during a simple 3-kilometer drive."

Nate is quick to point out that a very small percentage of people in Iraq are "bad guys," and of those, most come from other countries.

"You aren't fighting an organized government or military," he explains. "You're fighting insurgents, who do not wear a uniform and fade into civilian crowds when they don't want to fight anymore."

This kind of warfare is frustrating for both Americans and Iraqis because it doesn't distinguish between the military and civilians.

"You don't know who you're fighting," Nate says. "A guy puts a bomb on the side of the road and hides in a ditch 150 meters away. The bomb goes off, he walks away, and you never knew what hit you. You don't know who to shoot at. All you see are three Iraqi civilians standing nearby, but they're innocent. They're just as scared and shocked as you are, and they're the only Iraqis in sight."

✶ ✶ ✶

COMMON BOND

Nate became friendly with many Iraqis while he was there. In the evenings, he liked spending time in the Iraqi barracks, where Iraqi citizens hired by the U.S. government lived.

According to Nate, life hasn't been easy for the people of Iraq. "They really have suffered for a very long time, starting with the war against Iran in the 1980s, followed by the Persian Gulf war, followed by sanctions and another war and insurgency now. They think they're cursed," he says.

In spite of the differences, Nate found ways to connect with his Iraqi colleagues, especially his interpreter, Ali. Now, they stay in touch by email. "It's amazing how all humanity is the same to an extent—the will to do good, general expressions in body language, subtle emotions," he says. "You have to look for it, but you can have a common bond with anybody."

✶ ✶ ✶

BACK IN BUFFALO

Now that he has settled into his old life in Buffalo, Nate works at the local Army base. He also spends time with his girlfriend, his mother, and his dogs Sabre, named after the Buffalo Sabres ice hockey team, and Bruiser, named after a dog that dragged its wounded owner to safety during the Vietnam War.

Even though Nate was glad to go home to his loved ones, leaving Iraq was bittersweet. "You develop friendships with the people you're trying to help, and it's difficult to walk away."

Will Nate have to go back to Iraq? "We are such a strained military that you have soldiers going back for second and third tours," Nate says. "Everybody goes back."

Thrill Rides!

The excitement you feel when you ride a roller coaster is caused by g-forces.

by Sara Goudarzi

The longest lines at amusement parks are often for the newest, fastest, or tallest roller coasters. But what is it about roller coasters—other than their tight loops, steep slopes and blistering speeds—that give people such a rush?

Experts say it's g-forces—the forces acting on a body as a result of gravity (a force that pulls two objects together).

"The intensity of the ride is usually due to these vertical and lateral g-forces," says Chad Miller, a roller-coaster designer at the Gravity Group, a design firm in Cincinnati, Ohio. "The bigger the forces are, the more intense the ride feels."

When a roller coaster goes downhill, riders feel as though they're being pushed into their seats. When going uphill, riders experience negative g-forces, which gives them a slight feeling of floating out of their seats. Both of these feelings are caused by vertical g-forces. On curves, passengers experience g-forces pushing them side to side—these are lateral g-forces.

Miller says that too much of these forces can make a ride too scary or unpleasant, but too little can make a ride boring. "As roller-coaster designers, we manipulate the g-forces in order to make it feel fun and not painful," he says.

Use the g-force formula above to find out about some of the world's coolest thrill rides.

G-FORCE ON A ROLLER COASTER

G-force is a way of measuring the force of acceleration—a change in velocity over time. The acceleration of gravity is equal to 9.8 meters per second squared (m/s^2), or 1 g. Use this formula to calculate the g-forces or acceleration that riders experience on different roller coasters:

$$\text{g-force} = \frac{\text{acceleration in meters/second}^2}{9.8 \text{ meters/second}^2}$$

After the Disaster

Does it always make sense to **rebuild**?

by Justin O'Neill

Few things test the resilience of the human spirit more than natural disasters. Often our first impulse is to get everything back to exactly the way it was as quickly as possible. Even when entire cities are demolished by a tornado or wildfire, we come together and rebuild.

But might it be time to change our thinking?

Rather than returning devastated towns and cities to how they were—only, perhaps, for them to be devastated again—why not seize the opportunity to rebuild in smarter, safer ways?

This fireplace is all that remains of a home destroyed by the May 20, 2013, tornado that pounded Moore, Oklahoma. At least 24 people were killed.

Extreme Weather

The United States has a number of extremely disaster-prone areas. Moore, Oklahoma, for example, was rebuilt after tornado strikes in 1998, 1999, 2003, and 2010. Now this city of 55,000 residents is rebuilding again, after yet another tornado slammed it in May 2013. Then there is Dauphin Island, Alabama, a small and scenic strip of land in the Gulf Coast lined with beautiful beach homes. Since 1979, nearly a dozen hurricanes have hit Dauphin. Each time, the federal government—which is required by law to help cities and states rebuild after major disasters—has helped pay for restorations, spending at least $80 million on Dauphin over the past 34 years.

Money isn't the only issue, of course. Rebuilding in these vulnerable areas means that people's lives will continue to be at risk. According to the National Oceanic and Atmospheric Administration, the number of severe weather events causing at least $1 billion in damages has risen from two per year in the 1980s to more than 10 per year since 2010. Many scientists believe that global climate change is contributing to this rise—and that we can expect it to continue.

Does it make sense to keep building back up what nature continues to knock down?

Building Better

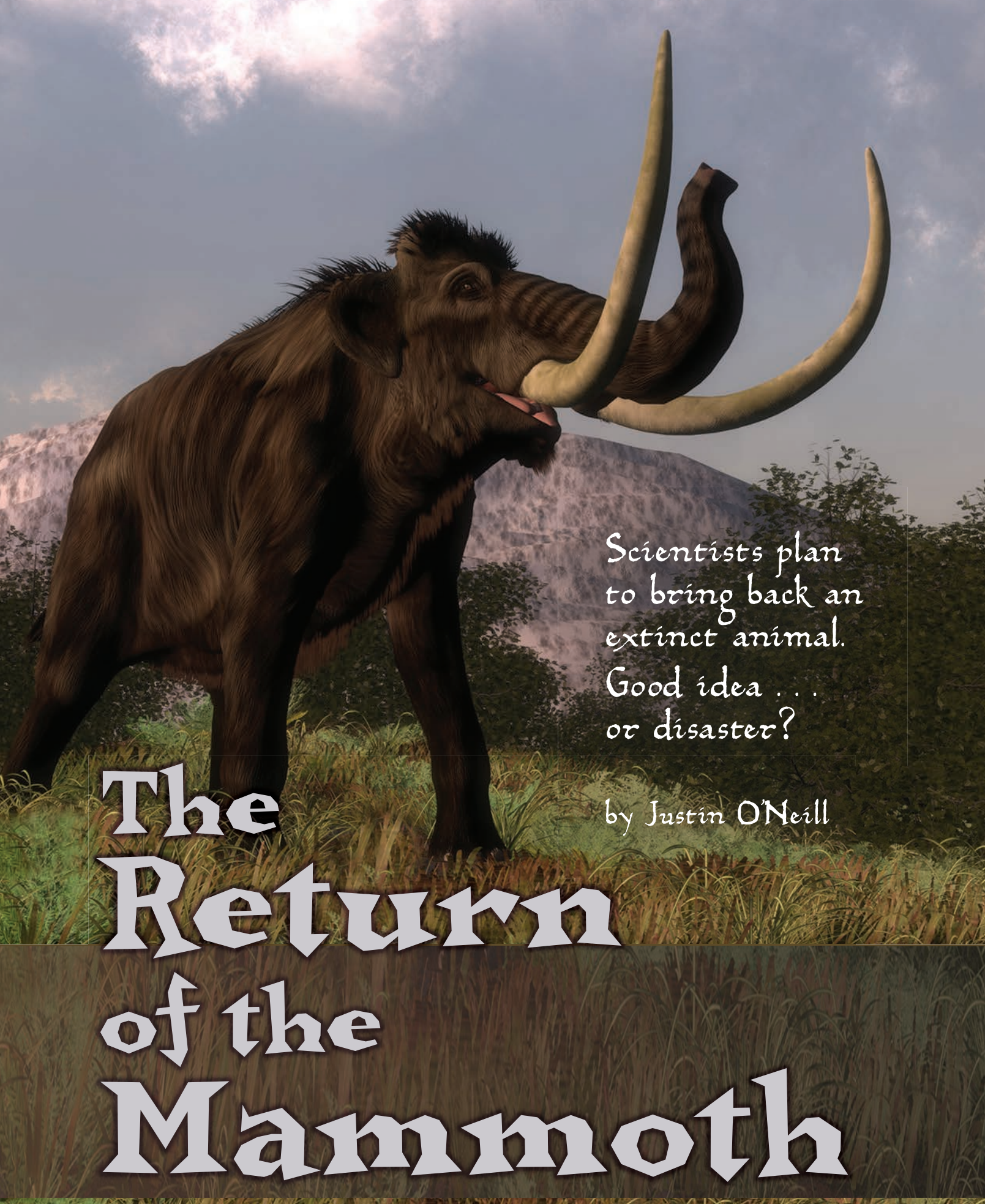
There may be a few places where not rebuilding is the smartest and safest thing to do. But in most areas, we just need to be willing to make some changes, whether it's moving oceanfront neighborhoods back from the beach or building carefully landscaped, fire-resistant zones around homes in wildfire country.

Actor Brad Pitt started a foundation to build super flood-proof homes in New Orleans, such as the one below.

New Orleans has set an excellent example of smart rebuilding. In 2005, Hurricane Katrina struck the Gulf Coast, killing at least 1,833 people. Eighty percent of New Orleans was flooded. Today, the city has been largely rebuilt—and it is stronger than ever. It has installed a major new flood barrier, 350 miles of levees and floodwalls, and the world's largest drainage-pump station. Many new buildings are designed to be flood-proof, and many new homes are elevated, to keep them safe from floodwaters. Similar steps are being taken in New York and New Jersey, the areas hit worst by Hurricane Sandy in October 2012. Tougher building codes are being enforced, and houses are being raised.

We can also draw inspiration from other parts of the world. In Japan, for example, amazing innovations protect high-rise buildings from earthquakes. Enormous rubber shock absorbers and sliding walls help these buildings withstand quakes, as they did in 2011, when the fourth-most-powerful earthquake on record hit Japan. Can California—the most earthquake-prone part of the United States—take a cue?

Sometimes the best defense against extreme weather is nature itself. Waterfront homes and businesses may need to be moved inland, and natural defenses against flooding—such as wetlands, coral reefs, sand dunes, and flood plains—restored. These ecosystems naturally slow and reduce storm surge—the wall of seawater that rushes onto land during a big storm. As we struggle with the long-term implications of climate change, it's time to take a close look at where and how we rebuild—and to summon the courage to consider a future different from the past.



The Return of the Mammoth

Scientists plan to bring back an extinct animal. Good idea . . . or disaster?

by Justin O'Neill

Imagine being face-to-face with a woolly mammoth. It would be quite a sight. Scientists believe it would tower at 11 feet tall. The woolly mammoth would have a sloped back, a long, powerful trunk, and sharp, curved tusks that stretch up to 10 feet. Its thick hair would be up to three feet long. It would weigh six tons—about as much as a bus.

You've probably never seen a giant furry elephant before. Actually, you definitely haven't. The species has been extinct for thousands of years.

But a few years from now, you might be able to see a woolly mammoth for yourself. Scientists believe they have the technology to recreate one.

Meet the Mammoth

A team of South Korean and Russian scientists plan to clone a woolly mammoth. How will they do it? Several woolly mammoth bodies have already been discovered in Siberia, an icy region in Russia. The scientists plan to take cells from these frozen mammoths. In a laboratory, they'll use them to create a new cluster of cells called an embryo. The embryo would be placed into the womb of a living female elephant. That elephant would then give birth to a baby woolly mammoth.

The scientists believe the whole process will take five years. Many scientists and animal lovers can't wait. It will be so exciting, they think, to be able to bring back to life a creature that has been extinct for thousands of years. People would travel from around the world for the chance to see a woolly mammoth. By observing the way the creature looks and acts, scientists might make brand-new discoveries about the history of animal life.

A Big Challenge

Other experts aren't so sure about the woolly mammoth project. One big question is what to do with a mammoth. Earth has changed in the thousands of years since these animals roamed the planet. Where would the creature live, and would it be able to survive in today's climate? Then there's the cost: Some believe that the money being spent on the experiment could be better spent on other important scientific projects, such as fighting disease. But the South Korean and Russian scientists are sticking to their plan. They admit they have a big challenge ahead. There is no guarantee that they will succeed, but they're hopeful. Besides, scientists in South Korea have already cloned dogs, coyotes, a cat, a pig, and a cow—why not a mammoth?

Hermit crabs act like a sea anemone taxi service. Anemones sometimes stick onto crab shells and ride to new places. In return, anemones give crabs protection from predators.

Two anemones feed on a jellyfish.

Stunning Sea Flower, or Deadly Animal?

A diver approaches a field of sea anemones, which blanket the seafloor near Antarctica.

One scientist unlocks the secrets of a strange and beautiful sea creature

by Sara Goudarzi

Estefanía Rodríguez is standing on a boat in the Southern Ocean off the coast of Antarctica. Even though it's summer, temperatures hover around -4° Celsius (25°F).

Rodríguez and other scientists have been waiting for two hours for the crew to haul up nets full of animals from the ocean floor. Once the nets are emptied, Rodríguez reaches for sea anemones (*uh-NEM-uhnees*), relatives of jellyfish and coral. Now the wait is worth it!

Each year, Rodríguez scours the seafloor for sea anemones. She is one of only five experts in the world studying these creatures, which scientists know little about. "For me, they are the most important thing in this world, apart from my family," says Rodríguez. She studies **invertebrates**, or animals without backbones, at the American Museum of Natural History in New York City.

More Than Meets the Eye

At first glance, sea anemones look like colorful, exotic flowers that sway with the current on the seafloor. But sea anemones are actually animals—and, in fact, they're *deadly* hunters.

Many sea anemones spend most of their lives anchored to one spot. Their bodies look like a hollow sack with an opening on top. The opening, or mouth, has **tentacles** surrounding it. Tentacles are narrow, flexible body parts—often used for feeling or grasping—that extend from the bodies of some animals and plants. On anemones, each tentacle is tipped with stinging capsules, which turn the tentacle into a weapon.

"These capsules contain darts and are filled with **toxins**," Rodríguez says. Toxins are natural poisons that can be used for protection or to kill or disable prey. "And they can be *very* nasty," Rodríguez notes.

Anemones swipe passing fish or shrimp with their tentacles. The prey are killed or stunned. Then they become the anemones' next meal.

Fortunately, sea anemones are more dangerous to small sea life than to people. "Usually, if you touch sea anemones with the palm of your hand, you don't feel pain," says Rodríguez.

Estefanía Rodríguez

More to Discover

On deck, Rodríguez collects the sea anemones from the haul. She takes them back to the museum for further study.

Every time Rodríguez gathers sea anemones, she discovers something new. She has found six new species and has identified surprising anemone behaviors.

Rodriguez knows her work is not finished. This winter, she is going to waters off the southern tip of South America. She hopes to make discoveries about the sea anemones there. "After I have an inventory of what species there are, I would like to study how they live," Rodríguez says.

Clownfish sometimes live among sea anemones' tentacles. They are immune to the tentacles' toxins. Sea anemones give clownfish protection. In exchange, the fish clean the anemones' tentacles.

Disaster on the Mountain

by Lauren Tarshis

On a beautiful late-winter day in 2002, two experienced outdoorsmen set out for an afternoon of backcountry skiing in Alaska's Chugach State Park. This was wild country. There were no ski lifts, cozy lodges, or ski patrols. The two men—John Stroud and Skip Repetto—had enjoyed these majestic mountains many times before. Like most explorers, they loved being in the wild, surrounded by the rugged beauty of the Alaska wilderness.

What these two friends did not realize was that something deadly lurked just beneath the newly fallen snow. Had they looked hard enough, they would have recognized the danger—but the day was so serene, so beautiful, it was hard to imagine anything could go wrong.

What started as a picture-perfect day turned into a terrifying nightmare when two Alaska skiers triggered an avalanche.

The first run down the mountain was like a postcard. At the end of the second run, a river of motion shifted through the snow, making the ground seem unstable.

Alarmed, Repetto shouted a warning to Stroud. But Stroud's dogs, which had come along to enjoy the splendid day, had already scampered into the valley, and Stroud had taken off after them.

Then Repetto heard an unforgettable sound—like the rumble of a freight train.

Whump!

In a split second, the mountain seemed to crumble. Like a frozen volcanic eruption, tons of ice and snow peeled away from the slope and began a thunderous, crashing slide down the mountain. Anything and everything in its path would be buried: trees, boulders, animals, people.

Repetto stumbled and fell but managed to right himself in time to escape. Stroud, however, was caught in a gully. The snow was an icy wave, leaving him helpless as it crashed around him, dragging him 500 feet. He clawed at the snow, desperate to stay on top, but the weight of his skis pulled him down. Within seconds, he was covered—first to his waist, then to his neck. Finally, the snow closed in over his head.

Stroud was buried alive.

Warning Signs

Over the past decade, the number of people killed in avalanches each year has been slowly rising. In the 1990s, there were about 15 fatalities per year. Today, the average is 29.

One reason for the increase is that more resorts, from Colorado to Wyoming, have been opening the backcountry to adventurers. Indeed, more than 400,000 skiers are now heading into the backcountry every year. In these wild areas, there are no emergency crews, and the slopes are not maintained or supervised.

Most avalanche victims are outdoor enthusiasts like Stroud—skiers, snowmobilers, and snowboarders. And, like Stroud, most of them could have avoided catastrophe. That's because avalanches are not freak natural disasters, like earthquakes, that strike without warning. Most killer avalanches are triggered by their victims. Yet there are almost always clear warning signs.

> The avalanche buried Stroud so completely that he couldn't open his eyes. The snow around him was as hard as concrete.

Few people understand this better than Jill Fredston and her husband, Doug Fesler. Their hand-built house sits on a windswept mountainside that is a 45-minute drive from where Stroud and Repetto were caught.

From this base of operations, within sight of 95 glaciers, these two avalanche experts have studied snow the way medical students study the human body—from all angles, down to the tiniest parts. Snow is not just a solid sheet of white. It comprises microscopic particles of water, air, and ice that bind together in intricate patterns, like lace. Why these particles stick together—and why they fall apart—is key to understanding avalanches. For example, if there is too much space between particles, the weight of just one person can cause an entire layer of snow to collapse.

That is exactly what happened to Stroud. His weight, and the weight of his two dogs, had triggered the avalanche.

To understand avalanches, Fredston and Fesler have also delved deep into Alaska's history. Fesler has spent dozens of hours in libraries poring over old newspaper articles and photographs, and has pieced together a vast history of avalanches over the past century. He has unearthed records of more than 4,200 avalanches that have destroyed homes and killed humans and other animals.

"Avalanche School"

As co-directors of the Alaska Mountain Safety Center, Fredston and Fesler have shared their knowledge with thousands of skiers, hikers, and snowmobilers. Their "avalanche school" teaches people how to recognize avalanche warning signs: Lots of fresh new snow, steep slopes, sudden weather changes, and high winds can all cause the snowpack to become unstable.

These and other dangerous conditions are often obvious, as though Mother Nature herself had posted warnings. Learning to look for these signs—and take them seriously—is key to staying alive in the wilderness.

But many people ignore the warnings. In February 2012, seven extremely experienced skiers were caught in an avalanche in Washington's Tunnel Creek. Three were killed. The group knew the terrain well; they also knew

they were skiing under prime avalanche conditions. Yet they went out anyway. Experts call this the "halo effect": The skiers felt safe simply because they were experienced and had skied the area before.

Like the skiers in Tunnel Creek, Stroud and Repetto had attended avalanche school. They knew avalanches were common in Chugach State Park, particularly on bright, sunny days following heavy snowfall. They also knew that colder, shadowed slopes are more avalanche prone. Yet just such a slope is where they ventured for their fateful ski run.

And then—*whumph!*—it was too late.

The avalanche buried Stroud so completely that he couldn't open his eyes. The snow around him was as hard as concrete. He couldn't move, much less dig himself out. His mouth had filled with snow. Within moments, he started to suffocate. He thought about his dogs, wondering if they had survived. (Sadly, both his dogs were killed.) And then he resigned himself to the fact that he was going to die.

Repetto, meanwhile, was badly shaken, but he did not panic. He knew time was precious. He had to find his friend immediately.

Luckily, the two men had not trekked into the wilderness unprepared. They were both wearing beacons, small tracking devices designed for exactly this kind of emergency. Stroud had one strapped to his chest. Even as he was drifting toward death, his beacon was sending out a steady electronic signal.

Repetto switched his beacon to "receive." Within seconds, it began to flash red lights that directed him to where Stroud was buried.

Avalanche safety gear like this can mean the difference between life and death. But some experts, like Jill Fredston, feel this gear creates a false sense of security. What's the use of a locator beacon if no one can get to you before you suffocate?

Repetto had other equipment to help him. His ski poles screwed together to form a probe. Rescuers use these slender, flexible poles to search through snow and debris for buried victims. After a few quick jabs into the snow, Repetto struck Stroud's back. Getting Stroud out, though, wouldn't be easy: He was trapped under four feet of snow.

A Dying Man

Strapped to Repetto's backpack was another piece of crucial emergency equipment: a light aluminum shovel. Repetto began to dig frantically, the snow piling up around him. After 10 minutes of exhausting work, he saw no sign of Stroud. Still, Repetto kept digging. He knew he had to create an airway for his friend as fast as possible. His arms ached. He was drenched in sweat. At last, he heard a noise—the rasping sounds of a dying man.

Repetto dug faster. He dug until the snow was chest-deep around him. He dug until he was too exhausted to dig, then he dug more until—finally—he saw Stroud's head.

Stroud wasn't breathing, and his face was blue. Repetto quickly scooped the snow out of his friend's mouth.

And then, to Repetto's relief, Stroud gasped for air. But he was in bad shape. It took 10 minutes for him to regain consciousness fully and another 20 minutes of digging for Repetto to free his body. If Repetto had arrived even one minute later, Stroud would have died.

In her critically acclaimed book *Snowstruck*, Fredston says that Stroud's story is typical except for one detail: He survived. The tragic truth of avalanches is that few people do. Fredston herself has unburied more than 40 victims, all dead. Most victims suffocate within 30 minutes of being buried. Others die during their terrifying tumbles down the mountain, as snow and debris knock their bodies around like rag dolls.

Yet the vast majority of these deaths could be prevented. "Nature sends out strong messages," Fredston says. "If only people would learn to listen."

Stop the Wrecks

by Martin

It's time for action! Texting while driving is dangerous—and you can help stop it! When you see a driver pick up a phone—speak up! The life you save may be your own.

The National Safety Council reports that cell phone use while driving leads to 1.6 million crashes each year. That means that nearly 330,000 injuries and 7,000 deaths occur each year from accidents caused by texting while driving!

You can be a voice in stopping this terrifying rate of injury and death. People know texting and driving don't mix, but they are still doing it. So, speak up!

Spread the word: "Never text while driving!"

DRIVING FACT

According to a study by the Virginia Tech Transportation Institute (VTTI), sending or receiving a text takes a driver's eyes off the road for an average of 4.6 seconds, the equivalent of driving blind at 55 miles per hour for the length of an entire football field.

Eagles

by Falia

The eagles of the world are swift, powerful birds of prey long admired for their power, ferocity, and regal bearing. As our national bird, these magnificent creatures stand as a symbol of national pride.

There are about sixty kinds of eagles, divided into four main groups:

- Booted eagles have a thick covering of feathers on their legs. They hunt for small animals in the mountains and woodlands. The North American Golden Eagle is a booted eagle. It is the most common eagle in the world.
- Harpy eagles live in the jungle and eat animals that live in trees, including monkeys.
- Snake eagles have stubby toes for grabbing snakes. Protected by thick feathers and scaly legs, snake eagles can eat poisonous snakes without being harmed. They also eat lizards, birds, and fish. There are no snake eagles in North America.
- Fish and sea eagles live near water. They have long talons and small spikes on their toes for gripping slippery fish. When fish and sea eagles cannot find fish to eat, they will attack seal and sea otter pups, ducks and geese. The Bald Eagle is a fish eagle. It looks bald because it has bright white feathers on its head. The Bald Eagle is our American national bird.

Eagles build their nests in tall trees, cliff ledges, or in other high, private places. They weave twigs and sticks together then line the nest with leaves, moss, grass, feathers and pine needles. They often keep the nest for many years and continue to add to it. Fish and sea eagles have built nests which measure as much as twenty feet high and eight feet across.

Predators like the eagle keep down the numbers of small animals in the wild. Without predators, there would be too many animals and not enough food. Eagles also help farmers by catching the mice and rats that destroy crops and stored food. Because birds of prey catch weak and sick animals, they prevent the spread of disease and help keep the whole animal population healthy.

Adult eagles have no enemies except for humans. As humans move into the wilderness, they cut down trees and poison the water and air. Small animals and fish take in the poisons, and so do the eagles that eat them. Eagles are shot, killed by the electricity in power lines and caught in traps meant for other animals. If left alone in the wild, eagles could live up to forty years. But sadly, too many come close to civilization and we now have only half as many eagles in the world as there were 100 years ago.

Firestorm

by Sofia

It isn't calm. It isn't quiet. It isn't safe. This is a situation no one should be in without extensive training and special equipment. Stay back. Be calm. Get to safety. A forest fire is raging out of control.

Forest fires spread quickly ragging through dry forests, grasslands and farmers fields. It is an infernoe of unpredictability that sucks oxigen from the air, gobbles up everything in its path, and even creates its own wind. The radiant heat from an advancing forest fire is so intenyse, it can kill people even befour the fire line is visible. Firefighters must carry oxygen to prevent suffocaetion as the fire is a ravenous beast devouring so much oxygen that nearby humans and animals quickly become oxygen deprived.

Hardy souls who chose to live in areas where forest fires are likely to occur should have special training in survival strategies that will enable them to understand a fire and the essential knowledge it takes to outmaneuver a nightmare. An escape plan should include preparation of a survival kit with food, water, medical supplies, and a back-up supply of gasoline to ensure that their vehicle can sprint to safety with little warning.

It isn't calm. It isn't quiet. It isn't safe. It's a forest fire.

On Their Own

by Ling

Loggerhead turtle drags her huge body out of the water and onto the dry sand of the very beach on which she was born.

In the water, her weight seemed like nothing, but on land every flipper step is a struggle. Her eyes run with tears from the strain and exertion as she drags her enormous weight away from the water.

At last, mother turtle reaches the soft, dry sand that she needs for a nest and begins to dig a hole. Her back flippers push and shove, reaching deep to create a safe place where her eggs with babies the size of bottle caps can mature.

When the hole is deep enough, loggerhead lowers her great body over the hole and lays more than one hundred eggs. As they land in the nest, the squishy ping-pong ball sized eggs inside settle together and mother turtle gently spoons sand into the hole. Cautious of predators, she levels and smoothes the surface so hungry animals will be less likely to know that the eggs are there.

Without a backward glance, loggerhead returns to the sea. Her babies must survive on their own.

Editing Checklist 2

Author Ling Date 10/29

I have reviewed this work for:

SPELLING

I corrected the spelling of: weight, cautious

☒ I checked for commonly confused words

Resources that helped me check spelling include: online dictionary

CAPITALIZATION

☒ Beginning of sentence

☒ Proper nouns (English muffin)

PUNCTUATION

☒ End of sentence (. ? !)

☒ Sentence opener followed by a comma

☒ Compound sentence joined by a linking word and a comma

GRAMMAR

☒ Complete sentences

☒ No fragments, unless for style

☐ Some interesting sentences:

The most interesting sentence in this piece is _____

_____

I think this sentence is strong because _____

_____