



THE TIMES OF INDIA

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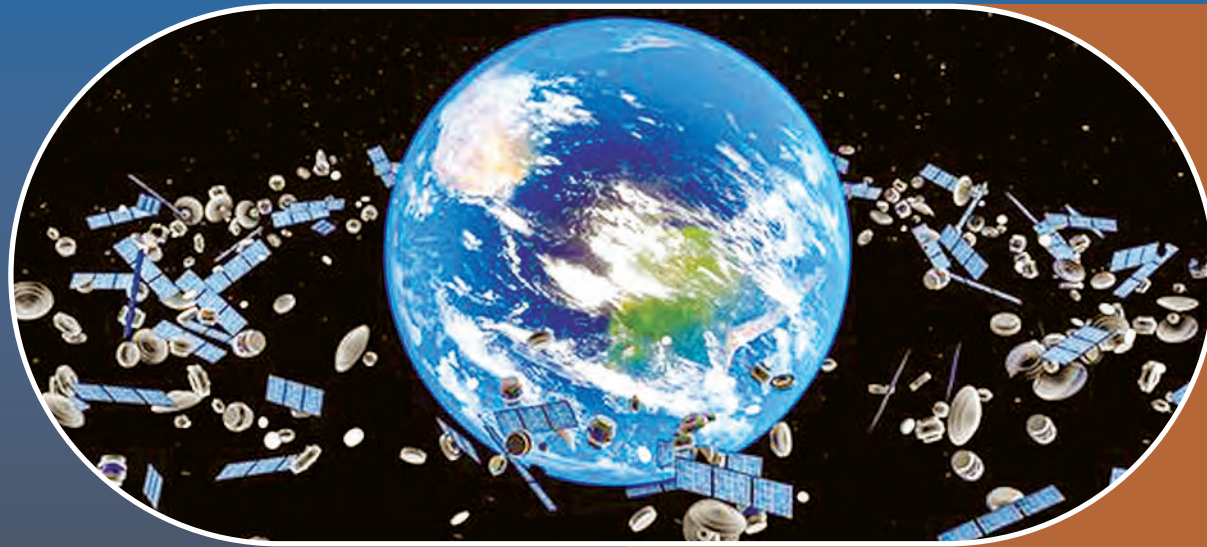
STUDENT EDITION

FRIDAY, AUGUST 7, 2020



WEB EDITION

Scientists find way to track SPACE JUNK in daylight



Scientists have discovered a way to detect the space debris even in daylight hours, potentially helping satellites to avoid the ever-growing cloud of junk orbiting the planet. According to scientists, the debris can now be detected from the ground, using lasers. Until now, this method only worked for a few hours around twilight, when the detection station on the Earth is in the dark, and the debris still illuminated by the sun. The researchers extended the window in which the space junk is visible, using a combination of a telescopic detector and filter to increase the contrast of objects as they appear against the sky during the day. They also developed a real-time target detection software system that predicts when certain objects could be observable. Overall, the new technique could increase the observation time of the space junk from the Earth—from six to 22 hours a day.

SPACE JUNK: Space debris, also called as space junk, is an artificial material that orbits the Earth as unfunctional objects

THE SIZE: Defunct rockets, satellites and spacecraft parts continue to orbit the Earth after they are discarded. So, these materials can be as large as a discarded rocketstage or as small as a microscopic chip of paint. Much of the debris is in the low Earth orbit, within 2,000 km of the Earth's surface; however, some debris can be found in the geostationary orbit, 35,786 km above the Equator

Till date, the United States Space Surveillance Network has tracked more than 14,000 pieces of space debris, larger than 10 cm across. It is estimated that there are about 200,000 pieces between 1 and 10 cm across, and that there could be millions of pieces smaller than 1 cm

POTENTIAL HAZARD

➤ Because of the high speeds at which the objects orbit the Earth, a collision with even a small piece of space debris can damage a spacecraft, warn experts

➤ The amount of debris in space threatens both crewed and uncrewed spaceflight. **The risk of a catastrophic collision of a space shuttle with a piece of space debris is 1 in 300.**

➤ On July 24, 1996, the first collision between an operational satellite and a piece of space debris took place, when a fragment from

the upper stage of a European Ariane rocket collided with Cerise, a French microsatellite. Cerise was damaged but continued to function

➤ The first collision that destroyed an operational satellite happened on February 10, 2009, when Iridium 33, a communications satellite owned by the American company, Motorola, collided with Cosmos 2251, an inactive Russian military communications satellite, about 760 km above northern Siberia, shattering both the satellites

WHAT IS KESSLER SYNDROME?

➤ Donald Kessler, a NASA scientist, has theorised that the continuous collisions of man-made objects in the space will potentially destroy the telecommunications and keep humanity trapped on the Earth. His prediction is famously referred to as the Kessler syndrome



DID YOU KNOW?

A piece of space debris can reach the speeds of 6.9 to 8 kilometres per second. That's nearly 7 times faster than a bullet, and just about the equivalent of being hit by a bowling ball moving at 482 km per hour. According to the National Oceanic and Atmospheric Administration, around 200 - 400 space debris enter the Earth's atmosphere every year

Quote unquote

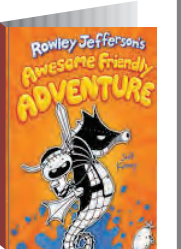
Now, we face a generational catastrophe that could waste untold human potential, undermine decades of progress, and exacerbate entrenched inequalities. Once local transmission of Covid-19 is under control, getting students back to schools and learning institutions as safely as possible must be a top priority. Consultation with parents, carers, teachers and young people is fundamental
ANTONIO GUTERRES, secretary general, UN

BOOK LAUNCH



ROWLEY JEFFERSON'S AWESOME FRIENDLY ADVENTURE

From #1 New York Times bestselling author - Jeff Kinney, comes an entirely new, awesome, friendly, and truly fantastic fantasy quest, 'Rowley Jefferson's Awesome Friendly Adventure'; the second novel in his series of 'Diary of an Awesome Friendly Kid'. Published by Puffin Books, this epic adventure has evolved from the imagination of Wimpy Kid's Rowley Jefferson, and is bound to take all the readers on an escapade like never before!



UNEARTHED: THE ENVIRONMENTAL HISTORY OF INDEPENDENT INDIA

BY MEGHAA GUPTA

'Unearthed' is the first-ever chronological narrative that traces the environmental impact of the key historical events and the environmental events that made history - from the Green Revolution to Bhopal gas tragedy, from Chennai's water crisis to smog in Delhi, from clean energy to waste in space. It is replete with little-known facts, trivia boxes, infographics, black and white illustrations and profiles of people working in this field, all of which complements this easy-to-read, comprehensive book to follow and broaden the EVS and general syllabus taught in schools.



EDUCATION

NCERT to work on new National Curriculum Framework post NEP 2020

The new National Education Policy (NEP) 2020 comes after a gap of 34 years. It will replace the previous policy, formulated in 1986. The policy recommendations will be implemented in phases. The restructuring will also see a revision in the syllabus and content, as the National Council of Educational Research and Training (NCERT) will soon work on the new National Curriculum Framework (NCF). "The MHRD will now appoint a steering committee that will work on the new NCF in line with the latest policy. The committee will prepare two frameworks - Early Childhood Learning and Development Framework and School Education Framework, says Hrushikesh Senapaty, director, NCERT.



➤ The NCF will focus on the pedagogy for the holistic development of students to equip them "with the key 21st century skills", says Senapaty. There will be reduction in the curricular content to enhance their essential learning and critical thinking, and greater focus will be on experiential learning. Students will have increased flexibility and choice of subjects, as there will be no rigid separation between arts and sciences, between curricular and extracurricular activities, between vocational and academic streams, he adds ➤ The framework that is expected to be out within the next seven months, will define the learning outcomes and the corresponding syllabus that ensures continuous learning and assessment. "With the introduction of vocational courses, such as coding from class VI onwards, new content will also be integrated," he states.

ALWAYS WANTED TO BE AN IAS OFFICER: CS WOMAN TOPPER

IRS officer Pratibha Verma, who topped among the women candidates in the prestigious civil services exam, has attributed her success to **hardwork and determination to stick to a schedule**, despite being unwell for some time. Youngest among the three siblings, Verma ranked third in the exam. She got 489th rank in the civil services exam last year. Verma, who did her B.Tech from IIT-Delhi, and is an officer of Indian Revenue Service (Income Tax), said, she always wanted to become an IAS officer, since her childhood.



GET INSPIRED

Imbibe two key elements - set a target and work with dedication to achieve it
—PRATIBHA VERMA, IAS



FOR A CAUSE

MARK RUFFALO SHARES A PICTURE COVERING HIS FACE WITH A HANDKERCHIEF TO RAISE COVID-19 AWARENESS

With the rise in Covid-19 cases in the world, American actor-producer, Mark Ruffalo has urged the people to wear masks. The actor also said that he wears a mask because he cares about the other people around him. The 52-year-old star posted a monochromatic picture of himself on Instagram, wherein he is seen with his face covered with a white handkerchief. It shielded his nose and mouth as he looks into the camera.

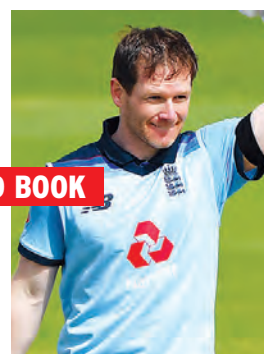
➤ Many celebrities, including actors Miley Cyrus, Tom Hanks, Rita Wilson and Jennifer Aniston, have also commented on the need to wear masks to prevent the spread of coronavirus

NEWS IN BRIEF

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EOIN MORGAN MOVES PAST MS DHONI TO RECORD MOST SIXES AS CAPTAIN

England's captain Eoin Morgan has broken the record for the most sixes in international cricket as



IN THE RECORD BOOK

a captain. Morgan hit his **212th six in international cricket in the 3rd ODI against Ireland in Southampton.**

➤ Morgan went past MS Dhoni's tally of 211 sixes. The England captain needed only 163 matches to get past Dhoni's tally. The former India captain had taken 332 international matches for 211 sixes. ➤ Ricky Ponting is at the 3rd spot on the list of captains with most international sixes - 171 in 324 matches

West Indies great Chris Gayle holds the record for most sixes in an international career

TOP FOODS FOR KIDS' EYE HEALTH

The pandemic-induced lockdown, restricted outings has led to more screen time for the children, with online classes and leisure time being spent on playing video games, web games, etc. This situation has led to dry eyes and other eye health-related problems in kids. To keep your eyes healthy, include these foods in your daily diet.



HEALTH

CHEESE AND EGGS: Both eggs and cheese are rich in Vitamin A, which means good eye health. Egg yolk is rich in lutein, again good for the eyes. So, have omelette, half-fried or sunny side up, and ask your parents to add some cheese on top.

FISH WITH CHIPS: Fish varieties, such as salmon and sardines, are a great source of omega 3 fatty acids. This snack combo is also delicious and fun for those evenings, when you want to munch something, while watching TV.

CHOCOLATE AND ALMONDS: Add a punch of nutrition to chocolates by pairing it with few almonds - it's rich in Vitamin E, and makes for a healthy midday snack

SEASONAL VEGGIES: Vegetables are rich in nutrients, such as vitamin A, Vitamin C and Vitamin K - all of these are good for the health of your eyes.

On 'Mughal-e-Azam's' 60th anniversary, film's screenplay enters OSCARS LIBRARY

Bollywood classic, 'Mughal-e-Azam' celebrated its 60th anniversary as director K Asif's son Akbar Asif presented the screenplay of the film to the Oscars library in Hollywood.

ENTERTAINMENT

Akbar Asif, the UK-based son of the late director, said, he presented the screenplay to the Academy Awards to mark the anniversary of his father's historical epic, starring Prithviraj Kapoor, Dilip Kumar and Madhubala.



DID YOU KNOW?

Filmmakers can submit their films to the Oscars library by filling up a form. However, movies released in Los Angeles are automatically invited to be a part of the library

✧ Three versions of the legendary screenplay - in Hindi, Roman and English - are now available at the Margaret Herrick Library, a world-renowned reference and research collection of the Academy, devoted to the history and development of the motion picture as an art form and an industry

✧ The screenplay of the film, which hit the screens in India on August 5, 1960, was crafted by a team comprising Aman, Kamal Amrohi, Wajahat Mirza, Ehsan Rizvi and director K Asif

✧ 'Mughal-e-Azam' went on to break every box office record, and is still considered as one of the highest-grossing Bollywood films of all time ✧ In 2004, the film became the first full-length Indian feature film colourised for a theatrical re-release ✧ In 2013, to mark the 100th anniversary of the Indian cinema, it was declared as the greatest Bollywood film ever made ✧ In 2016, in a historic moment, a live musical, based on the film was staged by one of the biggest theatre productions

