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THE TIMES OF INDIA

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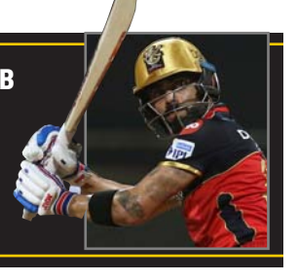
TODAY'S EDITION



STUDENT EDITION

TIMES nie Newspaper in Education

TUESDAY, APRIL 27, 2021

WEB EDITION

CLICK HERE: PAGE 1 AND 2

A black hole dubbed 'the Unicorn' may be galaxy's smallest one

Scientists have discovered what may be the smallest-known black hole in the Milky Way galaxy and the closest one to the Earth found to date. Dubbed, 'the Unicorn' the black hole is roughly three times the mass of our sun. It appears to be a companion to a red giant star, which is how scientists were able to find it. Since black holes aren't visible, researchers were able to locate this one after analysing data, documenting certain changes in the companion star.

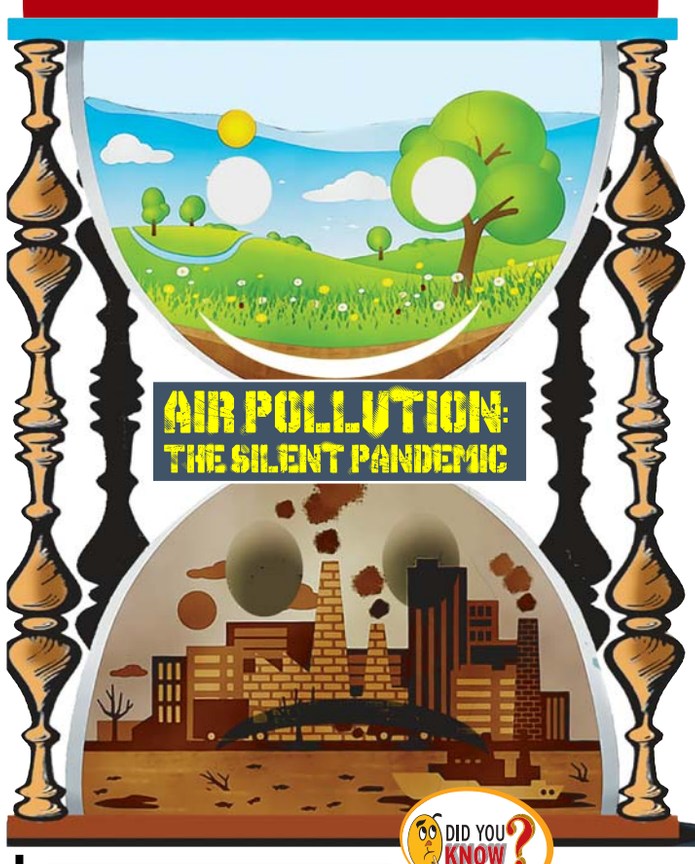
PIC: REPRESENTATIONAL

➤ A luminous star called a red giant orbits with the black hole in a so-called binary star system named V723 Mon

- The black hole is located about 1,500 light years — the distance light travels in a year, 9.5 trillion km — from the Earth. While it may be the closest one to us, it is still far away. By way of comparison, the closest star to our solar system, Proxima Centauri, is 4 light years away
- According to scientists, black holes like this one, form when massive stars die and their cores collapse
- The black hole was given the nickname 'unicorn' not only for being so rare but also because it was discovered in the constellation Monoceros, which means unicorn

- There are various categories of black holes. The smallest, like 'the unicorn,' are so-called stellar mass black holes, formed by the gravitational collapse of a single star. There are gargantuan 'supermassive' black holes like the one at our galaxy's centre, 26,000 light years from the Earth, which is four million times the sun's mass

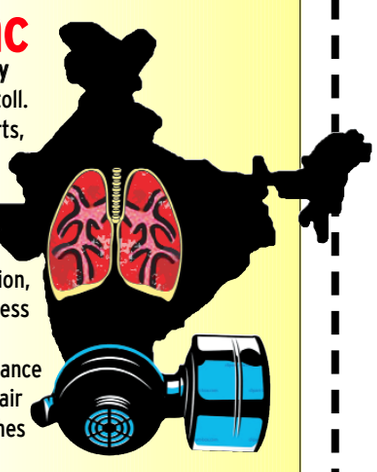
$95 BILLION



That's the loss Indian businesses have to bear every year, courtesy air pollution, claims a study. It is 3% of the country's gross domestic product, and cuts annual consumer spending by $22 billion, the report adds. In fact, it is 40% of the cost of tackling the Covid-19 pandemic, and is equivalent to 3% of India's GDP in 2019...

How it affects India Inc

Labour productivity takes the biggest toll. According to experts, **lost labour productivity costs Indian businesses $30billion**, courtesy air pollution, as businesses witness around 10%net decrease in attendance on days, when air pollution reaches hazardous zones



Similarly, it undermines the **consumer economy** by reducing consumer spending, costing around $22billion in 2019, as consumers avoid exposure to pollution, akin to what is being observed during Covid-19 pandemic. According to estimate, **apparel and food,** bear a negative 50% of the overall cost.

HOW IT AFFECTS HEALTH

Air pollution contributes to 18% of all the deaths in India, which translates to a loss of 3.8 mn workdays

21 of the world's 30 cities with the worst air pollution are in India

Spotlight

'Nomadland' wins big at pandemic Oscars as Zhao makes history

US road movie 'Nomadland' emerged as the big winner at the Oscars on Sunday with three major prizes, including a history-making award for director Chloe Zhao, as Hollywood celebrated its most-glamourous night with a unique pandemic-era gala. Zhao's drama about marginalised Americans roaming the West in vans was honoured for the best picture, director and actress for Frances McDormand, who now is in elite company with her third Academy Award for performing.

No-show Anthony Hopkins pulled a surprise upset to win the best actor in the final award of the night

'Captain America 4' in the works; 'The Falcon and the Winter Soldier' writer Malcolm Spellman penning script

Entertainment

Captain America 4' is moving forward at the Marvel Studios, with 'The Falcon and the Winter Soldier' series writer Malcolm Spellman attached to pen the script. Spellman, who was the head writer and creator of the Disney+ and Marvel's series, will write the script with Dalan Musson, a staff writer on the same show, according to The Hollywood Reporter.

- Chris Evans played Captain America through his Steve Rogers' character in all the three films but at the end of the 'Avengers: Endgame', he retired and handed his shield to Anthony Mackie's Sam Wilson, whose story is mapped in the series, along with Sebastian Stan as Bucky Barnes/the Winter Soldier
- The fourth 'Captain America' is likely to continue with Wilson's story, though there is no official update on the casting

INGENUITY HELICOPTER SNAPS FIRST AERIAL COLOUR IMAGE OF MARS

NASA'S INGENUITY MARS HELICOPTER has captured the first colour image of the Martian surface. The Ingenuity Mars Helicopter captured it with its colour camera during its second successful flight test on April 22, the US space agency said. While capturing the image, Ingenuity was 17 feet above the surface, and pitching (moving the camera's field of view upward) so the helicopter could begin its 7-foot translation to the west, away from the rover. The image shows a closeup of a portion of the tracks the Perseverance Mars rover and Mars surface features, demonstrating the utility of scouting Martian terrain from an aerial perspective

Devdutt Pattanaik pens new book on culture, art & heritage for IAS aspirants

BOOK

Noted mythologist Devdutt Pattanaik's new book for civil services aspirants shows how amalgamation of culture, art and heritage have created, built and resurrected the Indian society from its inception. 'Indian Culture, Art and Heritage', available in both English and Hindi, is classified by themes, geography and history, and aims to help students understand the logic behind culture and what it encompasses.

- With more than 200 examination-based questions, the book covers many important illustrations for aspirants
- The 496-page book, priced at ₹ 695, is presently available for sale on online and offline stores

Chocolatiers in Spain recreate Pablo Picasso's 'Guernica' to celebrate their heritage

Photo: TIMES NOW

Chocolatiers hailing from the Basque Country in Spain have recreated the famous painting 'Guernica', which was created by renowned artist, Pablo Picasso. 'Euskal Gozogileak', a local association, made the tragic masterpiece, along with a group of chocolatiers, who recreated the painting with chocolate of different colours. This will be presented on the 85th anniversary of the bombing of the Basque town named Guernica, ahead the Second World War. The chocolatiers managed to complete it with 14 separate chocolate slabs.

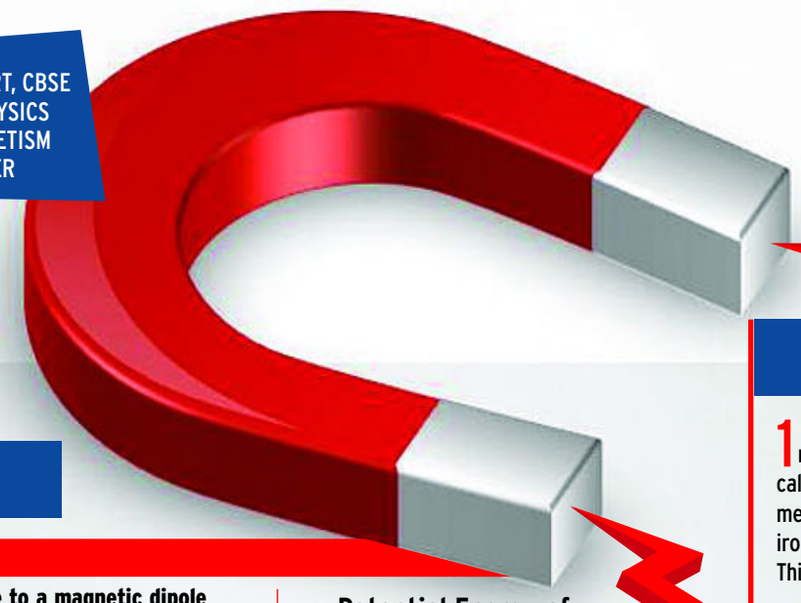
➤ The famous Cubist painting was Pablo Picasso's response to the Nazi agenda, which was carried out in the form of bombings all across Europe by their warplanes in order to assist the fascist ruler of the country, General Francisco Franco, during the Spanish Civil War

➤ Showing the tortured and tormented human and animal figures, the painting depicts the plight of the Basque community during the bombing

IT'S MAGNETIC!

"Mariners at sea, when, through cloudy weather in the day which hides the sun, or through the darkness of night, they lose knowledge of the quarter of the world to which they are sailing, touch a needle with a magnet, which will turn round till, on its motion ceasing, its point will be directed towards the north."

CLASS: XII NCERT, CBSE
SUBJECT: PHYSICS
TOPIC: MAGNETISM AND MATTER



The Undiscovered
- The origin of spin magnetic moment
- Monopoles.

S Aparna Raju,
Teacher, DPS,
Bangalore East

Johann Carl Friedrich Gauss
(1777-1855)
German mathematician and physicist.
He Discovered Gauss Theorem in 1813

PERSISTENT MAGNETISM

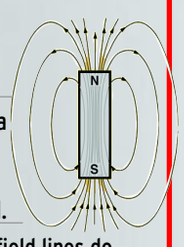
PROPERTIES AND BASIC LAW

1 Properties of Magnetic field lines:

i. They form continuous closed loops.

ii. Tangent at a point gives direction of magnetic field.

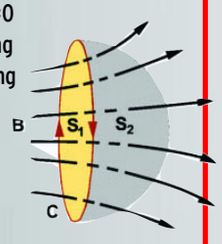
iii. Magnetic field lines do not cross each other.



2 More field lines/ unit area, means stronger magnetic field

3 **Gauss Law:** Net flux through any closed surface is zero.

$\phi_B = \sum B.\Delta S = 0$
Flux entering = flux leaving
$\rightarrow \phi_B = 0$



DERIVATIONS

1 Magnetic field intensity due to a magnetic dipole (solenoid/bar magnet) along its axis.

Magnetic field due to element dx at point P (magnetic field on axis of current carrying loop: chapter 4)

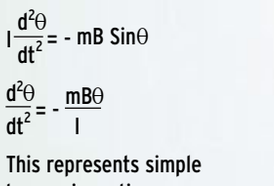
$$dB = \frac{\mu o n I a^2\, dx}{2\sqrt[3]{[(r^2-x^2)+a^2]}}$$

$$B = \int_{-l}^{+l} \frac{\mu o n I a^2\, dx}{2\sqrt[3]{[(r^2-x^2)+a^2]}}$$

r>>l,x & r>>a

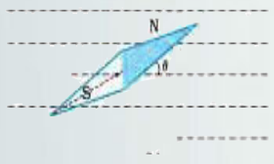
magnetic dipole moment: $m = n2l \times \pi a^2$

$$\therefore B = \frac{\mu o\, 2m}{4\pi\, r^3}$$



2 Torque on a magnetic dipole (bar magnet) in a uniform magnetic field

Restoring Torque on needle:



$\tau = m \times B$
$= mB \sin\theta$
Deflecting torque is $= I\frac{d^2\theta}{dt^2}$

I = moment of Inertia
In equilibrium

$$I\frac{d^2\theta}{dt^2} = -mB\sin\theta$$

$$\frac{d^2\theta}{dt^2} = -\frac{mB\theta}{I}$$

This represents simple harmonic motion:

$$\omega^2 = \frac{mB}{I}$$

$$\therefore T = 2\pi\sqrt{\frac{I}{mB}}$$

3 Potential Energy of Magnetic Dipole in Magnetic Field

Work done to rotate through $d\theta$:
$dW = \tau d\theta = mB\sin\theta d\theta$

$$U = W = \int_{\theta 1}^{\theta 2} mB\sin\theta d\theta$$
$$= -mB(\cos\Theta_2 - \cos\Theta_1)$$

$\Theta_1 = 90^o$, $\Theta_2 = \Theta$

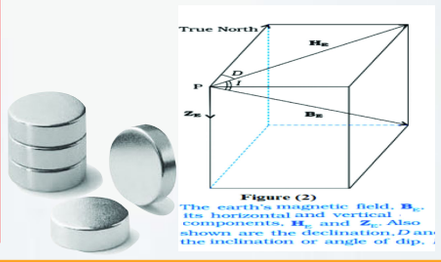
U = -mBCos Θ

Special cases:

a) $\Theta = 90^o$, U = -mBCos Θ = 0

b) $\Theta = 0$, U = -mBCos Θ = - mB (minimum energy-stable)

c) $\Theta = 180^o$, U = -mBCos Θ = mB (maximum energy-unstable)

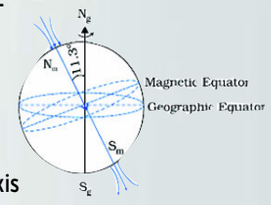


EARTH'S MAGNETISM

1 Cause of earth's magnetic field: The magnetic field is thought to arise due to electrical currents produced by convective motion of metallic fluids (consisting mostly of molten iron and nickel) in the outer core of the earth. This is known as the **dynamo effect.**

2 Geographic axis: is the line joining Earth's geographic north and south poles.

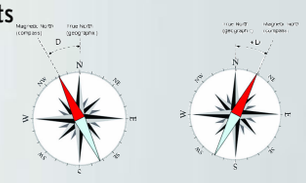
3 Magnetic axis: is the line joining the Earth's magnetic north and south poles. The angle between the geographic axis and magnetic axis is 11.3°.



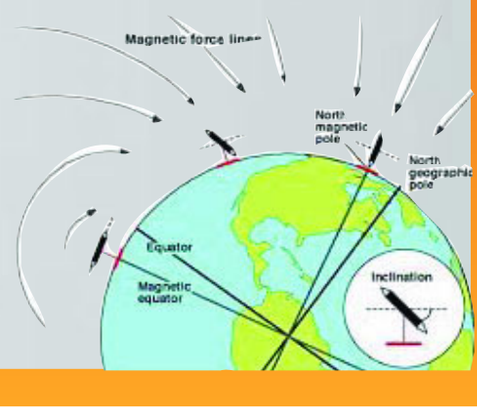
4 Geographic Meridian [longitude]: of a place is the vertical plane passing through the place and containing the Geographic axis.

5 Magnetic Meridian: of a place is the vertical plane passing through the place and containing the Magnetic axis.

6 Declination D: of a place is the angle between its geographic meridian and magnetic meridian or the angle between the true north (geographic north) and magnetic north at the place. Compass needle is used to measure D Declination increases with latitude.



7 Dip or Inclination I: of a place is the angle between the Earth's total magnetic field [B_E] and its horizontal component [H_E]. Dip needle measures Dip or Inclination.
Compass needle is free to rotate in horizontal plane (having vertical axis of rotation) and aligns along H_E whereas dip needle is free to rotate in vertical plane(having horizontal axis of rotation) and aligns along B_E.
$Z_E = B_E \sin I$; $H_E = B_E \cos I$
tan I = Z_E/H_E (Z_E is the vertical component of earth's magnetic field)



How do I fight distractions?

Distraction, for most of us, happens right when we sit to study. Suddenly we realise that the pencil is not sharp enough or the highlighters are in the bag, etc., etc. But why do we get distracted, have you ever wondered? Generally we get distracted when we are not focused and gradually our interest shifts to other things. As students it is very common. So, how do we focus? It's pretty simple, do your work on or before time, in other words do your work on the same day without spilling over to the next. Now, doing doesn't mean just doing. Do it with a sense of excitement, in reading something new or solving a problem. Do not learn it, but understand it. Then there will be no reason to get distracted.

Rithika Devulapally, class X,
Vista School, Hyderabad

Tricks to remember

TRIGONOMETRIC RATIOS

Trigonometric ratios can be learnt by using:
Oscar Had A Heap Of Apples.
Oscar/Had = (sin) = opposite / hypotenuse
A/Heap = (cos) = adjacent/hypotenuse
Of/Apples = (tan) = opposite / adjacent

$$\sin\theta = \frac{\sqrt{fingers\ above\ the\ assigned\ angle\ finger}}{2}$$

$$\cos\theta = \frac{\sqrt{fingers\ below\ the\ assigned\ angle\ finger}}{2}$$

$$\tan\theta = \frac{\sqrt{fingers\ above\ the\ assigned\ angle\ finger}}{fingers\ below\ the\ assigned\ angle\ finger}$$

Calculate the values for your trig expression using the appropriate formula.

For example: When you hold down your ring finger, there is 1 finger below your ring finger, and there are 3 fingers above your ring finger (your thumb, your index finger, and your middle finger.)

If you need sine, sin (π/6) = √1/ 2 = 1 /2.
cos (30) = √3 /2 .
tan (30) = √1/ √3 = 1/√3

TRIGONOMETRY RATIOS OF STANDARD ANGLES

"ASSIGN" THE FOLLOWING VALUES TO YOUR FINGERS.
To find the trigonometry ratio :
For example:
sin 30 or cos 30
Hold down the finger assigned for that angle.
For **example:** Hold down your ring finger for 30
Know the following formulas.

Delhi Public School, Electronic City, Bengaluru

QUICK REVISION
MATHEMATICS (ISC) **CLASS:** XII
RAGHAVAN BADRINATH, Gitanjali School, Hyderabad

KEEP TRACK OF YOUR MATH SKILLS

Q1a. If $\sqrt{1-x^2} + \sqrt{1-y^2} = a(x-y)$
Prove that $\frac{dy}{dx} = \frac{\sqrt{1-y^2}}{\sqrt{1-x^2}}$

b. Show that $\begin{vmatrix} 1-2a^2 & -a^2 & -a^2 \\ -a^2 & -1 & a^2-2a \\ -a^2 & a^2-2a & -1 \end{vmatrix} = \begin{vmatrix} 1 & a & a \\ a & 1 & a \\ a & a & 1 \end{vmatrix}^2$

(OR)

find the inverse of $\begin{bmatrix} 2 & -1 & 3 \\ 3 & 2 & 4 \\ 1 & -3 & 2 \end{bmatrix}$

c. A circular cone with semi vertical angle 45° is fixed with its axis vertical and its vertex downwards. Water is poured into the cone at the rate of $2cm^3$ per minute. Find the rate at which the depth of the water is increasing when the depth is 4cm.

d. If $y = \tan^{-1}\left(\frac{4x}{1+5x^2}\right) + \tan^{-1}\left(\frac{2+3x}{3-2x}\right)$ then find dy/dx

e. Prove that: $\int_0^{\pi/4} \log(1+\tan x)\, dx = \frac{\pi}{8}\log 2$

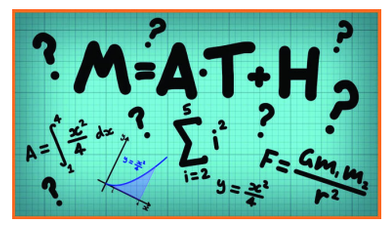
(OR)

Prove that: $\int_0^{\pi} \frac{x}{1+\sin x}\, dx = \pi$

f) Let $A = R - \{3\}$ & $B = R - \{1\}$, consider the function $f : A \rightarrow B$:
$f(x) = \frac{x-2}{x-3}$. Show that f is. one – one and onto Hence find f^{-1}. Also find x when $f^{-1}(x) = 4$

g) Solve the differential equation: Solve:
$(1-x^2)\frac{dy}{dx} + xy = \sqrt{1-x^2}$

h) If the function defined as
$f(x) = \frac{x^3-8}{x^2-3x+2}$ if $x \neq 2$
$f(x) = k$ if $x = 2$



i) A student takes his examination in four subjects A, B, C and D. He estimates his chance of passing in A as 4/5 in B as 3/4 in C as 5/6 and in D as 2/3 to qualify he must pass in A and at least two other subjects what is the probability that he qualifies.

Q2a. Evaluate as a limit of a sum:
$\int_1^4 (x^2 + 2x + e^{-x})\, dx$

(OR)

Evaluate: $\int_{\pi/4}^{\pi/2} \frac{\cos x\, dx}{(\cos\frac{x}{2} + \sin\frac{x}{2})^3}$

b) The probability of a windy day is 0.3. When a golfer makes a given shot, the Probability that a shot will land on the green is ¼ if it is a still day, and 1/8 if it is a windy day. **i)** Find the probability that a shot will land on the green. **ii)** If the ball has landed on green find the probability that it was a windy day.

c) The cost of fuel for running a bus is proportional to the square of the speed generated in km per hour. It costs Rs 48 per hour when the bus is moving at a speed of 20 km per hour what is the most economical speed if the fixed charges are Rs. 108 for an hour over and above the running charges.

d) Using matrix inversion solve: 2x+3y+z=10; x+3y–2z=4; 2x+y–3z= 4

These questions are meant for practice purpose only. Students are advised to check format, syllabus and marks for Board test papers with their teachers. Questions have been given by teachers and NIE is not responsible for them.

Tips to score in Accountancy

Accountancy has been found to be the toughest among all other core subjects of CBSE class XII commerce curriculums. A strong hold on the subject can bring the best result for students. Though the revised dates for the exam are still to be announced, I would advise students to remain focused and strategise accordingly.

PRIORITISE THE TOPICS
Questions on company accounts, cash flow statements and partnership carry 60 per cent weightage in the question paper. Pay special attention to these topics while studying. Also, don't miss out on the illustrations for ratio analysis.

REFER TO THE RIGHT BOOKS
The NCERT textbook for CBSE class XII Accountancy is your basic requirement. For a more detailed and thorough knowledge, Double Entry Book Keeping by C S Grewal or Accountancy for Class 12 by DK Goel can be good options.

FOCUS ON MCQs
If you want to score 100, always have in-depth knowledge of chapters - study the basics. Sometimes students ignore the small things but are important when it comes to MCQs, so read each topic thoroughly.

PRACTICE REGULARLY
Do not limit yourself to the exercises of the NCERT textbook and your reference books. Allot enough time to solve as many questions as possible, including sample and previous years' papers. (www.mycbseguide.in or www.learncbse.in)

FOCUS ON FORMATS
Providing proper formats, narrations and working notes are necessary to score high marks.

LEARN FORMULAE THE RIGHT WAY
Accountancy students need to go through a lot of formulae. Prep up a formula cheat-sheet for every chapter and go through it from time to time. This is an effective way to memorise them. However, before learning the formulae by heart, try to understand how and why it has been derived.

BE STRATEGIC IN FIRST 15 MINS
Utilise the first 15 minutes to read, analyse and understand the question. Reading the question paper will give you an idea about how to start the answers. Write those questions first which you are more certain of. And don't leave any question in the Board exam.

Meenu Taya,
PGT Commerce, St Soldier School, Panchkula

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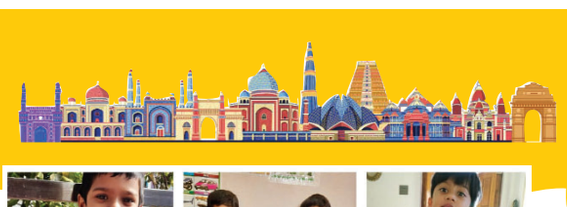
PRESERVING OUR PAST FOR THE FUTURE



Army Public School
Golconda

This world is a collage of marvels! Be it natural or man-made, it astounds one and all with the heritage sites, standing beautiful like a crown and pillar for every destination. Our human race celebrates every moment, then why not the World Heritage Day. It is said that having people without the knowledge of their past history, origin and culture is like a tree without roots. It is our bounden duty to protect, promote and preserve our rich cultural heritage. The theme for this year being "Complex Pasts: Diverse Futures".

The students of Army Public School,Golconda, presented a picture of our past through extremely captivating and knowledgeable virtual tour on the occasion of the World Heritage Day. They toured 38 Unesco World Heritage Sites and the day was dedicated to recognizing sites of historical importance, raising awareness, and stressing the need to restore and preserve them.

The event was conceived and presided by Vidya Murlidharan, principal, Army Public School Golconda who witnessed the unfolding of Virtual Tour ride along with the students.

The students were taken on an exciting ride through a time capsule encompassing the extravagant heritage of the planet. The day promotes cultural importance and sites like the Konark Sun Temple, Hampi, Ajanta and Ellora Caves, Taj Mahal and Harappa Civilization added to the diversity of India. Similarly, in the nature space, the Kaziranga National Park housing the One Horned Rhinos was an enigmatic affair. In line with the spirit of the event, some international sites like Eiffel Tower and Egyptian Mummies were also covered.

The virtual tour was conducted by the Social Studies Dept, where Sunnu (PGT) and Raju Palla (PGT) from the Senior wing were the main presenters who illuminated the online ambience with a splendid view of the culture and natural heritage of the world. Students were in awe of the fine architecture and details of craftsmanship of that era.

Moreover, the session came as a blessing to them amid the Covid-19 crisis. The highlight of the event was the Q&A session where inquisitiveness of young geniuses was at display. It was a unique and enthralling experience for them.

Delhi Public School
Mahendra Hills

Delhi Public School, Mahendra Hills celebrated the World Heritage Day with an aim to raise an awareness among students about the need to preserve our heritage sites and also the efforts required to protect, conserve and draw attention towards it.

A special assembly was organised where students were told about the meaning of heritage, its importance and the need of preservation. A beautiful video was screened on the seven incredible and famous heritage sites of the world.

Students enjoyed the activities of making heritage monuments bookmark and a travel brochure on a famous monument and participated wholeheartedly.

Sunitha Rao, principal, stressed on the need to preserve and cherish monuments as a picture of the past. The objective behind conducting this special assembly was to enlighten students about the value and significance the world's heritage holds. Children were also familiarised with the world's diverse culture.

Delhi Public School **Nacharam**

The culture and heritage of any country is a memorabilia of its glorious past. The pre-primary wing of DPS Nacharam celebrated the World Heritage Day to help students explore and know more about the world's magnificent monuments and heritage.

The World Heritage Day is observed on April 18 every year with an aim to increase awareness about the importance of protecting culture and diversity.

The learners were encouraged to make a spin drum toy craft with a picture of a monument on it and speak about monuments around the world.

The facilitators explained that the day is celebrated to preserve the rich heritage given to us by our ancestors and also to ensure the protection of national and cultural heritage and provide any emergency assistance for sites in danger. The students were made a part of this day as they are our future and they ought to shake hands with the past!

BABY DAYS

With our faces a picture of sobriety,
And our minds of carefree purity;
We conduct naughty deeds with ease,
In spite of many a whacking indeed;

The sight of tiny legs on bed,
Fully satisfied and fed;
Is such a cute glimpse,
Of little legs and baby limbs;

But oh! There on the bed a big patch of pee,
Done by my little sister of a baby;
But oh! The fun filled days that pass,
These days too shall go alas!

CLICK HERE TO READ ONLINE

ISHIKA PADHY, class V, Bharatiya Vidya Bhavan's Public School, Jubilee Hills

CORONA, CORONA...

(To the tune of Twinkle, Twinkle Little Star)

Corona, Corona, day and night,
He's got spikes upon his back.
When he comes, sickness I see.
He's as scary as can be!
Corona, Corona, day and night,
He's got spikes upon his back.
Corona, Corona, tiny and invisible,
Enters the lungs through the nose.
His body is tiny but very strong,
Don't be scared and maintain social distance!
Corona, Corona, tiny and invisible,
Enters the lungs through the nose.
Corona, Corona, round and small,
The thinnest spikes you've ever seen.
His body is small, his mouth is wide,
Get too close and he will be inside!
Corona, Corona, round and small,
The thinnest spikes you've ever seen.
Corona, Corona, nasty and strong,
Touch spreads out this virus and we'll die.
He eats cells in our bodies,
His invisibility helps him reach us with ease!
Corona, Corona, nasty and strong,
Touch spreads out this virus and we'll die.
Corona, Corona, pandemic and dangerous,
Stay at home and be safe.
Wear a mask when you're out.
Wash your hands fre-quent-ly!
Corona, Corona pandemic and dangerous,
Stay at home and be safe.

CLICK HERE TO READ ONLINE

SAHITHI SAI SRI GUDLA, class VII, FIITJEE World School

BOOSTING COGNITIVE SKILLS WITH GOOD HANDWRITING

Gitanjali Devashray
Hyderabad

The Father of the Nation, Mahatma Gandhi, had once stated, "I saw that bad handwriting should be regarded as a sign of an imperfect education."

At Gitanjali Devashray we consider good handwriting to be a reflection of learning. Hence a lot of emphasis is laid upon clarity, legibility and style of a student's writing.

Handwriting activates the brain more than keyboarding. This is because it involves more complex motor and cognitive skills. Good handwriting also contributes to reading fluency because it activates visual perception of letters.

It is most definitely a predictor of success in all subjects, because good handwriting has a positive impact on grades.

With the purpose of motivating the children to improve their penmanship, the English Department conducted a 'Handwriting Contest' for students of Classes I to VIII.

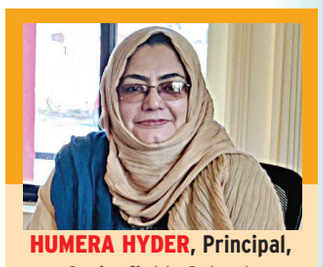
The English language teachers assigned an age-appropriate passage for the pupils to pen. The students' handwriting was judged on the basis of spacing between words, consistency of letters, legibility, neatness and accuracy. The enthusiastic participation by the students in this competition was heartening.

Legible writing that can be produced comfortably, at speed and with little conscious effort allows a child to attend to the higher-level aspects of writing composition and content.

Handwriting contributes to better writers. Children who have mastered it are better, more creative writers.

FROM THE PRINCIPAL'S DESK

ADAPTING TO THE NEW CHANGE



HUMERA HYDER, Principal, Springfields School, Tolichowki

Pandemic in 2020 turned our lives upside down and changed not just the way we live and work but also how we think and behave. Every part of the world was affected, and every aspect of life tasted its impact. Our everyday routines changed, and everything had to be replanned. While we stop and ponder, we cannot help but realise that we used to take things for granted.

Teachers, our front-line warriors, had to learn, unlearn, and relearn things and adapt to the change. Initially there were technical glitches but there is always hope when we move ahead with a positive mindset. From offline to online, from real to virtual, classroom to home room, from blackboard to jam boards, keep quiet to mute, from written test to Google form, the journey was difficult but they didn't give up.

Anxious parents became real partners in education; with their support the impossible became possible.

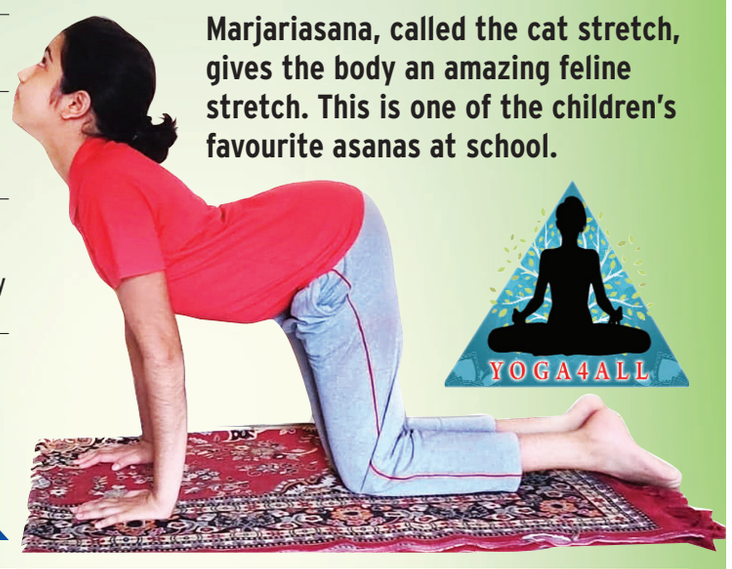
There are some life lessons to take away from this pandemic; we need to hold on to our values and roots. The difficult times showed us the truth about life and about the people around us. Our relationships or friendships fizzled out or reignited. The wonderful world of technology opened the doors for education and connected everyone whether next door or miles apart.

We need to reaffirm ourselves 'Never stop learning.'

One of the great joys of life is to learn new skills, new languages, new recipes, new crafts, new sports and new cultures. 2020 has reinforced the reality that anything can happen at a moment's notice. When the world stopped around us, we explored the world through Internet. We experimented, practiced and created. This tough time has taught us that the adversity we face and the resilience we respond with has the power to shape our lives. With each challenge, we are given the opportunity to persevere, learn and grow into stronger, more compassionate and more grateful human beings.

MARJARIASANA

Marjariasana, called the cat stretch, gives the body an amazing feline stretch. This is one of the children's favourite asanas at school.



BENEFITS

1. It stretches, strengthens, and adds flexibility to the spine.
2. Both your shoulders and wrists will be strengthened.
3. The digestive organs are massaged and activated, and therefore, the process is improved.
4. This asana helps to tone the abdomen while getting rid of unnecessary pockets of fat, slowly but surely.

PRECAUTIONS

Avoid this asana if you have back or neck issues.

INSTRUCTIONS

Step 1 Stand on all fours, such that your back forms a table top and your feet and hands form its legs.

Step 2 Your arms should be perpendicular to the floor, and your hands should be placed flat on the floor. Palms, knees and feet should be placed hip-width apart. The left palm, left knee, and left foot should be in a straight line when seen from the side and same with the right palm, knee and foot.

Step 3 Look straight ahead.

Step 4 Inhale and raise your chin as you tilt your head backwards. Push your navel down and raise your tailbone. Compress your buttocks.

Step 5 Hold the pose for a few breaths. Breathe long and deep.

Step 6 This asana is a combination of two movements. The countermovement is as follows: Exhale and drop your chin to your chest as you arch your back and relax your buttocks.

Step 7 Hold this position for a few breaths. Then, go back to the tabletop position.

Step 8 Do the movement and countermovement about five to six times before you come to a halt.

MADHAVI SHANKAR, Yoga Teacher, Sishu Griha Senior School, Bengaluru

THE EXEMPLARY LIFE OF 'PEOPLE'S PRESIDENT'

Pic: TOI

Books are vehicles of knowledge which travel from generation to generation. And after reading APJ Abdul Kalam's autobiography 'Wings of Fire', I was inspired by this great aerospace scientist. The story depicts the struggle, hard work and success of a common man.

Born into a humble family, Kalam's parents taught him the value of education from a very young age. Though he was an average student in school, young Kalam possessed a strong desire to learn and was very hardworking. He loved mathematics and spent hours studying the subject. When he couldn't fulfill his dream of becoming a fighter pilot he continued his education and went on to join the Aeronautical Development Establishment as a scientist. He worked under eminent space scientist Vikram Sarabhai, was transferred to the ISRO where he became the project head of the country's foremost Satellite Launch Vehicle (SLV-III). He played a key role in carrying out Pokhran-II nuclear tests by India.

INSPIRING ICONS
APJ ABDUL KALAM

As a technical visionary, he made several recommendations in the fields of technological innovations, agriculture, and nuclear energy to make India a developed nation. In 2002, he was elected as the President of India, and during his tenure his interactions and working style earned him the title of 'People's President'. He devoted all his life for the country and welfare of people. His story is a shinning example for all those who want to achieve their goals in life.

TEJASVEER SINGH SAINI, class IX, St John's High School, Chandigarh

"Fearless doesn't mean careless. There is a thin line between fearless and careless. I think we need to play fearless."
Smriti Mandhana, Indian cricketer

RCB NEED TO SHAKE OFF LOSS, START AFRESH

Royal Challengers Bangalore team

MATCH 22

DC vs RCB

Tuesday, April 27, 2021
7:30 pm ■ Ahmedabad

Seeing the loss in their previous game as a blip, the Virat Kohli-led Royal Challengers Bangalore will have to shrug off their 69-runs thrashing by CSK and start afresh to beat the formidable Delhi Capitals in the IPL on Tuesday

Openers need to set base

- For the RCB, it will be important that the openers, the in-form Devdutt Padikkal (171 runs) and Kohli (151 runs), continue to provide a solid start at the Narendra Modi stadium. But the opening duo must get the much-needed support from the middle-order, which crumbled against CSK.
- The likes of Glenn Maxwell (198 runs), Ab de Villiers (129 runs), and the misfiring all-rounder Washington Sundar (25 runs), will have to perform in unison against a strong Delhi attack. Australian Maxwell did justify his high price tag in the first few matches and would be raring to go once again.

Bowlers must contain DC

- The RCB bowlers will have to forget the hammering received at the hands of the CSK batters, especially league's leading wicket-taker Harshal Patel, who was taken apart by Ravindra Jadeja, as he conceded 37 runs in his final over. Pacers Mohammed Siraj and Kyle Jamieson will have to step up and deliver while spinners Yuzvendra Chahal and Washington Sundar, will also have to bowl tightly to contain a strong DC batting-line, full of hard-hitters. RCB could also be tempted to play left-arm tweaker Shahbaz Ahmed in place of either Navdeep Saini or Dan Christian, as the track could be conducive for the spinners.

ASHWIN TAKES BREAK FROM IPL, AUS' ZAMPA, RICHARDSON HEAD BACK HOME

Senior Indian off-spinner Ravichandran Ashwin has decided to take a break from the ongoing IPL, saying that his family is currently "putting up a fight against COVID-19" and he wants to support them. The 34-year-old is competing for the Delhi Capitals this season and hopes to return to the side "if things go in the right direction". "My family and extended family are putting up a fight against #COVID19 and I want to support them during these tough times," Ashwin posted on Twitter.

Meanwhile, Australia's leg-spinner Adam Zampa and fast bowler Kane Richardson have joined compatriot Andrew Tye in cutting short their IPL season and heading home as India struggles with a massive surge in COVID-19 cases. AGENCIES

DC bowling in good place

- Delhi's confidence will be boosted by their thrilling super over win against SRH on Sunday. Their opener and tournament's leading run-scorer Shikhar Dhawan (259 runs), would be eager to carry forward his fine form, while his opening partner Prithvi Shaw (166 runs), would be looking to get more runs under his belt. DC boast of a strong middle-order comprising skipper Rishabh Pant (125 runs), Australians Steve Smith and Marcus Stoinis and Shimron Hetmyer, who can be highly destructive on their day. In case the openers fail, the onus will be on Pant and Smith to steer the innings.

Onus on the spinners

- Delhi will miss the services of ace off-spinner Ravichandran Ashwin, who has left the team to support his family in the fight against COVID-19. In his absence, left-arm spinner Axar Patel and experienced leg-spinner Amit Mishra, who had wreaked havoc against Mumbai Indians, will need to shoulder greater responsibility. Delhi is unlikely to tinker with their pace attack, as Avesh Khan, with 11 wickets from five games has been impressive and South African Kagiso Rabada can do the damage early. The team management can play Lalit Yadav, who bowls off-spin and can also bat, in place of Ashwin, instead of going in for a pacer.

Photo: PTI

INDIAN ARCHERS HIT THE MARK WITH INDIVIDUAL, TEAM GOLDS

Indian archers Atanu Das and Deepika Kumari won the recurve men's and women's individual gold medals to cap an incredible first stage of the 2021 Archery World Cup in Guatemala City on Sunday

Deepika Kumari

Photos: GETTY IMAGES

While Deepika won her third World Cup gold medal, Atanu secured the first international gold of his career in the tournament. Atanu defeated Spain's Daniel Castro in the latter's international circuit debut. The Indian archer shot sets of 28, 29, and a closing excellent 30 points in a four-set victory. "It feels amazing. It's like dreams are coming true. I've worked so hard for so many years, and now this is paying off," the World Archery website quoted Atanu as saying. "It's beautiful. It's a big boost for me. The Olympics are this year, and I'm working in the right way," he added.

Deepika Kumari and Atanu Das of India show off their medals from Recurve finals during the Archery World Cup 2021

Both Indian archers have now automatically qualified for this season's Archery World Cup Final. The Indian women's team defeated Mexico 5-4 (27-26) in the final to bag the gold medal for the country. The Indian trio shot 27 to edge out their Mexican rivals by one point and claim their first World Cup team gold after seven years. This was India's fifth recurve women's team gold in World Cup, having won in Shanghai- 2011, Medellin-2013, Wroclaw-2013, and 2014 previously. In another match, the Indian mixed recurve team of Atanu and Ankita Bhakat won the bronze medal after a 6-2 victory over the US. ANI

TREBLE-CHASING MAN CITY SECURE LEAGUE CUP

Photo: REUTERS

Manchester City players celebrate with the trophy

Part one of Manchester City's treble chase has been ticked off. Aymeric Laporte headed in Kevin De Bruyne's free kick in the 82nd minute to give City a 1-0 victory over Tottenham on Sunday that clinched the League Cup for a fourth successive season. City dominated the final, with 21 attempts on goal to Tottenham's two in a victory that showed the depth of Pep Guardiola's squad.

"We went out to play at an incredible level, with incredible quality," the City manager said. "I'm so delighted for the guys and, for the guys who didn't play." It was a good day all round for City after Manchester United's 0-0 draw with Leeds earlier in the afternoon put the leaders 10 points ahead and two wins away from reclaiming the Premier League title. AP

QUIZ TIME!

Q1. The Mullagh Medal is a new award first given out in 2020. Who was its inaugural winner?
a) Rohit Sharma ❑ b) Tim Paine ❑
c) Ajinkya Rahane ❑ d) Rishabh Pant ❑

Q2. Which cricketer has won the most player of the series awards in tests?
a) Muttiah Muralitharan ❑ b) Shane Warne ❑
c) Richard Hadlee ❑ d) Jacques Kallis ❑

Q3. Which cricketer recently broke Virat Kohli's record to become the fastest batsman to reach 2000 runs in T20I format?
a) David Warner ❑ b) Babar Azam ❑
c) Ben Stokes ❑ d) Kane Williamson ❑

Q4. Which Indian player became the 7th batsman to hit 200 sixes in IPL?
a) Suresh Raina ❑ b) KL Rahul ❑
c) Sanju Samson ❑ d) Dinesh Karthik ❑

Q5. Which of these English Premier League clubs was not one of the founding members of the breakaway European Super League?
a) Tottenham ❑ b) Arsenal ❑
c) Everton ❑ d) Manchester City ❑

Q6. Australian Open champion Naomi Osaka's 23-match winning streak ended this week, denying her the world No 1 spot. Who beat her 6-0 6-4 in the Miami Open quarterfinals?

Naomi Osaka

Photo: GETTY IMAGES

a) Ashleigh Barty ❑ b) Sara Sorribes Tormo ❑
c) Bianca Andreescu ❑ d) Maria Sakkari ❑

Q7. Trent Boult and which Black Caps team-mate are currently in the top three in the one-day international world bowling rankings?
a) Matt Henry ❑ b) Ish Sodhi ❑
c) Tim Southee ❑ d) Mitchell Santner ❑

Q8. Which of the following English Premier League football teams is highest placed on the current ladder?
a) Tottenham Hotspur ❑ b) Man City ❑
c) Chelsea ❑ d) Liverpool ❑

Q9. Which of these cities will host matches for the 2023 Fifa Women's World Cup in Australia and New Zealand?
a) Tauranga ❑ b) Napier ❑
c) Hamilton ❑ d) Whangarei ❑

Q10. Lauren Bruce has been selected to compete in which sport for New Zealand at the Tokyo Olympics?
a) Heptathlon ❑ b) Discus throw ❑
c) Javelin throw ❑ d) Hammer throw ❑

ANSWERS: 1. c. Ajinkya Rahane
2. a. Muttiah Muralitharan 3. b. Babar Azam
4. a. Suresh Raina 5. c. Everton
6. d. Maria Sakkari 7. a. Matt Henry
8. b. Man City 9. c. Hamilton 10. d. Hammer throw