

CURIOUS TIMES WEEKLY

Age-Appropriate Content

School Curriculum-Aligned News

Non-Sensational News

The first American woman to walk in space dives into ocean's deepest point

Date : Jun 11, 2020 | Image Credit : [Twitter@EYOSExpeditons](#)

Former NASA astronaut Dr. Kathy Sullivan reached the deepest point in Earth's oceans – Challenger Deep.

Challenger Deep is located at a depth of 10,902 to 10,929 metre within the Mariana Trench in the Western Pacific Ocean.

In doing so, she has become the **first and only person to have travelled to space as well as the deepest point in Earth's oceans.**

She is the **first woman to reach Challenger Deep.** Dr. Sullivan was also the first American woman to walk in space during a Space Shuttle Challenger mission in 1984.

About the trip to Challenger Deep

Dr. Sullivan made the trip together with **Victor Vescovo**, a businessman and deep-sea explorer. They undertook the journey in the deep-sea submersible (vehicle) **Limiting Factor** and it lasted about four hours.

This dive was part of the Ring of Fire expedition organised by **Caladan Oceanic**, a deep-sea exploration company founded by Vescovo. It offered **3 people the opportunity to travel to Challenger Deep.**

After they returned, they discussed the trip with astronauts at the International Space Station (ISS), who **recently made a historic trip to the ISS onboard a SpaceX flight.**

Radar technology helps to make a map of a buried Roman city

Date : Jun 10, 2020 | Image Credit : [Twitter@Sarah404BC](#)

Falerii Novi was an ancient Roman city in Italy. Now, it is buried under the ground.

Recently, scientists have used **advanced radar technology that is able to "see" the city through layers of ground.**

With this, they have been able to **make a map of the entire city without digging it up.** They were even able to see how the city evolved over 100s of years till it was abandoned.

The new map shows us that Falerii Novi had a network of water pipes, a market, a temple, baths and a public monument.

The design of Falerii Novi city is different from Pompeii and other Roman cities that have been studied over the years. Even the public monument is very different from others.

What is the radar technology that they used?

This ground-penetrating radar system sends radio waves into the ground. Those waves hit and bounce off of objects. Their echoes create a picture of what's beneath the ground at different depths.

Different materials reflect the waves back differently, showing the city's different features. While the technology is not new, it is now faster and better than before.

Scientists are excited to see how this radar technology can help us study more such cities buried underground.

Quote of the week



"One of the first conditions of happiness is that the link between the man and the nature shall not be broken."

Leo Tolstoy

Word to know



Abolish
Verb | uh-bol-ish

to end an activity or custom officially

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Scientists recreate how mass extinction happened 66 million years ago

Date: Jun 8, 2020 | Image Credit: Pixabay



66 million years ago, Earth was struck by a huge asteroid. This event wiped out about 75% of life on Earth, including dinosaurs. This is known as a 'mass extinction'.

Recent computer simulations by an international team of researchers suggest that this asteroid struck Earth at the "deadliest possible" angle.

This means it struck at such an angle which maximised its deadly effect on the planet and animals.

What does the study say?

- For this study, scientists examined the shape and structure of the Chicxulub meteorite crater in Mexico. This is where the asteroid hit Earth.
- The asteroid is thought to have been between 10 and 15 km wide while the Chicxulub meteorite crater measures around 200 km wide.
- Then, they used the data to create 3D computer models of a similar-sized asteroid travelling approximately 43,000 km/h.
- They found that the asteroid struck Earth at an angle of about 60 degrees.

What happened when the asteroid hit?

- The upper layers around the Chicxulub crater contain high amounts of water as well as porous carbonate and evaporite rocks.
- When heated and disturbed by the asteroid impact, these rocks would have decomposed, releasing vast amounts of carbon dioxide, sulphur and water vapour into the atmosphere.
- The sulphur blocked the Sun's rays, halting photosynthesis in plants and rapidly cooling the climate, leading to the mass extinction.
- If the asteroid had come in from straight overhead, it would not have been so deadly.

Talking about dinosaurs, we have this interesting poem from yesterday. If you haven't read it, you missed something big. Dinosaurs by Aabir Basu.

There is an Earth-size exoplanet around the star closest to our Sun

Date: Jun 10, 2020 | Image Credit: Wikimedia Commons



Astronomers have confirmed the existence of **Proxima b**, an Earth-size exoplanet orbiting the closest star to our Sun, **Proxima Centauri**. Proxima Centauri is 4.2 light-years from our Sun.

Proxima b was actually discovered in 2016. However, recently, a new instrument called **ESPRESSO** (Echelle SPectrograph for Rocky Exoplanets and Stable Spectroscopic Observations) located at the Very Large Telescope in Chile was used to measure the planet more accurately.

More about Proxima b

Proxima b is 1.17 times the mass of Earth. It completes an orbit around its star every 11.2 Earth days.

Proxima b is 20 times closer to its star than Earth is to the Sun. However, since Proxima Centauri is a low-mass red dwarf star, it receives similar energy that Earth does from the Sun.

It is the closest exoplanet there will ever be to Earth, which is similar to Earth and within the habitable zone. This means it may have liquid water and the possibility of life.

The data from ESPRESSO also revealed a second signal around Proxima Centauri, which scientists are not sure what it is yet. They think that it could be another planet, much smaller than Earth. This would not have been detectable by older instruments.

This new finding shows us how the new technology of ESPRESSO can be used to find many new small planets very close to its suns, which was difficult before.

It also shows us how old data can be useful when you get new information.

Did You Know



Iridium is one of the rarest metals found on Earth. It is usually associated with extraterrestrial impacts, as the element occurs more abundantly in meteorites.



Joke Pokes



Q. When is it bad luck to meet a black cat?
A. When you're a mouse.

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My Expressions

Dinosaurs

Date : 7 June 2020 | [Aabir Basu, Grade 5, Scottish High International School , Gurgaon](#)

Roar goes the T-rex
Trampling creatures in his path
You better look out above
'Cause he moves fast

Three horn- two made of bones
One with just ligament
I meant the three horned Triceratops
Whose frill can't be bent

The quick Velociraptor
Whose speed can't be beat
He may be small but he's fast
And he also eats meat

The armoured Stegosaurus
With a spiked tail
With both spikes and armour
In a battle he wouldn't fail
It's a hadrosaur, which comes with a crest
That is used to make a sound
To warn the rest
I'm talking about the Parasaurolophus
Whose features can dazzle all of us

The Pterodactyls are Pterosaurs
That means prehistoric reptiles of the sky
They had wings long, big and wide
Which helped them fly

The Plesiosaurus can swim
(It's not a special dinosaur)
It's a sea reptile, which dinosaurs aren't
And it's a carnivore

This is the Pachycephalosaur
With a big dome head
They'll fight for leadership
Even if their opponent's dead

The huge Ankylosaurus
Which has spikes all around
And with a big club tail
Which by the way, doesn't trail on the ground

The gigantic Titanosaurus
Who has a very long neck
If it lived right now
The buildings would be a wreck

The bird-like Chirolestes
Which had feathers
To keep them warm
In the cold weather

The huge Dilophosaurus
Which has an amazing double crest
Among all the dinosaurs that have them
It is probably the best!

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Scientists discover ancient great white shark fossil nursery in Chile

Date: Jun 9, 2020 | Image Credit: Wikimedia Commons



Have you read about **great white sharks** (or great whites)?

They are famous for their large size and being **great hunters with fearsome teeth**. Great whites are also **very important to the ecosystem**. However, **today, their population is very less** due to pollution and illegal hunting. This makes it difficult to study them.

Recently, a team of scientists recently found evidence of an **ancient great white shark nursery in the Coquimbo Region** of northern Chile. These sharks would have lived between 2.5 to 5 million years ago.

What does the study say?

- Great whites are **known to protect their young** (known as pups).
- They keep them in nurseries, usually in shallow seas or protected bays, till they are old enough. A nursery is a room or place set apart for the young.
- The scientists were studying great white shark teeth fossils from three locations in South America when they realised that most of the teeth from Coquimbo were of juveniles (teens).
- This shows that Coquimbo must have been the site of a nursery. It also shows that great whites have used nurseries to raise their young for millions of years.

The study also indicates that Peru and Chile had large populations of great whites during ancient times.

Great white shark nurseries exist today as well but only a few are known to us. Scientists say that by studying the ancient nursery, **we can help understand how to save the sharks today**.

Major oil spill in Russia spreads towards the Arctic Ocean

Date: Jun 10, 2020 | Image Credit: Twitter@Timholt99



On 29 May, 20,000 tons of oil leaked from a collapsed fuel tank in the **Ambarnaya river in Norilsk** in Russia's Arctic region.

The oil spill has now **polluted Lake Pyasino**, a large freshwater lake. There are concerns that **it could spread into the Arctic Ocean too**. It is believed to be the worst accident of its kind in modern times in the region.

Russia has **declared it an emergency**. Emergency teams are trying to contain the oil. They estimate that it could take up to 10 years to fully clean up.

What caused the fuel tank to collapse?

Investigators believe it sank because melting permafrost weakened its supports.

Permafrost indicates an area that is frozen continuously for two or more years. Around 55% of Russia's territory, largely Siberia, is permafrost.

This year, the Arctic is experiencing unusually warm weather, which is likely due to global warming. This melted the permafrost.

Norilsk has been a pollution hotspot, because of contamination from industries in the region. The company was warned about this but it did not take proper measures.

A criminal case has been filed on the company that owns the fuel tank, Norilsk Nickel, over pollution and negligence. Norilsk Nickel has said it will pay for the cleanup.

Tongue Twister!



Fuzzy Wuzzy was a bear. Fuzzy Wuzzy had no hair.
Fuzzy Wuzzy wasn't fuzzy, was he?

Joke Pokes



I started writing a story about a broken pencil, but I gave up because it was pointless.

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9-year-old boy wins award for invention to stop the spread of COVID-19

Date : Jun 8 , 2020 | Image Credit : [Twitter@BungomaDigital](#)

Stephen Wamukota is a 9-year-old from Bungoma County in Kenya. He has invented a **wooden hand-washing machine** to limit the spread of COVID-19.

Last week, Stephen received the **Presidential Order of Service, Uzalendo (Patriotic) Award** from Kenyan President **Uhuru Kenyatta** for his invention.

- He was the **youngest of 68 people** chosen to receive the award.
- Stephen's father said that his son came up with the idea after learning about the importance of hand-washing to stay safe from COVID-19 on a local TV channel.
- Stephen's machine, which is made of wood, has two feet pedal to release soap and water.
- It allows users to be able to wash their hands without having to touch the machine with hands.

Stephen says he has made two machines till now and wants to make more. He hopes to become an engineer someday.

Apart from the award, the governor of Bungoma County has also promised Stephen a scholarship to a good school so that he can study for free. For now, the schools are closed due to COVID-19.

South Africa partners with NASA to host a deep-space ground station

Date : Jun 9 , 2020 | Image Credit : [NASA](#)

The South African National Space Agency (SANSa) has partnered with NASA to build a **deep-space ground station**. It will support future human spaceflight missions to the Moon, Mars and beyond.

South Africa is now the fourth country after the US, Spain and Australia to host a NASA deep space ground station.

What are the details of this station?

South Africa is suitable for such a station as it is at the tip of the African continent. It will be built at **Matjiesfontein town** in the Western Cape Province in South Africa. The climate at Matjiesfontein is perfect for the frequency that will be involved in the space studies.

It will have **dish antennas as tall as a 20-storey building**. This large size is important to capture the signals sent from space missions which will be millions or even billions of km away from Earth.

SANSa will operate, maintain and manage the station. It will be connected to the other three sites in the US, Spain and Australia, called the **NASA Deep Space Network (DSN)**.

The station will also help in the development of science, engineering, technology and more, in South Africa.

SANSa and NASA have worked together earlier as well. In 1961, a station was built in South Africa to track NASA's space probes.

Tongue Twister!



Two tiny tigers take two taxis to town.

Joke Pokes



What is worse than raining cats and dogs?

Hailing taxis!

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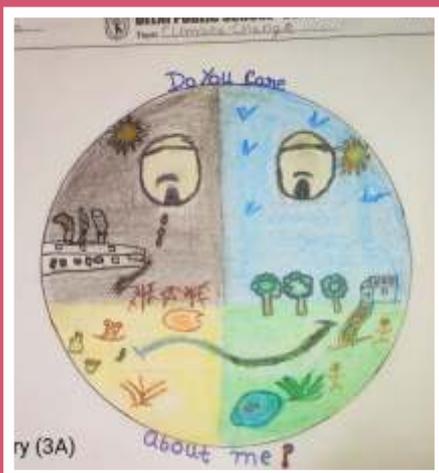
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My Expressions

World Environment Day



Avi Chaudhary

Grade 3, Delhi Public School,
Sonapat, Haryana



Meenakshi Mewari

Grade 4, Setu Shiksha Jyoti Kendra,
Noida ,



Saanchi Matta

Grade 3, Delhi Public School,
Sonapat, Haryana



Navya

Grade 3 , Setu Shiksha Jyoti Kendra,
Nithari , Noida , Uttar Pradesh



Darsh Nayyar

Grade 3, Delhi Public School,
Sonapat, Haryana



Jiya Singh

Grade 12+, Setu Setu Shiksha Jyoti
Kendra, Nithari, Noida, Uttar Pradesh

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New study shows what a 110-million-year old dinosaur ate

Date: Jun 5, 2020 | Image Credit: [Twitter@RoyalTyrrell](#)

Can you imagine what an **armour-plated dinosaur that weighed more than 1300 kg** must have eaten? Thanks to scientists, we know now – it ate a lot of leafy greens!

Scientists recently studied the stomach contents of the fossils of a nodosaur which lived 110 million years ago.

It has been named **Borealopelta markmitchelli**. It was 18-feet-long and had bony armoured plates (like the gear that soldiers wear to protect themselves in battle).

- The nodosaur was originally discovered in a mine in Canada in 2011 and has been on display at Canada's **Royal Tyrrell Museum** since 2017.
- When scientists studied sections of its stomach under a microscope, they were shocked to find well-preserved plant material.
- The study showed that the nodosaur's last meal was **mainly fern leaves**, with some stems and twigs mixed in.
- They also found charcoal in the stomach that suggests the animal was browsing in an area where ferns were regrowing after a fire.

This is an interesting find as it's very rare to find actual preserved stomach of dinosaurs and in such well-preserved conditions.

Astronomers find a new galaxy 'Wolfe Disk' in the distant universe

Date: Jun 7, 2020 | Image Credit: [NRAO/AUI/NSF, S. Dagnello](#)

A while ago, we read about the first-ever "collisional ring galaxy" discovered **11 billion light-years away**,

Recently, **astronomers** have spotted a massive rotating disk galaxy. A disk galaxy is a galaxy that looks like a disk – a flattened circular volume of stars.

It is one of the oldest **disk galaxies to be discovered**. It was formed by a **different method from how disk galaxies are usually formed**.

What are the details of the galaxy?

- This newly discovered galaxy is known as **Galaxy DLA0817g** but has been nicknamed the **Wolfe Disk** after late astronomer Arthur M. Wolfe.
- It was formed 12.5 billion years ago when the universe was just 1.5 billion years old. It produces stars 10 times more than our galaxy does.

What is remarkable about its formation?

- The universe, soon after the Big Bang, was a violent time in space with galaxies colliding. So, new galaxies were not well-formed or stable.
- However, the Wolfe Disk is stable and well-formed. This shows **that it was formed in a different way, known as cold-mode accretion**.
- Generally, disk galaxies are formed when structures of dark matter draw in gas, which makes star formation possible. This then gets heated by collisions and form a disk once it cooled, a process that takes billions of years.
- However, in cold-mode accretion, much cooler gas is drawn into a new galaxy and allows for quicker formation of a disk.

This shows that other such old disk galaxies exist out there. Scientists used the Atacama Large Millimeter/submillimeter Array of telescopes (ALMA) in Chile to make the discovery.

Did You Know



The largest known dinosaur is the Argentinosaurus. It lived about 100 million to 93 million years ago. This titanosaur (giant long-necked and long-tailed herbivorous dinosaur) was believed to be more than 40 metres tall.



Word to know



Gigantic
Adjective | jahy-gan-tik

extremely large

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Cybersecurity is a shared responsibility!

Date : 9 June 2020 | Angela, Grade 12, Excelsior English School, Kottayam, Kerala



As Jeh Johnson, Former United States Secretary of Homeland Security, precisely said “ Cybersecurity is a shared responsibility and it boils down to this: in Cybersecurity, the more systems we secure, the more secure we all are”.

Today, cybercriminals seem to be capitalizing on the anxiety caused by the COVID-19 pandemic. Their tools include data harvesting malware, ransomware, online scams, and phishing.

It is estimated that one cyber attack takes place every 39 seconds. Ever since the virus outbreak began the cyberspace has been flooded with targeted cyber attacks. Cyber Security agencies have seen a surge in large scale password spraying campaigns against healthcare bodies and medical research organizations. All of us are constantly at the risk of cyber scams and this comes with the ever-evolving technology that we all embrace.

As we all know, in a post-COVID 19 world, cyberattacks on business and healthcare are going to be the norm of the day. But it cannot be addressed as easily or quickly as it is today unless it is taken up as an **individual responsibility**.

This is not done by only protecting your accounts and devices from online scams **but also reporting them and sharing your experience to spread awareness and more importantly the seriousness of the danger it poses.**

During this lockdown, let us personally take up the challenge of minimizing cyberattacks by sharing our experiences at platforms such as Curious Times and effectively build a barricade of understanding and awareness against our most potent nemesis today.

Did you miss these news? Find them on [CuriousTimes.in](https://www.curiousTimes.in)

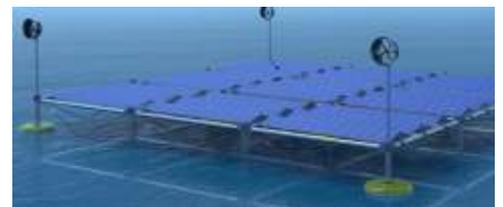
Protests against racism and police brutality continue in the U.S.



New Zealand PM says she ‘did a little dance’ as the country is COVID-19 free



World’s first hybrid ocean power station generates power from waves, wind and Sun



Vaccine initiative for children worldwide gets US\$8.8 billion funding



School children write to cheer up lonely fish during COVID-19 pandemic



COVID-19 update: Cases in the U.S. cross 2 million

