

March 5, 2018



SCHOLASTIC

News

Edition 5/6

with
Weekly
Reader.

video

The Drone Zone
scholastic.com/sn56

A rescue drone
flies over a beach
in South Korea.

DRONES TO THE RESCUE

From rescuing swimmers to fighting fires, drones
are helping to save lives around the world. **Page 4**

The World's Longest Underwater Cave p. 2 • Meet a New Lemur Species p. 3



Scuba divers explore the Sac Actun cave in Mexico.



Colossal Cave

Divers in Mexico discover the world's longest underwater cave.

The Yucatán Peninsula, in southeastern Mexico, is home to some of the world's longest caves. Each cave is actually a system of connected water-filled tunnels. They stretch for miles and branch off in different directions. Experts have long suspected that two of the longest of these caves are connected. For 10 months, a team of scuba divers and underwater archaeologists explored the maze of tunnels in search of a passageway between the two of them.

"It was like trying to follow the veins within a body," the team leader, Robert Schmittner, told a Mexican newspaper, *El País*. "It was a **labyrinth** of paths that sometimes came together and sometimes separated."

Word to Know

labyrinth *noun*. a place that has many confusing paths or passages; a maze

In January, the divers finally found the link. The combined network of caves is known as Sac Actun. In total, it stretches 215 miles, making it the longest underwater cave in the world.

Going Back in Time

Sac Actun is notable for more than just its length. Explorers have made some remarkable discoveries inside the cave. In 2007, divers found the skeleton of a mastodon, an extinct ancestor of modern elephants. They also came across some of the oldest evidence of humans in the Americas: a skull believed to be about 12,000 years old.

Hundreds of Maya artifacts, including ceramic pottery, have also been found inside the cave. The Maya were native to the area that is now Mexico and Central America. The height of their empire was from about 250 A.D. to 900 A.D. The Maya are known for their advanced understanding of mathematics and astronomy. They carefully tracked the movements of the planets and



the cycles of the moon and sun long before Europeans did. Experts hope that further exploration of Sac Actun will help them learn more about the ancient Maya civilization.

Researchers will also continue looking for new passageways within the Sac Actun system, which they think may be even longer. Three other large underwater cave systems are located nearby. Divers will keep exploring the maze of winding tunnels to see if Sac Actun connects with any of them.

For now, only one other cave in the world is longer than the Sac Actun. That honor belongs to Mammoth Cave in Kentucky, a mostly dry cave that is more than 400 miles long.

A Furry Find

Scientists discover a new species of lemur.

What has giant eyes and a long fuzzy tail and sleeps all day? A newfound creature named the Groves' dwarf lemur. It was discovered in the rainforests of Madagascar. Nearly all of the world's lemur species live on the island nation off the southeast coast of Africa.

The Groves' dwarf lemur was first spotted in 2014, but scientists had to study the animal carefully to **distinguish** it from more than 100 other known lemur species. Last year, they announced that the fuzzy creature is indeed a unique species.

Word to Know

distinguish *verb.* to notice or recognize a difference between animals, people, or things



The Groves' dwarf lemur is the 10th known dwarf lemur species.

The new lemur is about 6 inches long and has a 10-inch tail. Its size isn't the only thing that made it difficult to find. Dwarf lemurs are nocturnal. They spend the day sleeping in holes in trees. At night, they look for fruit and other foods in the treetops, where they're hard to spot.

More than half of all lemur species are endangered, mainly because of habitat loss. Large

parts of the rainforests have been cut down for lumber or cleared for farmland. Scientists will continue to study the Groves' dwarf lemurs to determine whether they're also in serious trouble.

"We still know so little about these lemurs," says Anthony Rylands of Global Wildlife Conservation, a group that helped identify the new species.

Picture THIS

A Sea of Bikes

Huge lots filled with colorful bikes, like this one, have become a common sight in cities across China. Bike-sharing programs have boomed in the Asian country, which now has more than 14 million shareable bikes. Riders unlock the bikes by using an app on their smartphones and pay about 15 cents per ride.

Cities in dozens of other countries have bike-sharing programs too. In most of those places, riders return the bikes to special docking stations. But riders in China can leave their bikes almost anywhere.

Cover Story

A drone flies over a wildfire in New Mexico.



DRONES TO THE RESCUE

From fighting fires to delivering medical supplies, drones are helping to save lives all over the world.

In early December, the hills surrounding one of the biggest U.S. cities were in flames. A massive wildfire was raging out of control in the Bel-Air neighborhood of Los Angeles, California. A major highway had to be shut down, schools in the area closed, and 46,000 residents were forced to evacuate.

To fight the wildfire, the Los Angeles Fire Department brought in some extra help. For the first time, it launched two drones. Firefighters on the ground steered them over the smoke-filled hills.

Words to Know

thermal *adjective.* of, relating to, or caused by heat

autonomous *adjective.* operated without the need for human control

The drones were equipped with cameras to give firefighters a clear view of the fire's path, allowing them to go directly where they were most needed.

It wasn't the first time drones were used during a fire. In recent years, the U.S. government has used these small, remote-controlled aircraft, also known as unmanned aerial vehicles (UAVs), to help monitor wildfires in national parks. Plus, dozens of local fire departments now have their own UAVs.

"Drones provide firefighters with information that they previously didn't have access to," says Brad Koeckeritz. He is the director of the drones program for the Department of the

Interior. That's the division of the U.S. government that oversees the National Park Service.

But firefighters aren't the only people using drones in emergency situations. These unpiloted vehicles are being used to help save lives worldwide.

Search and Rescue

In January, lifeguards in New South Wales, Australia, used a rescue drone to save two teens from drowning. While surfing, the boys had gotten caught in rough waters with 9-foot waves. Luckily, lifeguards nearby were testing their new drone. They steered the UAV toward the swimmers. Within seconds, the drone hovered over

the surfers and dropped a flotation device. The teens grabbed on and swam to shore, tired but unharmed.

Drones are being used in rescue missions in the U.S. too. Last year, park rangers began using UAVs to search for people who had become lost or stranded in Grand Canyon National Park. Rescuers had previously carried out searches in helicopters or on foot. But the drones can cover more ground in less time than traditional search methods. They can also zip through narrow spaces helicopters can't fit into. Koeckeritz says these drones are especially useful for nighttime rescues because they have **thermal**-sensing cameras that can detect people in the dark by their body heat.

"You can search all night long," he says. "People pop right out at you, and you can tell their precise location."

The Sky's the Limit

Across the world in Africa, UAVs are helping to get essential medical supplies to hospitals in remote areas. In Rwanda, a company called Zipline uses

drones to deliver lifesaving medicine and blood.

Drones come in handy in countries that have rough terrain, like Rwanda. When hospitals in far-away villages run out of vital supplies, deliveries by car may take up to a day. But Zipline's drones can fly over mountains and washed-out roads to reach their destination in a fraction of that time.

Zipline's drones are shaped like small airplanes with a 6-foot wingspan, enabling them to fly faster and farther than other drones. They are also **autonomous**. A staff member enters the drone's destination into a tablet, and the aircraft flies there automatically. After making its delivery, the UAV circles back to its home base.

Since 2016, Zipline has made more than 2,000 deliveries in Rwanda. It's planning to expand to the neighboring country of Tanzania later this year, with a fleet big enough to make 2,000 deliveries each day.

"Drones are going to play a big role in our lives now and for the future," says Zipline spokesperson Justin Hamilton.

—by *Tricia Culligan*

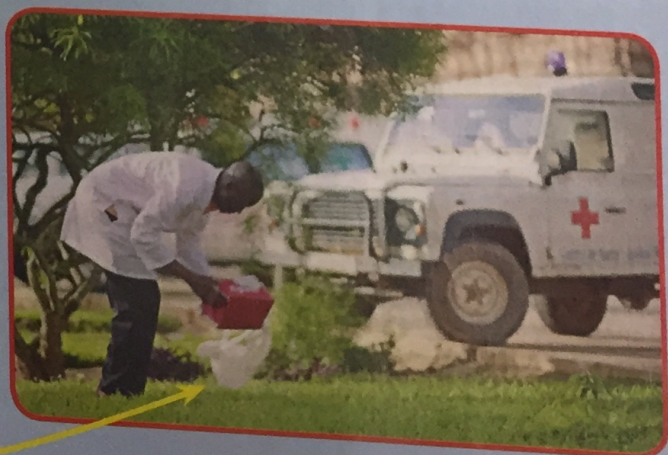
SAFETY IN THE SKY



Of course, not all drones are used for saving lives. Millions of Americans fly them for fun or to take photos or videos from the air. But you can't just fly a drone wherever and whenever you want. The Federal Aviation Administration (FAA) sets the rules for operating drones in the U.S. Here are some of them:

- You must register your drone with the FAA and mark it with your registration number.
- Never fly a drone near airports or emergency response vehicles or other aircraft.
- Drones may be flown only during daylight hours.
- Your drone must be within your sight at all times. (This rule makes it illegal for companies to use drones to make deliveries to far-away places.)

Zipline drones release boxes of medical supplies attached to parachutes. The boxes then float down to hospitals, where doctors pick them up.



EQUAL PAY
FOR
EVERYONE

Protesters march for women's rights in Atlanta, Georgia, in January 2017.



Closing the Gap

Iceland leads the way in making women's pay equal to men's. Will the U.S. follow?

Women who work in Iceland are ready for a raise. The country recently passed a law that forces companies to prove they're paying men and women equally for the same work. Iceland's goal is to eliminate the pay gap, or difference, between men and women by 2022.

Iceland isn't the only country where the gender pay gap exists. In fact, women are paid less than men just about everywhere in the world—including in the United States. In general, female workers in the U.S. earn about 80 cents for every \$1 male workers earn, according to the U.S. Census Bureau.

Congresswoman Rosa DeLauro of Connecticut is a longtime **proponent** of closing the pay gap. She has been trying to get Congress to pass a law called the Paycheck Fairness Act since 1997.

"Men and women in the same job should have the same pay. It's as simple as that," says DeLauro.

Word to Know
proponent *noun.* a person who argues for or supports something

A Long Struggle

Women have long fought for equality in the workplace. After decades of being shut out of many careers, women gradually made up a larger percentage of the U.S. workforce. Today, nearly half of all workers are women. But it has always been common for employers to pay men more for doing the same work.

In 1963, President John F. Kennedy signed the Equal Pay Act, which made it illegal for companies to pay unequal wages to women and men who do the same jobs. Since then, the pay gap has narrowed, but women's pay is still far from being equal.

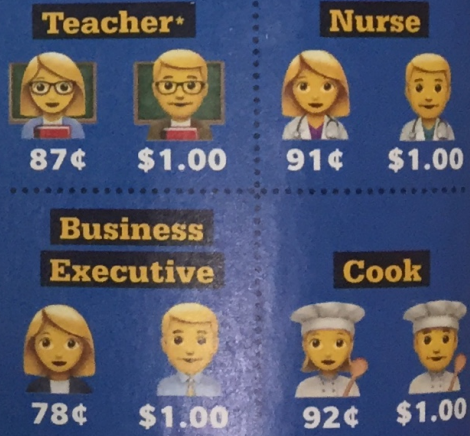
Part of the problem is that it's difficult for women to prove they're being paid less than their male coworkers. The Paycheck Fairness Act would change that. The law would require companies to show the U.S. government whether they're paying men and women the same salaries for the same work. The law would also make it easier for women to sue their employers for paying them less than men earn for equal work.

DeLauro points out that the pay gap also hurts millions of kids. In about 40 percent of U.S. households with children, women are either the sole or main wage earners. DeLauro says raising women's earnings could lift many families out of poverty.

"Now is the time to end the gender pay gap," she says.
—by Laura Anastasia

Doing the Math

Today, women in the U.S. are paid only 80 cents for every \$1 men make. However, the pay gap varies from job to job. Here's what the pay gap looks like in four different jobs.



*Elementary and middle school teachers. Note: Women's pay is rounded to the nearest cent. Sources: Institute for Women's Policy Research and the Bureau of Labor Statistics, 2017.



Do We Still Need Daylight Saving Time?

On March 11, most Americans will lose an hour of sleep. That's because most of the country will set their clocks ahead an hour for daylight saving time (DST). DST will last until November 4, when clocks will "fall back" one hour to standard time.

DST was introduced in the U.S. in 1918 as a way to save energy during World War I. Because the sun sets an hour later during DST, people can rely on sunlight instead of electricity to light their homes for longer.

A hundred years later, many people argue that it's time to stop "springing ahead" each year. They say the time change is confusing and disrupts people's sleep cycles. Others point out that DST can be a safety hazard. When the sun rises later, many kids have to

travel to school while it's still dark outside. Critics of moving clocks forward think the rest of the U.S. should follow the lead of Hawaii and most of Arizona, where DST isn't observed.

Yet some people think just the opposite: Instead of getting rid of DST, they want to have it year-round. Last year, lawmakers in Florida proposed the Sunshine Protection Act, which would make DST permanent in the state. Greg Steube, a state senator in Florida, says this would give people more time to spend outdoors.

"When the clocks go back in the fall, it gets dark at 4 or 5 o'clock," he says. "That limits the amount of after-school activities kids can do."

Here's what two of our readers think.

Yes! An extra hour of daylight means more fun in the sun.

I love having an extra hour of sunlight during DST. I can be outside more, playing with my friends. We watch less TV and get more exercise, which keeps us healthy. I hope the Sunshine Protection Act becomes a law in my state, so we won't have to turn the clocks back in November.

Plus, DST can have a big impact on sports. In some places, the fields where kids' teams play don't have lights. An extra hour of daylight would mean more time to practice. In pro sports stadiums, the lights would go on an hour later during DST. The mayor of Orlando, Florida, says this could save his city millions of dollars.

Ian Osterhaus, Florida



No! Daylight saving time is dangerous and outdated.

I live in Arizona, where we don't change our clocks. When I lived in California, "springing ahead" would mess up my sleep schedule, so I would be tired in school. A lack of sleep also makes adults tired when they're driving, which can be dangerous.

Besides, studies have found that DST doesn't really save energy. Before 2006, some places in Indiana didn't observe DST. When the entire state switched to DST, people did use less electricity for lighting. But they used more electricity for air-conditioning, because of the warmer extra hour of daylight each day.

Amanda Ridenour, Arizona



What's Your OPINION? Go online to cast your vote and download an opinion-writing skills sheet: www.scholastic.com/sn56

POSTAL INFORMATION: SCHOLASTIC NEWS Edition 5/6 (ISSN 1554-2440) is published weekly during the school year except holidays and mid-term. 22 issues, by Scholastic Inc. 2931 East McCarty St., P.O. Box 3710, Jefferson City, MO 65102-3710. Periodical postage paid at Jefferson City, MO 65102 and at additional mailing offices. POSTMASTERS: Send notice of address changes to SCHOLASTIC NEWS Edition 5/6, 2931 East McCarty St., P.O. Box 3710, Jefferson City, MO 65102-3710. Copyright ©2018 by Scholastic Inc. Scholastic News and associated designs are trademarks/registered trademarks of Scholastic Inc. All Rights Reserved. Materials in this issue may not be reproduced in whole or in part in any form or format without special permission from the publisher. Printed in the USA

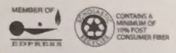
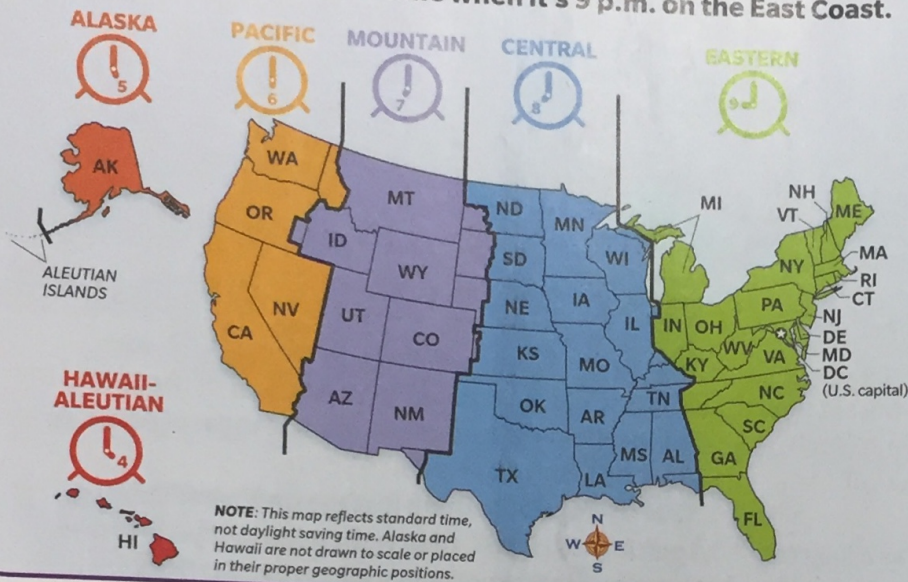


ILLUSTRATION BY J. MATSON; DEBATE PHOTOS COURTESY OF FAMILIES

News Map

Daylight saving time (DST) starts on March 11. But while people in New York are changing their clocks, DST will still be three hours away in California. That's because those states are in different time zones. The map below shows each of the six time zones in the U.S. The clock above each zone shows the time when it's 9 p.m. on the East Coast.



1. Colorado (CO) is located in which time zone?

2. When it's 3 p.m. in Oregon (OR), what time is it in Missouri (MO)?
 Ⓐ 1 p.m. Ⓒ 5 p.m.
 Ⓑ 3 p.m. Ⓓ 6 p.m.
3. True or false? A person traveling from Alaska (AK) to Georgia (GA) should set his or her watch back three hours. Explain.

News Review

Colossal Cave page 2

4. Robert Schmittner compares exploring the Sac Actun cave to "trying to follow the veins within a body" to help explain _____.
 Ⓐ why the cave is filled with water
 Ⓑ the difficulty of finding a passageway in the cave
 Ⓒ that the cave is home to many living things
 Ⓓ why so many artifacts have been found inside the cave
5. The Maya are known for _____.
 Ⓐ exploring the Sac Actun cave system
 Ⓑ their advanced understanding of astronomy
 Ⓒ discovering artifacts in Sac Actun
 Ⓓ being the first humans in the Americas

A Furry Find page 3

6. Which detail best explains why it was difficult for scientists to distinguish the Groves' dwarf lemur from other lemurs?
 Ⓐ It has giant eyes and a long fuzzy tail.
 Ⓑ Most lemur species live in Madagascar.
 Ⓒ There are more than 100 other known lemur species.
 Ⓓ More than half of all lemur species are endangered.



Drones to the Rescue pages 4-5

7. How did drones help firefighters battle a wildfire in Los Angeles last year?
 Ⓐ Drones delivered supplies to firefighters.
 Ⓑ Drones located people who were stranded.
 Ⓒ Drones sprayed water on the wildfire.
 Ⓓ Drones provided a clear view of the fire's path.
8. Which phrase from the article provides a context clue for the meaning of *autonomous*?
 Ⓐ "remote-controlled aircraft"
 Ⓑ "shaped like small airplanes"
 Ⓒ "enabling them to fly"
 Ⓓ "flies there automatically"
9. Zipline uses drones to _____.
 Ⓐ rescue people who are drowning in the ocean
 Ⓑ find people who are lost in the Grand Canyon
 Ⓒ deliver medical supplies to remote hospitals
 Ⓓ transport patients to hospitals
10. According to the sidebar "Safety in the Sky," Americans who own drones _____.
 Ⓐ are required to use them for rescue missions
 Ⓑ must register them with the FAA
 Ⓒ are allowed to fly them any time of day
 Ⓓ are allowed to fly them anywhere in the U.S.