

# GENTLE.NEWS

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## In Today's Edition

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Word Search Puzzle

*"I am not sure that I exist, actually. I am all the writers that I have read, all the people that I have met, all the women that I have loved; all the cities I have visited."*

— Jorge Luis Borges

### **Scientists Find Many Hidden Animal Species**

Scientists have made an exciting discovery about animals on Earth. They found that there may be twice as many animal species as we thought!

For every animal species we know about, there might be two more hiding in plain sight. These hidden animals are called "cryptic species." They look almost exactly the same as animals we already know. But their DNA tells a different story.

When scientists study the DNA of these animals, they find something amazing. The animals that look identical are actually from completely different family lines. They have been growing apart for over a million years. Even though they look the same, they are truly separate species.

This discovery is happening because scientists now have better tools to study DNA. It has become much easier and cheaper to compare the genetic codes of different animals. Fish, birds, mammals, reptiles, and other animals all seem to have these hidden species.

One example comes from Arizona. Scientists found hidden species in the local mountains. This pattern appears all around the world. Each new discovery helps us better understand the wonderful variety of life on our planet.

### Scientists Learn to Print Electronic Parts

Scientists have found a new way to make electronic parts. They can now print tiny switches using special inks and printers.

These switches are called transistors. They help control electricity in our devices. The new printed switches use very little power. They also last a long time.

The scientists work at a special laboratory. They use a printer that sprays tiny drops of ink. This ink contains very small particles that conduct electricity.

This discovery could help make many useful things. We might see flexible sensors that bend easily. Smart windows could change from clear to dark. Other new devices could help us in our daily lives.

The printed parts work better than older printed electronics. They are more reliable and save energy. This makes them perfect for future smart devices that need to work well for many years.

### Amazing Lake Hidden Under Ice in Antarctica

Scientists have found something wonderful in Antarctica. There is a special lake called Lake Unter-See. It is one of the biggest lakes on the icy continent.

This lake is very different from other lakes around the world. It stays frozen all year long. The water sits under thick ice that never melts. Even though it is frozen, sunlight can still shine through the ice.

The lake is very deep. It goes down almost 560 feet. That is taller than a 50-story building turned upside down. The water comes from a nearby glacier that slowly melts each summer.

What makes this lake really amazing are the tiny living things inside it. Small creatures called cyanobacteria live in the cold water. They build tall cone-shaped towers on the lake bottom. These towers grow very slowly over many years.

These little builders are very special. They can live in the dark, cold water under the ice. Scientists are excited to study them. They help us learn about life in extreme places on our planet.

## **Technology & Innovation**

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### **Scientists Use Smart Computers to Study Proteins**

Scientists have created a new computer program that helps them understand proteins better. Proteins are tiny parts inside our bodies that do important work to keep us healthy.

The new program is called AQuaRef. It uses very smart computer technology to look at proteins more closely than ever before. This helps scientists see exactly how proteins are shaped and built.

Before this program, it took scientists a very long time to study proteins. The work was also very hard to do. Now they can learn about proteins much faster and more easily.

When scientists understand how proteins work, they can help doctors find better ways to keep people healthy. They can also learn why some proteins don't work properly when people get sick.

The scientists who made this program work at a famous research center in California. They worked with other smart people from around the world. Together, they are helping us learn more about the amazing tiny parts that make up our bodies.

### Scientists Use Special Lights to Study Tiny Particles

Scientists at a lab in California made an exciting discovery. They found a new way to study the smallest parts of materials.

Everything around us is made of tiny building blocks called atoms. Each atom has even tinier parts called electrons that move around it. These electrons help decide what materials can do.

The scientists used two different kinds of special light. One was called X-rays and the other was laser light. When they shined both lights on materials at the same time, something amazing happened.

They could see how the fastest electrons move and behave. These electrons are very important because they help materials stick together. They also help decide if something conducts electricity or has other useful properties.

This discovery could help create better materials in the future. Scientists might make new substances that work better with sunlight. They could also make materials that change their properties when light hits them. This research opens doors to many exciting possibilities.

## Activity Time - Word Search

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Find the words below in the puzzle. Words go across or down only.

### Words to Find:

SCIENCE

SPECIES

PROTEIN

TOWERS

DEVICE

LIGHT

LAKE

