

One flap of butterfly, can affect weather in Texas

We all have heard once in our lives that an uncertain action can bring a huge change, but how does that actually work? Edward Lorenz, from the Massachusetts Institute of Technology (MIT) is the official discoverer of Chaos theory. It is an interdisciplinary scientific theory and branch of mathematics focused on underlying patterns and deterministic laws highly sensitive to initial conditions in dynamical systems that were thought to have completely random states of disorder and irregularities. The Chaos theory consists of a few principals, starting with the 'The Butterfly Effect' which suggests that the cause of a typhoon off the coast of Texas can be traced to a butterfly flapping its wings in Mexico. According to the Butterfly Effect, if the butterfly had never flapped its wings, the typhoon would not have happened. Another way to put this is



that initial conditions are extremely important, and they have a major impact on the outcome of things. Something small at the beginning (a butterfly flapping its wings) leads to something major (a typhoon) in the end.

Another important principle of Chaos theory is unpredictability. Basically, we can never possibly know every single initial event of a complex system. This means that the ultimate outcome of an event is never truly known. We can't possibly accurately predict most things because even very small errors or oversights could change the outcome. Let's now understand this with some instances. A hotel that doesn't discipline a staff member for insulting a customer thus creating a culture where it is perceived as acceptable to treat customers poorly, whereby this process could eventually lead to the bankruptcy of the hotel due to poor reviews. An improbable change to a single cell in an organism that eventually leads to a serious disease.

SANVI KONDAL, SAM International School, Dwarka Sec 12

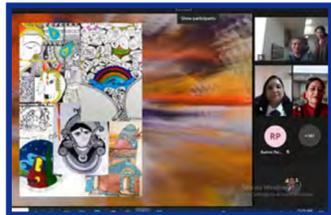
Brushing up communication skills

The school always believes in bringing out the best in its students. In an attempt to reinforce the lessons already learnt by the students in the classroom, Modern Era Convent, Janakpuri organised a virtual inter school competition, 'Percipience' for classes pre-school to II. Activities like 'Little Masters', 'Spell well', 'Grey Matter Quiz' and 'Buzz Session' were held to test the students communication skills and understanding of the lessons learned. The activities proved to be a catalyst in the all round development of the students. The activities provided a platform for the little learners to realise their potential in different domains while promoting learning with fun. The students were applauded for their dedicated efforts and outstanding performances.

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DPSGI hosts interschool cultural fest

DPSGI celebrated 'Vivacity 2021', the annual interschool cultural fiesta from January 24 to 28 with zeal and phenomenal enthusiasm. Schools from across the country participated in the virtual mega event which included twenty-one very interesting and innovative events under two categories. The first category comprised foundational domain events like 'Ghazal-e-mehfil', 'Streaming beats', 'Nriya abhay', 'Mukhata' to name a few. The second category included scholastic domain like 'JAM', 'Math rap', 'Declamation', 'Vaad ivad' 'Shlok vacha'. Participants exhibited their creativity, collaboration and remarkable ingenuity. The event was inaugurated by the principal Meera Mathur in the presence



were conducted online whereas some invited pre-recorded videos. Bidisha Roy Das, a social entrepreneur and an avid art enthusiast, was the chief guest for the Closing Ceremony which was a spectacular show. CD 2020 - the futuristic and comprehensive curriculum, the brain-child of Chairman Om Pathak was also highlighted. This curriculum presently being followed at all DPSGI Schools is a student led, inquiry-based approach to education. All the participants and the winners for various events were felicitated and awarded e-certificates. Meera Mathur congratulated the participants for their commendable efforts and hard work. The event ended on a positive note and the vote of thanks was proposed by the head mistress Soma Singh.

A season of fun at MSGS

Manav Sthali Global School, Double Storey always aims to be the centre of excellence in education reinforcing the talents of the students. While holidays are fun, finding ways to keep kids entertained and engaged has been our constant effort throughout the pandemic. Fun activities like story narration, arts and craft help in developing a child's creativity and imagination while also being a great way to teach children about life and the world around them.



These activities provided a new set of skills for self-expression, communication and endless amusement for the children. Other physical activities like yoga and zumba proved as a doorway to help these active learners acquire knowledge about body coordination and body awareness while on the other hand the culinary skills activity provided a platform for learning skills of self-expression, communication and endless amusement. The most important aspect of the session was introduction of various new food vocabulary words like vinaigrette, seasoning, flavour, blanch, enhance, etc.

Ryan remember martyrs

Students of class VI of Ryan International School, Sector - 31, Gurugram spoke on Martyrs' Day, which is observed on January 30. Young Ryanites informed and shared all the above valuable points to the school with their marvellous oratory and presentational skills. They also



highlighted the bravery of martyrs through their portraits and poems. School head, N Geeta Srinivasa also appraised the young Ryanites for their skills and motivated them to always have respect for all Indians. She emphasised on the importance of Amar Javan Jyoti at India Gate. This really helped the students to come up and build their confidence level and personality traits too.

Student Corner

HARDER KAUR, class IX, Shaheed Bishan Singh Memorial, Mansarovar Garden



Is it payback time?

An overpowering outbreak of a virus so virulent, There can be no compensation of the loss equivalent. On days when I could not go out wandering, I went inside pondering. I ventured in the world of

thoughts galore, Just like a child on a seashore. Fascinated by the world of thoughts, opinions, and notions. A soul flooded by sudden surges of emotions. When I was restricted by strict laws,

I introspected and contemplated how our conduct was. The conclusion I reached was a terrible nightmarish one. Naturally, we are being punished for the exploitation we've done. SOASMI KOHLI, class XI, Mata Jai Kaur Public School, Ashok Vihar

Catch up with history in GOLCONDA FORT

I love sightseeing. Recently, I went to the Golconda Fort in Hyderabad, Telangana along with my friend and our respective families. When we reached the place, we were told about its history. It is said that the fort was known as Golla Konda earlier, meaning the shepherd's hill in Telugu. It was built by the Kakatiya dynasty as a not-so-strong fort. Later, the fort and most of the other strong buildings were reconstructed in a period of 62 years under the first three kings of the Qutub Shahi dynasty. The Qutub Shahi rulers ruled the fort from 1518 AD to 1687 AD. In 1687 AD, it was annexed by the Mughal emperor Aurangzeb. In the olden times, Golconda was famous for its diamond market as there were lots of diamond mines around Golconda. The world-famous Kohinoor diamond was once brought to Golconda from Kollur for marketing. The fort has almost 720 steps. The highest point of the fort is known as 'Bala Hissar' which is located almost



1 kilometre away. There are 52 windows, 9 doors and 48 tunnels in the

fort. There is a specific point known as clapping portico. If a person claps at this specific point, it is said that the vibrations can reach up to Bala Hissar. Although we were able to cover only a little part of the fort, it gave us a lot of knowledge about our history and rich cultural heritage. On the whole, it was a mesmerising trip! Sreenandana S Kumar, class VI, Kendriya Vidyalaya SAP Thiruvananthapuram

CELEBRATING WINTERS

Shanti Gyan Vidyapeeth School, Goyla Dwarka celebrated winter days with virtual party. The children were welcomed with the activities including making a snowman, tinkling bells, creating thank you cards among others. Various activities such as

singing, dancing, one act play were also among the enthusiastic activities. It was a pleasant experience for the students to witness such wonderful activities. The concept was initiated with the purpose of stimulating cognitive skills. The event was witnessed by Ashwani Khurana.



OVER 480 STUDENTS PERFORM SURYA NAMASKAR

Students of DAV Public School, Jasola Vihar performed Surya Namaskar with great zeal and motivation to commemorate the celebration of Azadika Amrit Mahotsav project- Surya Namaskar under the Ministry of Ayush from February 3 to 8. Around 282 boys and 200 girls performed 2056 times surya namaskar. Yoga helps to rejuvenate our mind and body, keeps us in high spirits at all times.



Surya namaskar is a powerful technique to make us more mindful. With regular practice, it increases awareness forming a deeper connection between the body, breath and consciousness. The principal Dr V K Barthwal appreciated the participants and applause Chandir Kiran (HOD of Sports Department) and her team for their whole hearted contribution in the programme and thus making the event a grand success.

Turning VEGETARIAN will save the PLANET

Animals are my friends... and I don't eat my friends," George Bernard Shaw had said. Besides, preventing cruelty to animals, a vegetarian diet has many benefits. It helps reduce the risk of several chronic and fatal diseases and offers overall good health. Studies show that cancer, diabetes and heart ailments are rare among vegetarians. A vegetarian diet is easy to digest, cheap and can help save the planet. Breeding and raising of animals for food take vast amount of land and water resources which could be diverted for agriculture. Quite a lot of plants and their produce are needed to feed animals. Slaughtering animals and processing and preserving the meat require large quantities of energy, natural and chemical resources. Moreover, the meat may not be safe. If this is reduced, it will help reduce carbon footprints. Turning vegetarian can save our planet.

FOR



Above all, it can make your life healthy and enjoyable. Rishi Ramesh Nair, class IX, Blooming Buds Bethania Sr Sec School, Marathamcode, Thrissur

The argument that turning vegetarian will save the world is extremely flawed. Eating vegetarian food would be a terrible idea, as it could decrease the amount of plants which help in photosynthesis. Human beings are adapted to consume both plant and meat products ever since the discovery of fire and cooking process. This allowed us to survive in conditions where sufficient food was not available as we could digest almost any edible substance. Turning vegetarian will require more land for agricultural purposes which means more deforestation resulting in global warming. It will cause the population of reared animals for food to increase exponentially, further increasing the greenhouse effect. It could lead to mass culling and pose a threat to the environment.

AGAINST



It is imperative that we stop campaigning for people to be vegetarian, and bring attention to our current approach to recycling, upcycling and making existing resources cleaner and more efficient.

Sanjay Anoop Nair, class IX, Blooming Buds Bethania Sr Sec School, Marathamcode, Thrissur



DEBATE

INDIA BEGIN T20 BATTLE

Will play three-match series against WI with eye on preparation for WC

The preparation for T20 World Cup 2022 will truly start for India when the Rohit Sharma-led side takes the field against West Indies at the Eden Gardens, Kolkata. India and the West Indies will lock horns in three T20s beginning Wednesday and the focus will be on the brand of cricket India play, having witnessed disappointment in T20 World Cup 2021.

NO CHANGE IN APPROACH

Earlier, the Men in Blue won the T20I series against New Zealand, but nothing changed in terms of approach so it would be interesting to see whether the Men in Blue try out something different. Last week, KL Rahul and Axar Patel were ruled out of the T20I series, and the All-India Senior Selection Committee named Ruturaj Gaikwad and Deepak Hooda as replacements. Virat Kohli recorded scores of 8, 18 and 0 in the ODI series and it would be interesting to see how the batter performs in the shortest format.

ISHAN TO OPEN BATTING

It is safe to say that Ishan Kishan, who recently was acquired by Mumbai Indians for Rs 15.25 crore, would open the batting alongside Rohit in the T20I series in the absence of KL Rahul. It would be needed to see how the likes of Rishabh Pant, Suryakumar Yadav, Shreyas Iyer perform in the middle-order.

MAKING A CALL

The management would also like to see what Deepak Chahar, Avesh Khan, and Bhuvneshwar Kumar do in this series and this will help them in making a call on who to persist with for the T20 World Cup set to be played in Australia later this year. Deepak Hooda and Venkatesh Iyer can add firepower to the lower-order and it needs to be seen who the management goes with in the first T20I.

NZ VS IND: AMELIA KERR, MADDY GREEN STAR AS HOSTS TAKE 2-0 LEAD IN ODI SERIES

Amelia Kerr (119*) and Maddy Green (52) starred with the bat as New Zealand defeated India by three wickets in the second ODI of the five-match series at the John Davies Oval, Queenstown on Tuesday.

With this win, New Zealand has gained a 2-0 lead in the five-match series, and now the third ODI will be played on Friday.

Chasing 271, New Zealand got off to a quickfire start as opening batters Sophie Devine and Suzie Bates put on 35 runs inside the first five overs, however, the stand was finally broken by Deepti Sharma as she sent Bates (16) back to the pavilion. Soon after, Devine (33) was dismissed by Rajeshwari Gayakwad and the hosts were reduced to 52/2 in the eighth over.



Amelia Kerr

Photo: GETTY IMAGES

HORRENDOUS BATTING

Talking about West Indies, the side displayed horrendous batting in the ODI series, but the side recently defeated England 3-2 in the shortest format and they would look to take the form into the series against India. It needs to be seen whether Kieron Pollard would be available, having missed the last two ODIs due to a niggle.



Kieron Pollard

Photo: AP

ATHLETIC'S UNBEATEN RUN ENDS

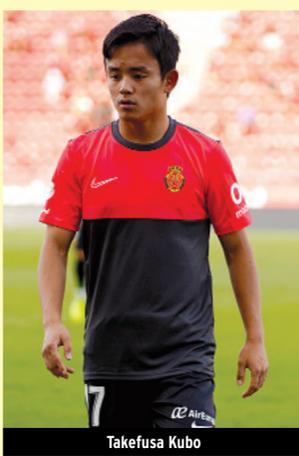
Own-goal sees team lose to Mallorca, who move six points above the drop

An unfortunate own-goal by goalkeeper Unai Simon ended Athletic Bilbao's unbeaten run as the club fell to a 3-2 loss to Mallorca in the Spanish league on Monday.

Bounced back

Athletic rallied from two goals down in the second half but conceded in the 88th minute when Takefusa Kubo's shot from close range hit the post and bounced off Simon's head before going back into the net.

The goal ended Athletic's five-match unbeaten run in all competitions and kept the Basque Country club from moving closer to the European qualification places in the Spanish league. It stayed in eighth place, two points from seventh-place Villarreal and five from fourth-place Barcelona in the final Champions League place.



Takefusa Kubo

Photo: GETTY IMAGES

Second win in a row

It was the second win in a row for 15th-placed Mallorca after it had lost four straight in the league. The victory moved Mallorca six points above the drop with a game in hand compared to two teams in the relegation zone.

The hosts opened the scoring with a penalty kick converted by Salva Sevilla in the 22nd and added to the lead in the 30th through Angel Rodriguez before Athletic came back with a goal by Raul Garcia in the 59th and another by Alex Berenguer in the 61st at Son Moix Stadium.

Trying to reach Copa final

Athletic was coming off a 1-1 draw against Valencia in the first leg of the Copa del Rey semifinals last week. It is trying to reach the Copa final for the third straight season and win the title for the first time since 1984.

Athletic's next league match is against Basque Country rival Real Sociedad on Sunday. Mallorca visits third-place Real Betis on the same day.

MILLMAN STUNS CRESSY AT DELRAY BEACH OPEN

Australia's John Millman pulled off the first upset of the Delray Beach Open, needing nearly three hours and three tiebreakers to oust eighth-seed Maxime Cressy of the US. Millman prevailed 6-7 (2), 7-6 (2), 7-6 (3).

"Conditions are challenging," Millman said. "Very windy, quite heavy balls and you're playing against a guy like Maxime who throws a completely different game style than what you're used to on tour. He's relentless, massive serve, always looking to come forward whether it's on his service games or his return games."

Millman won 117 points to Cressy's 115 in the 2-hour, 55-minute match. "If you look at the stats, you can see that it really could have gone anyone's way," Millman said.

Cressy had made his first ATP Tour final last month, falling to Rafael Nadal in the



John Millman

Photo: GETTY IMAGES

title match at the Melbourne Summer Set, one of the pre-quals to the Australian Open. Cressy also made the round of 16 at the Australian Open, losing in four sets to eventual finalist Daniil Medvedev.

Other winners at Delray in round-of-32 matches were Brandon Nakashima, who topped fellow American Denis Kudla 6-1, 6-1; Oscar Otte of Germany against Japan's Yoshihito Nishioka; and Italy's Andreas Seppi who beat German Peter Gojowczyk.

QUIZ TIME!

Q1: Which of the following stadium is the home ground of Royal Challengers Bangalore?

- a) Wankhede Stadium
b) M Chinnaswamy Stadium
c) MA Chidambaram Stadium
d) Eden Gardens

Q2: In which year Serena Williams played her last grand slam singles final?

- a) 2016
b) 2017
c) 2018
d) 2019

Q3: Who made the most assists in Spanish La Liga - 2020-21?

- a) Joan Jordán
b) Ángel Correa
c) Lionel Messi
d) Jorge de Frutos

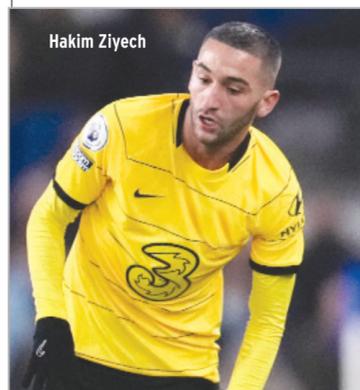
Q4: Who is the youngest Olympic table tennis medallist?

- a) Mima Ito
b) Ding Ning
c) Miu Hirano
d) Kasumi Ishikawa

Q5: Morocco attacker Hakim Ziyech has decided not to play for his country again and to

dedicate his energy on his club. Which club does he play for?

- a) Manchester City b) Chelsea
c) Real Madrid d) Aston Villa



Hakim Ziyech

Photo: AP

Q6: Who is the oldest goalscorer in women's Olympic ice hockey?

- a) Meghan Duggan
b) Riikka Sallinen
c) Cammi Granato
d) Geraldine Heaney

Q7: Which two players smashed Premier League 2017?

- a) Rishabh Pant and Kieron Pollard
b) Glenn Maxwell and David Warner
c) Chris Lynn and Aaron Finch
d) Robin Uthappa and Hardik Pandya

Q8: In which year did Maria Sharapova win her last

grand slam title?

- a) 2012 b) 2013 c) 2014 d) 2015

Q9: Who was the second top scorer in the Spanish La Liga games 2020-21?

- a) Luis Suárez
b) Alexander Isak
c) Gerard Moreno
d) Karim Benzema

ANSWERS: 1 b) M Chinnaswamy Stadium

2 d) 2019 3 c) Lionel Messi

4 a) Mima Ito 5 b) Chelsea

6 b) Riikka Sallinen

7 b) Glenn Maxwell and David Warner

8 c) 2014 9 a) Luis Suárez