

TODAY'S

Biodegradable is not what you think it is ➤ Try your number skills with Mathdoku



Students share their travel diaries Missing school? Relive your school days



A look at some high profile players, who are struggling to find form



STUDENT EDITION

WEDNESDAY, OCTOBER 7, 2020



**3 SCIENTISTS SHARE** 

**NOBEL PHYSICS PRIZE** FOR COSMOLOGY FINDS

THE 2020 NOBEL PRIZE FOR

PHYSICS has been awarded to

Roger Penrose for black hole dis-

covery, and Reinhard Genzel and

Andrea Ghez for discovering "a

supermassive compact object at

the centre of our galaxy".

## **CLICK HERE: PAGE 1 AND 2**

## **#BIRDWATCH**

'ell, it's not about watching birds. Twitter is all set to launch a feature called 'Birdwatch,' which according to the company is an attempt to address misinformation across its platform by providing more context for the tweets in the form of notes.

## TRENDING

- > According to a report by TechCrunch, now tweets can be added to Birdwatch, meaning flagged for moderation, from the tweet's drop-down menu, where other blocking and reporting tools are
- found > A small binocular icon will also appear on the tweets published to the Twitter
- timeline > When the button is clicked, users will be directed to a screen, where they can
- view the tweet's history of notes > Based on the screenshots of Birdwatch, a new tab called 'Birdwatch Notes' will be added to the Twitter's sidebar navigation, alongside other existing features, like lists, topics, bookmarks and moments

# SOPs FOR SCHOOLS' REOPENING: Cleanliness, security, social distancing

he education ministry has released guidelines for the reopening of schools from October 15, which include thorough cleaning and disinfection of premises, flexibility in attendance, no assessment for up to three weeks, and ensuring smooth transition from home-based schooling during the Covid-19 lockdown to formal schooling. It has also asked states and union territories to frame their own Standard Operating Procedures (SOPs) for health and safety precautions based on their local requirements.

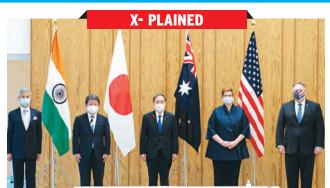
Schools can implement re-adjusted school calendar and redesigned Annual Curriculum Plan (ACP), remedial classes or conduct back to school campaign, among other steps



Schools must arrange and implement thorough cleaning and disinfecting of all areas, furniture, equipment, stationery, storage places, water tanks, kitchens, canteen, washroom, laboratories and libraries on school campus, and ensure air flow in indoor space, the ministry said >Students may attend schools only with the written consent of parents Students may opt for online classes rather than physically attend school ➤There shall be no assessment up to 2-3 weeks of school reopening, and use of online learning will continue

Foreign ministers from WHAI: four Indo-Pacific nations – India, US, Japan and Australia known as the 'Quad group', held talks in Tokyo on Tuesday to counter China's growing assertiveness in the region.

WHY. All the four Quad members have an ongoing tiff with Chi-



na. Tensions between the US and China have escalated over issues like the coronavirus, trade, technology, Hong Kong, Taiwan and human rights. India and China are locked in a tense military stand-off in eastern Ladakh. Relations between Australia and China have also deteriorated in recent months. Japan is concerned about China's claim to the Japanese-controlled Senkaku Islands

Also known as the quadrilateral security dialogue, Quad was first mooted by the former Japanese PM Shinzo Abe in 2007. The first meeting was held on November 12, 2017

# NOVAK DJOKOVIC

op seed and World No. 1 Novak Djokovic continued his bid to become the first man in half a century to win all four Grand Slam titles twice, dispatching 15th seed Karen Khachanov in straight sets 6-4,6-3, 6-3. The Serb has reached the French Open quarterfinals for the 11th consecutive year, dropping just 25 games en route.



## Quote unquote

We want India to become a global hub for Artificial Intelligence. Many Indians are already working on this. I



delight the world Narendra Modi, PM at the RAISE

2020 virtual summit

## UNRAVELLED

Choosing to handwrite over keyboard use yields best learning, memory: Study

hen writing by hand, both children and adults learn more and remember better, ies. However, a new study has revealed that choosing to handwrite over keyboard use yields the best learning and



→ According to researchers, the brain produces electrical impulses, when it is active. The sensors in the electrodes are very sensitive and picks up the electrical activity that takes place in the brain → Handwriting gives the brain more hooks to hang on to the memories →Writing by hand creates much more activity in the sensorimotor parts of the brain A lot of senses are activated by pressing the pen on paper, seeing the letters you write and hearing the sound you make while writing. These sensory experiences create contact between different parts of the brain and open the brain up for learning, thus helping us to learn better and remember better

**NEW BATMAN STORY TO DEBUT** 

**ON SPOTIFY PODCAST IN 2021** 

service, the producers

announced. Called 'Batman Unburied,' the series

world of narrative podcasts.

"the darker aspects of Bruce

➤ David S Goyer, co-writer of

**Spotify and Warner Bros** 

the 2005 movie, 'Batman

Begins' and 2016's

Dawn of Justice,'

has developed

the story

'Batman v Superman:

➤ The Batman series will explore

Wayne's psychology," according to

is the first being developed to bring

DC Comics' superheroes to the

n original story about Batman's alter-ego

Bruce Wayne will debut next year as a

podcast series on the Spotify streaming

ENTERTAINMENT

## **NEW NASA PROJECT ALLOWS PUBLIC TO SEARCH FOR NEW WORLDS**



ou can now help discover new worlds beyond our solar system from the comfort of your home, thanks to a new citizen science platform called Planet Patrol launched by NASA. The Planet Patrol platform allows members of the public to collaborate with professional astronomers as they sort through a stockpile of star-studded images collected by NASA's Transiting Exoplanet Survey Satellite (TESS). Volunteers will help determine which TESS snapshots include signals from potential planets and which ones show planet impersonators, NASA said.

- ➤ TESS uses its four cameras to take full images of one patch of sky, called a sector, every 10 minutes for a month at a time
- ➤ This long stare allows TESS to see when planets pass in front of their stars, or transit, and dim their light

# NEWS BRIEF CLICK HERE MORE

**NIGHTS WARMING FASTER THAN DAYS, SHOWS RESEARCH** 

lobal warming is affecting daytime and nighttime temperatures differently, and greater nighttime warming is becoming more common than greater daytime warming worldwide, shows a new research.

- According to scientists, who studied warming from 1983 to 2017, there was a difference in mean annual temperature of more than 0.25°C between daytime and night-time warming in over half of the global land surface
- Days warmed more quickly in some locations, and nights did in others, but the total area of disproportionately greater night time warming was more than twice as large, claimed the researchers
- The study has shown that this phenomenon termed "warming asymmetry" has been driven primarily by changing levels of cloud cover
- Increased cloud cover cools the surface during the day and retains the warmth during the night, leading to greater night time warming. Whereas, decreasing cloud cover allows more warmth to reach the surface during the day, but that warmth is lost at night, believe the researchers

lowed 1080p images.

Krieger posted the picture of

South Beach Harbour at Pier 38

## THE IMPACT

- > Species that are only active at night (nocturnal) or during the day will be particularly affected, scientists have warned
- > Besides, scientists have said that increased night-time warming has led to less vegetation growth, where it rained more, likely due to the increased cloud cover blocking the sun. Whereas, vegetation growth was limited by water availability due to less rainfall, where the days warmed more

As the world's most-loved photo-sharing app turned 10 recently, here's some interesting facts on it...

nstagram, which was created by Kevin Systrom and Mike **Krieger**, was originally launched on iOS in 2010. It came to Android two years later. There's a Windows and Fire OS version of In-

Initially, Instagram allowed content to be framed in a square (1:1) aspect ratio with 640 pixels to match the display width of the iPhone. Only in 2015, Instagram



eased the restrictions and alon July 16, 2010, much before the app's official release on October Mike Krieger uploaded 6, later that year. the first picture on Insta-Facebook bought Instagram **gram**. It was reportedly taken at \$1 billion in 2012. At that time, from Dogpatch labs incubator, Instagram had just 13 employees. a cheap rented office space.

Now, Instagram is valued well over \$100 billion, and is about one-fifth of Facebook's market cap.

### fume brand Toli, the scent sports subtle notes of a rotten egg and cleaning products on a heady base of bitter almonds—hints of hydrogen sulphide and ammonia, that give way to the fragrance of hydrogen cyanide. The scent, old You? according to the company, will allow wearers to be transported to a planet that no human has directly experienced – or likely ever will, given its inhospitable nature

THESE COMPOUNDS ARE ALL FOUND IN SMALL AMOUNTS WITHIN THE ATMOSPHERE OF JUPITER, WHICH IS MAINLY MADE OF ODOURLESS MOLECULAR HYDROGEN AND HELIUM

■ That's the price of a 50ml perfume, inspired by the plan-

et Jupiter! All set to launch on October 26, 2020 by per-

- THE GAS GIANT'S ATMOSPHERE HAS THREE DISTINCT 'CLOUD LAYERS', COMPRISING AMMONIA ICE AT THE TOP, AMMONIUM HYDROSULPHIDE CRYSTALS IN THE MIDDLE AND WATER VAPOUR BELOW
  - JUPITER'S COLOURFUL BANDS ARE FORMED DUE TO THE EMERGENCE OF SULPHUR AND PHOSPHORUS FROM THE PLANET'S WARMER INTERIOR

# INSTAGRAM

As of October 5, 2020, the mostliked photo on Instagram is a picture of an egg, posted by the account @world\_record\_egg. It was reportedly created to beat the previous record of a Kylie Jenner post. The picture currently has over 54 million likes



WEDNESDAY, OCTOBER 07, 2020



PAPER (When It's Just Paper)

t's what's on the inside that counts. Similar to the push from some restaurants to replace plastic straws with paper ones, paper bottles are seen as a possible option to replace plastic ones. Because they can be made of sustainable, renewable materials (from trees!), paper bottles are getting the attention of major

Paper, of course, is recyclable — as long as it is just paper. However, paper-based bottles and containers tend to be made with several layers of materials other than paper, including plastic or foil, to form barriers. One paper bottle mak-

er's website calls 100% biodegradability a "goal. Hypothetically, you could strip away the layers and recycle the paper, but who's

actually going to do that?



Biodegradable isn't what you think

ou care about the planet, and would like to avoid bottles and other goods made of single-use plastic. But it's complicated. Choosing products with packaging that claims to be "biodegradable" or "compostable" might mean that they degrade only under special conditions, and could complicate recycling efforts, said Jason Locklin, director of the New Materials Institute at the University of Georgia. "It's tremendously confusing, not just to the consumer, but even to many scientists," he said.

Here are four examples of the kinds of products you might see on shelves or at the takeout counter.



## **BACTERIA-PRODUCED BIOPLASTIC**

romising, but economically challenging. PHA, or polyhydroxyalkanoate, has been the next big thing in biodegradability for years. This bioplastic, which can be produced by bacteria, has promising properties: Research suggests it can break down in conventional landfills. In ocean water, it will degrade within a few years, a fraction of the 450 years that it takes standard plastic. Producing the material economically, however, has been a technical challenge. Cove, a bottled water company, says it is about to bring out its product in containers made from PHA. RWDC Industries, introduced drinking straws made from the material last year in Singapore, where the company is based.



## CORN-BASED PLASTIC

t isn't petroleum-based. But in a landfill, it may be just as bad. Food service items made from polylactic acid, or PLA, include bottles, disposable cutlery, plastic films, some grocery bags and other products. They look like plastic made from petroleum, but PLA is usually made from corn, though it can come from other plants, including beets cassava and sugar cane. The labels on PLA products often describe them as compostable. But that doesn't mean you can just throw the stuff into your backyard compost pile, if you have one. To properly degrade, they have to be sent to commercial compost facilities. The process of industrial composting involves high heat and precisely controlled moisture, among other conditions, and it isn't available in many parts of the country. Worse, PLA products look enough like regular recyclable plastic bottles, that they can get mixed in at the taminate the recycling stream. recycling plant, and can con-

## **BOOK LAUNCH**

**PUNCHING THE AIR** 

'ritten in verse, 'Punching the Air' is a collaboration between Yusef Salaam, a member of "The Exonerated Five" (formerly known as "The Central Park Five") and Ibi Zoboi, author of 'Pride' and the **US National Book Award finalist,** 'American Street'. 'Punching The Air' follows Amal Shahid, a teenager, who has always been an



artist and a poet. But even in a diverse art school, he's seen as disruptive and unmotivated by a biased system. Then, one fateful night, an altercation in a neighbourhood escalates into a tragedy. "Boys just being boys" turns out to be true, only when those boys are white. Suddenly, at just sixteen years, Amal's bright future is upended: he is convicted of a crime he didn't commit, and sent to prison. Despair and rage almost sink him, until he turns to the refuge of his words: his art

## MANE MANAGEMENT

tips to prevent

airfall is one of the most common hair issues. Thankfully there are ways to arrest hairfall. Follow these tips and keep your mane strong and thick, come snow or sunshine.

Protect your hair

Excessive exposure to the sun, pollution, rainwater, and dust without proper protection makes the hair dry, brittle and limp. Try to protect hair as much as possible and if exposed to rain or dust, wash it the same day.

Don't skip the conditioner

While shampooing, always condition your hair with a nourishing and hydrating conditioner. Also, try to use cold water to wash off the conditioner. This can help to close the pores and keep the scalp cleaner for a longer time.

Regular trimming

Trimming and cutting your hair regularly not just gives good shape and style but also helps get rid of the annoying split ends and dryness. It may also boost hair growth.

**Control frizz** 

High humidity levels can make the hair frizzy, which may lead to hairfall. An easy way to tame the unruly mane is the application of serum on towel-dried hair.

Change your hairstyles Keep your hairstyle fuss-free, that will help in preventing tangling and frizzness. During harsh weather conditions, keep hair covered with a cap or a scarve.

Detangle to avoid breakage Use wide-toothed combs to detangle

hair while wet. To avoid breakage, comb your hair at the bottom and then start combing from the roots.

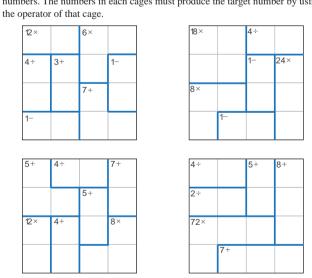
Eat right

Have a good diet to boost hair growth and maintain the quality of the hair. Intake of proper nutrients, including proteins, fats, vitamins, and minerals are especially essential for strong & healthy hair and may help to reduce hairloss.

## BE A DETECTIVE!

4 by 4 MathDoku Puzzles

Fill in the numbers 1 to 4 in such that each number appears only once in each row and colum. The grid is divided in so called cages with operators and target numbers. The numbers in each cages must produce the target number by using



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6 BY 6NUMBRICKS (EASY NO. 1 AND 2) FILL THE GRID WITH THE NUMBERS 1 TO 36 TO MAKE A PATH IN SEQUENTIAL ORDER, GOING HORIZONTALLY OR VERTICALLY. YOU MAY NOT CONNECT THE NUMBERS DIAGONALLY.

	15	10	9	8	
17					6
18		12	3		1
19		25	26		30
20					31
	22	35	34	33	
			060	6 EAS	Y 1

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# (MIXED BAG)

Q.1) Who is the author of 'Anandamath'?

A. Rabindranath Tagore B. Bankim Chandra Chattopadhyay C. Sarojini Nayadu D. Jyotiba Phule Q.2) Who is the author of the book "The Judgement"? A. Kuldip Nayyar B. Mathili Saran Gupta C. Amitabh Ghosh D. None Q.3) Who said, "I therefore,

want freedom immediately, this very night, before dawn, if it can be had"? A. Mahatma Gandhi B. Edwina

Mounbatten C. Jawaharlal Nehru D. Taslima Nasreen Q.4) 'Asian Drama' by Gunnar Karl Myrdal, is a

ing subjects? A. Theatre Movement in Asia B. Economics C. International Politics D. Look East Policy of India

book on which of the follow-



Gunnar Karl Myrdal was a Swedish economist and sociologist. In 1974, he received the Nobel Memorial Prize in Economic Sciences with Friedrich Hayek for "pioneering work in the theory of money and economic fluctuations and penetrating analysis of the interdependence of economic, social and institutional phenomena."

ANSWERS

4. D) Economics ,idbneð emtedeM (A .£ Chattopadhyay, 2. A) Kuldip Nayyar,

1. B) Bankim Chandra