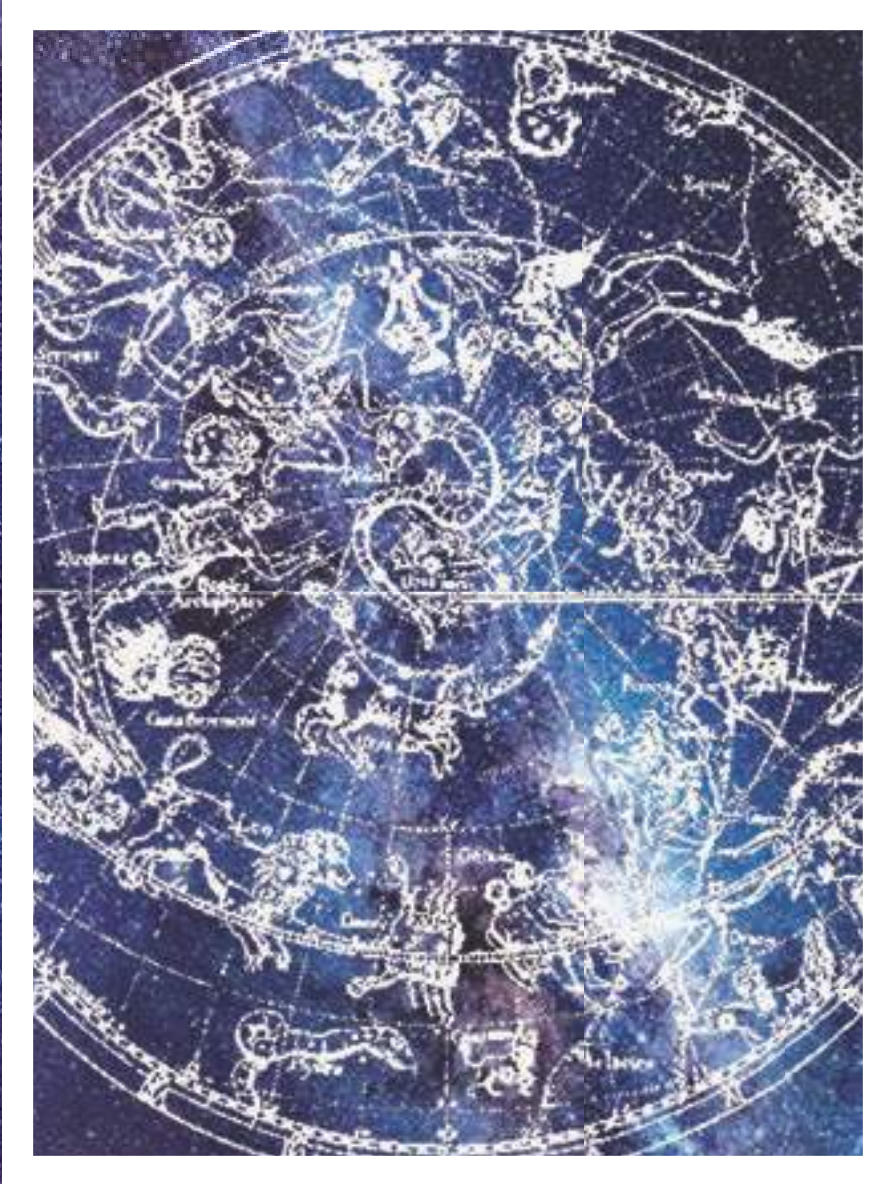


November Issue

THE NEWSTON

THE NERD POWERED SOURCE

PHYSICS NOBEL



CHEMISTRY NOBEL

GRAPHENE

SPACE ELEVATOR

CALCULATORS



FOREWORD



Capt. Rohit Sen Bajaj- School Director

"Importance of science can never be undermined, in the past two most unusual years of our times scientific knowledge has been pivotal in salvaging the world from the predicament of the pandemic and the work is still on. Pathways has always nurtured the inquiry and research yearning of students which forms the very basis of IB education as well.

I am delighted to share with the Pathways community yet another science initiative of our students, The Newston a science magazine curated, managed, and published by DP students. It not only provides a platform for sharing the latest in the field of science but opens many horizons for students as well. It is an opportunity for students to explore and implement their ideas which may lead to development of STEM entrepreneurship among few of them.

I wish team Newston all the very best for their initiative, May the scientific temper prevail as they desire."



FOREWORD



Sangeeta Nag- Senior School Principal

"The world of science has always been at the centre of man's existence and as we evolved, so too did our interpretation of the stimuli around us. I am delighted to see the legacy of Newston, a science magazine launched in 2019 by Inho Lee and Kashwi Aggarwal being taken forward by the our students.

May you all continue to revel in the joys of science and develop the scientific temper that may lie hidden.

Good luck Team Newston!"



FOREWORD



Rahul Mehra- Head of Department (Science)

"Few areas have changed in the way that education has and yet in essence we adhere to the core framework upon which the process of learning is built. All stakeholders ensure child embarks on the path of learning to learn and then she/he must make this learning a sustained one in becoming a lifelong learner. In line with this paradigm, it's a matter of pride for me to introduce yet another endeavor of DP students to build the scientific temper, The Newston – A science magazine with a difference. It complements one of the major purposes of school education, which is to prepare children for the world they are to inherit.

The next few decades will demand leaders who are also prepared to follow when needed, thinkers who adapt swiftly to changing surroundings making equal demands on the individual's technical and social abilities. I hope and really wish that students use this platform effectively in not only sharing the latest in research but to give wings to their thoughts and ideas in STEM, STEAM & STREAM. Kudos to the team Newston, who despite unprecedented challenges thrown by the pandemic have managed to translate their ideas and aspirations into reality. All the very best for this learning journey!"



FOREWORD



Abhishek Dubey - Mentor

"Learning begins with a curiosity to understand the world around us. This curiosity to learn something new beyond academic syllabus and to share their understanding of the scientific concepts in a simplified way 'THE NEWSTON' team worked hard to bring this edition to you. There are interesting articles related to Biology, Chemistry, Physics, and many more that will be added in future editions. The students have shared their view and how they see the things differently that is happening around the globe. These young minds have a lot to share with the world and I am sure 'THE NEWSTON' is going to be one such platform for them.

Kudos to the students for their hard work and dedication to bring out this edition."



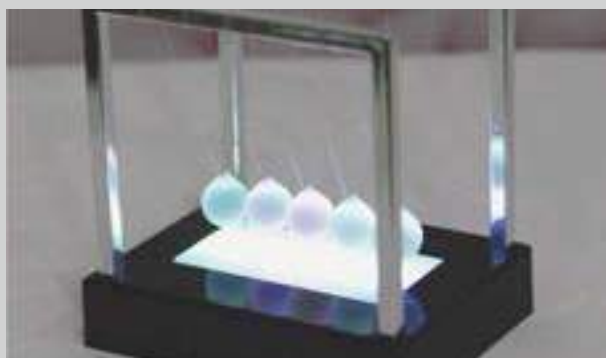
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THE UNPARALLELED INFLUENCE; FIRST NOBEL FOR CLIMATE SCIENCE

Written by: Suhani Pasricha

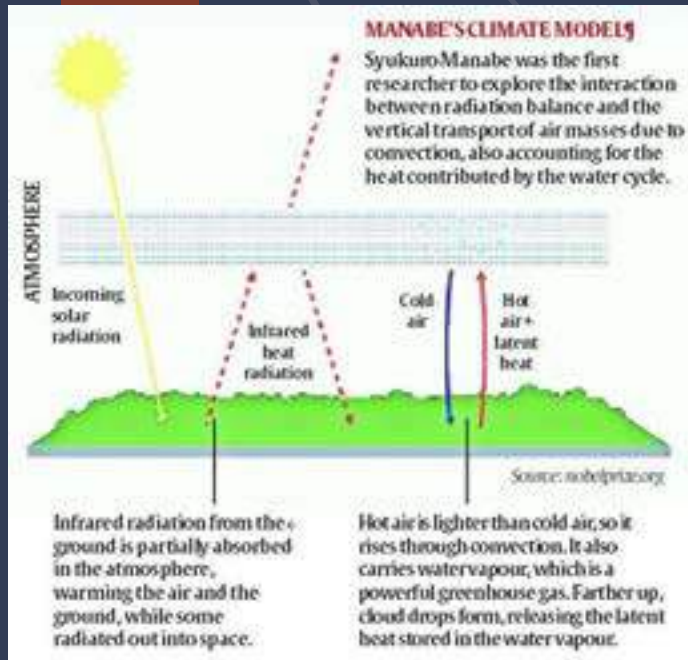
Syukuro Manabe, Klaus Hasselmann and Giorgio Parisi have been half jointly awarded the award for the physical modelling of Earth's climate, quantifying variability, and reliably predicting global warming by The Royal Swedish Academy. Parisi, the remaining half, for the discovery of the interplay of disorder and fluctuations in physical systems from atomic to planetary scales.

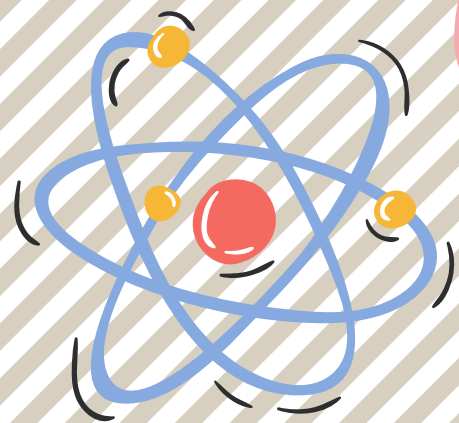
Climate Scientists have been awarded the Physical Nobel for the first time, making this recognition be seen as an acknowledgement of the importance that climate science holds in today's world. In 2007, the Peace Nobel was won by the IPCC, and a Chemistry Nobel to Paul Crutzen in 1995 are previous examples of atmospheric prize winners.

Director of the Centre of Climate Change research at Pune's IITM, R. Krishnan said that despite Manabe not having the Nobel Prize back then, he was a towering influence, nonetheless. Manabe developed the first model coupling ocean and atmospheric interactions in the 1970s.

Hasselmann's work on identifying specific signatures, or "fingerprints" have all but closed the debate over the cause of global warming; driven by human activities or a part of natural variability. Due to Hasselmann's contributions, it is unequivocal in saying that climate change is occurring because of human activities. Parisi, an eclectic physicist, has covered areas like fundamental particles, condensed matter and statistical physics. However, it was his contributions to the planetary scales that bumped him up a notch. Complex systems are with a very high degree of randomness, where weather and climate phenomena are examples of these systems. Complex physical systems have applications ranging across neuroscience and biology and machine learning. A cause for celebration worldwide can be due to the fact that this is the first time complex systems are explicitly mentioned in the Nobel Prize rulings.

Climate science has never had the same aura as particle physics or string theory, however, the perception is changing. Due to the works of scientists like Manabe, Hasselmann and Parisi, Nobel Prize rulings are becoming more liberal and reformist.





The 2021 Nobel prize for chemistry has been awarded to German scientist Benjamin List of the Max Planck Institute and Scotland-born scientist David WC MacMillan of Princeton University.

They were cited for their work in developing molecules known as 'asymmetric organocatalysis,' which allows building molecules. This advancement has helped pharmaceuticals to make better and newer drugs, and this has also allowed greener chemistry.

Researchers long believed that there were just two types of catalysts available: metal and enzymes. Both these sets of catalysts had limitations. Catalysts are substances that increases the rate/speed of reaction without itself being consumed i.e., a substance which increases the speed of reaction however remains the same after as before the reaction.

However, in the year 2000, List and MacMillan developed (independent of

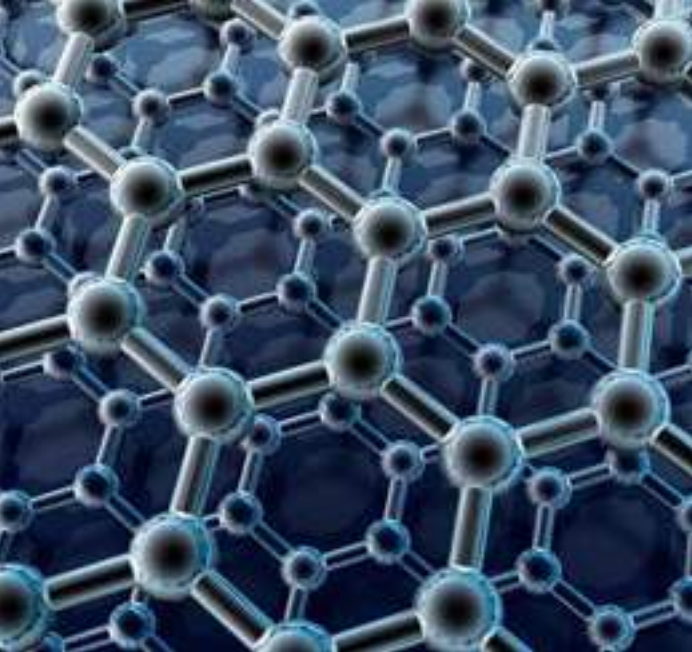
each other) a third type- asymmetric organocatalysis - which builds upon small organic molecules (hydrogen, oxygen, nitrogen, sulphur, or phosphorus). Life-supporting chemicals like proteins, which are long chains of amino acids (carbon compounds containing nitrogen and oxygen) are organic.

Enzymes are also proteins, and therefore, organic compounds. In the 1970s, an amino acid called proline was used as a catalyst in some specific reactions in research, but for some reason its role was not completely explored. When List and MacMillan started working with individual amino acids in enzymes- they discovered something which led to this Nobel Prize. The individual amino acids had an advantage over other catalysts: only one variety of the end product was yielded in the reaction.

List and MacMillan's research has been a game changer; it has helped the pharmaceutical industry make improved drugs, along with presenting a sustainable alternative to the processes of the past.

DUO WIN THE CHEMISTRY NOBEL PRIZE

Written by Mihir Seth



GRAPHENE

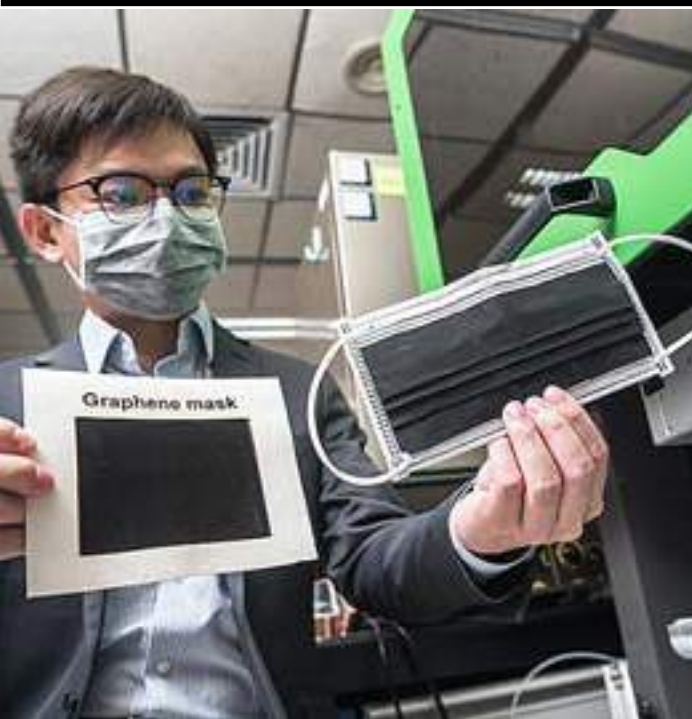
THE SUPERMAN OF MATERIALS

Written by Angad Kalra

● Fun Fact #1! ●

Graphite (the tip of your pencil) is actually just millions of layers of graphene stacked on top of one another!

Graphene was discovered by repeatedly separating graphite segments using tape



Imagine a material that conducts electricity better than any other known material; is two hundred times stronger than steel, and yet is six times lighter. Sounds like a material right out of Star Trek, doesn't it? Well, lucky for us, this material is far from fictitious.

Introducing 'Graphene', a material made of carbon atoms bonded together in a 1-atom thick sheet; with a thickness of just 0.3 nanometres, or about one million times thinner than the diameter of a single human hair. First discovered in 2004, it is one of the strongest, yet lightest materials known to man. Not only this; it is one of the world's best conductors of heat, has a melting point of over 3500°C, and is the world's most impermeable material. This means that it does not allow any particles, be it even a single gaseous atom, to pass through it. To replicate this kind of behaviour, you would need a sheet of glass over one kilometre thick!

Being such a versatile material; it can be applied in a vast variety of fields. For instance, its high electrical conductivity makes it extremely desirable for electronics; while its extreme strength and flexibility could make it an ideal coating for products.

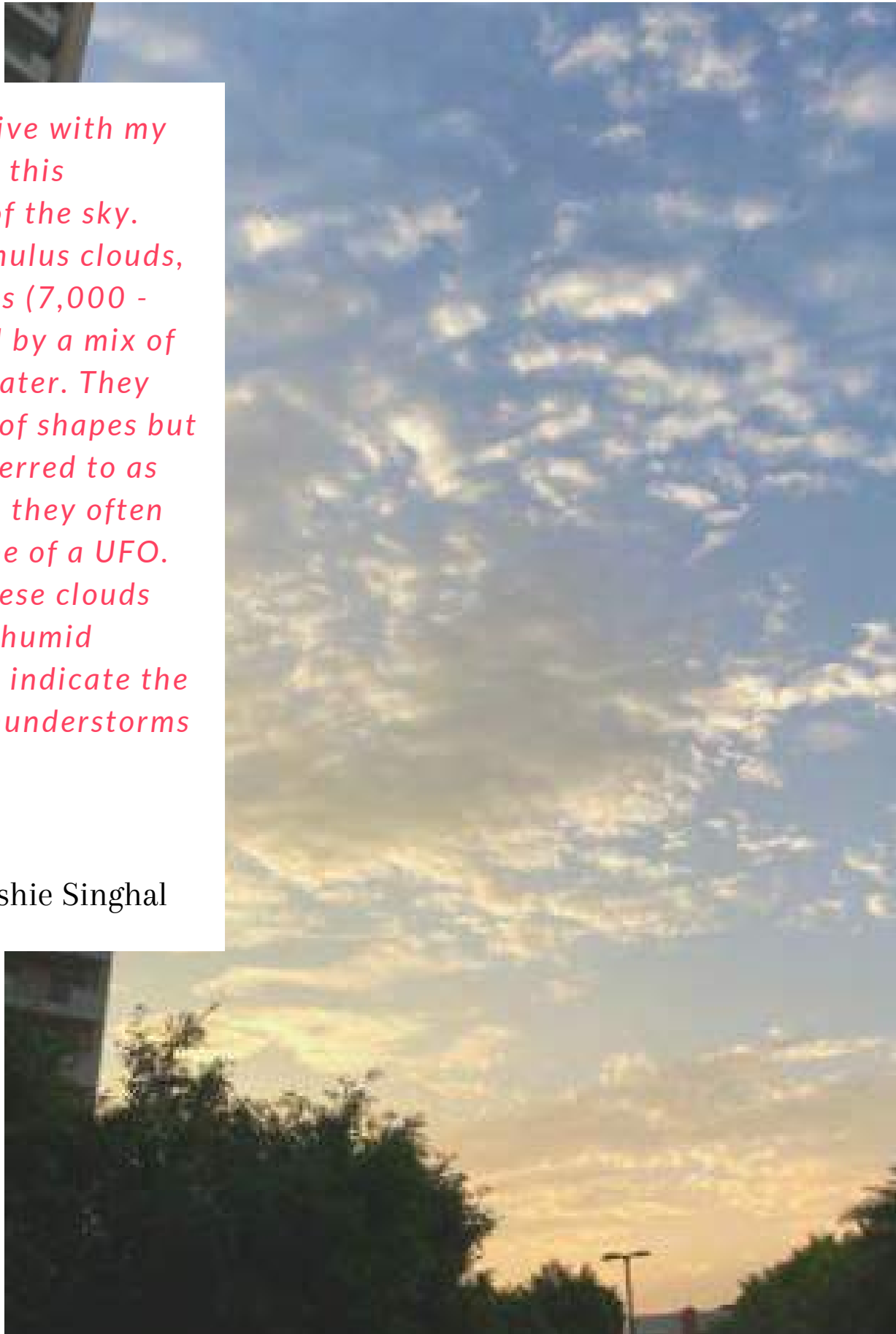
And, on top of all of that, graphene could also help in the field of medicine; revolutionizing our ability to detect viruses or deliver drugs in a targeted manner to patients.

Well, if graphene is so indispensable, how come you've never heard of it? The answer lies largely in the form of graphene. Being only one atom thick, the production of graphene is a highly cost, energy, and resource-intensive process. Currently, scientists use reactions of graphite and acid to create compounds of graphene; from which pure graphene is separated out. However, this process can only produce small flakes of graphene; nowhere near enough for commercial use.

Scientists are working day-in and day-out to find ways to mass-produce graphene cheaply. So, keep an eye out; one day the graphene revolution will come and absolutely change our lives as we know it! But till then, let us simply marvel at the elegance of this wondrous material.

"I was out on a drive with my family when I saw this fascinating view of the sky. These are Altocumulus clouds, mid-level cloudlets (7,000 - 18,000 ft) formed by a mix of ice crystals and water. They come in a variety of shapes but are sometimes referred to as 'spaceship clouds' they often resemble the shape of a UFO. Also, If you see these clouds appear on a clear humid morning, they can indicate the development of thunderstorms later in the day!"

Photograph by Tanshie Singhal





Photograph by Suhani Pasricha



JUN 2021

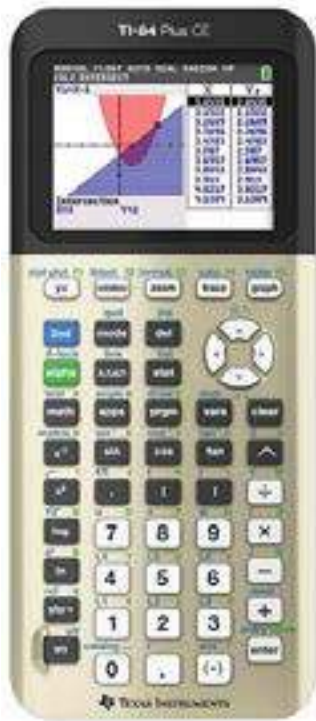
JUN 2021

OUT FOR A STROLL ON THE PARK IS ROUTINE, BUT SEEING THE SPECTACULAR SHATTERED MIRROR, REFLECTING THE BLUE SKY ABOVE MOST DEFINITELY IS NOT. WHEN WE BREAK A SOLID OBJECT, WE INTRODUCE A NEW STATE OF STRESS ON THE PARTS THAT WERE FORMERLY UNBROKEN, CAUSING THEIR SHAPE TO CHANGE A LITTLE BIT. IN FACT, ACCORDING TO THE ROMANS LOOKING INTO BROKEN MIRROR, YOU'RE WAITING FOR AN ENTIRELY NEW SOUL TO RID YOURSELF OF THE BAD LUCK.

THE INS AND OUTS OF A CALCULATOR

How do they figure out the square root of pi anyway?

Written by Daman Seth



With the help of a few pushes on some small buttons, we can get the answers to large, difficult, and complex arithmetic problems. Whether it is simple addition, or trigonometric functions and logarithms, a calculator takes a fraction of a second to provide us with the solution. A calculator is no less than a daily life amenity, and its uses are immense. For example, when consumers buy groceries and add up the total amount bought, or a shopkeeper calculating the discounted price on a pair of shoes. So how is the calculator able to work with 100% accuracy and efficiency?

To begin with, a standard calculator is comprised of a keyboard with 40 keys with a touch sensitive circuit underneath it, a processor, an LCD to show us the calculations we are doing, and a power source like a battery. Calculators also contain integrated circuits that contain transistors. The more the number of transistors the more the logical connections the calculator can make and can undertake more complex operations.

Consequently, graphic calculators have more transistors in their integrated circuits than simple standard calculators.

To comprehend the superhuman calculation abilities of a calculator we need to be well versed with the binary number system. According to digital electronics, a binary number is defined as a number that is expressed in terms of 2 digits 0 and 1. In the binary system there is no space for using numbers like 2,3,4,5. For example, if we write 2 in binary form, it would be 10 and for 3 we would write 11.

To perform the calculation of $2+2$, we give the calculator an input by pressing the key "2" and the button activates the touch sensitive circuit underneath it which in turn pushes the electrical wire into another, and because of the transistors, electricity flows along this circuit. Transistors act as electrical switches that have 2 positions: On and off. On position is represented by 1, and the off position is represented by 2.

Now the number 2 sends electrical current to 2 transistors and 1 gets on and 1 gets off. This turns 2 into 10, which is the binary form of the number. When the plus button is pressed the rubber underneath causing electricity to make the first input of number 2 stored. Now when you press 2 again the same process of electrical current and the transistors is repeated, and another pair of transistors are in the '10' position.

Furthermore, a logic gate is used to combine the 2 electrical circuits created by inputting 2 twice on the calculator. The logic gate compares the 2 circuits and then sends out a new current with the 4 transistors having a configuration of 100. Then the output given is converted back to the number system and we see the answer as 4 in the LCD screen of the calculator.

It's obvious that calculators play an integral role in our life with mathematical calculations. It is the phenomena of electronic engineering consisting of electric currents, transistors and electronic logic that helps to input a few numbers with the click of a few buttons and then get an output answer within the blink of an eye. Let us all appreciate this great invention and the next time we pick up that calculator to do an operation, we would surely remember the amount of complexity, patterns and signals it took for the calculator to give us the answer.

SPACE X

WRITTEN BY ARYAVEER SINGH

At 12:02 am UTC on the 16th of September, history was being made: SpaceX's Inspiration4 was in the process of launching. But you may ask what's the fuss about this seemingly otherwise innocuous spaceflight? The answer is rather simple: the entire crew of the spaceflight consists entirely of civilians, or amateur astronauts. Isn't that unbelievable! No professional astronauts whatsoever. This crew consisted of Jared Isaacman, a billionaire businessman, Dr. Sian Proctor, a geology professor, Hayley Arcnau, a physician for the St. Jude Children's Research center (an organization helping kids with cancer), and Christopher Sembroski, a US Air force veteran, and data engineer.

Using SpaceX's revolutionary reusable Falcon 9 rocket, the four amateur astronauts set off in the Crew Dragon's space module, named Resilience. After roughly 60 minutes, the astronauts returned to Earth with broad smiles, having seen the wonders and beauty of space for themselves. This was not a surprise since this sort of journey and experience has the power to change your life forever. But I'm sure all of you have probably already heard and read about Inspiration and therefore, today is going to be about why this is all so important. Why has there been so much news and hype surrounding the flight, and honestly, just what all the fuss is about?

The biggest change this flight will provide is the advent of commercial Space Travel and Space Tourism. Those are all big claims, and here's why they make sense: with this first spaceflight of just amateur astronauts, more and more people will be lining up to go to space.

Jeff Bezos, founder of Amazon and Blue Origin (a company akin to SpaceX), had a spaceflight of his own two months before SpaceX's Inspiration, however there was a key difference: the journey never entered space, just reaching the border between the atmosphere and space.

This, and more missions to come, are clear signs that space tourism is becoming bigger and it's not showing any signs of slowing down. The Google search results for members of Bezos' flight all name them space tourists, showing that space tourism isn't coming, but rather it's already here. SpaceX's website has a plethora of upcoming missions, which include but are not limited to sending astronauts to the moon, expanding exploration to Mars and beyond.

SpaceX's Dragon spacecraft has made space travel for civilians a bigger reality than previously thought possible. Commercial space travel isn't far off, with the rich and wealthy paying billions to go to space, already the world is moving towards an era where humans aren't bound to the ground. And even if it is scary, it is exciting in equal part to see humanity unbound.

Questions of the week-

1. What do you think will be the consequences of commercial space travel and space tourism?
2. Do you think humanity is ready for this sort of technology?

Some Further Reading!

[SpaceX launches Inspiration-4 mission with all-civilian crew - India Today](#)

[Why SpaceX's private Inspiration4 mission to Earth orbit is so important - Space.com](#)

[Inspiration4 | Splashdown - SpaceX's YouTube channel](#)
[New Shepard - Blue Origin.com](#)

[space tourism | Companies, History, & Facts - Britannica](#)



The glucose forming in the bread dough, expelling carbon dioxide, is feeding off sugars. It had been resting for around 40 minutes before this amazing process was captured. Soon after, as this wonderful dough finished rising in its own warmth, it was baked into one of the most delicious pizzas.

Photograph by Suhani Pasricha

Starch from CO₂

How to solve world hunger in a few (not really) easy steps

Written by Aryaveer Singh and Abhijay Jain

1 in 9 people around the world today don't have access to food, and many more go weeks without getting three meals daily. The food crisis isn't approaching, it's here already, and it hurts many more people than we realize. But why is this relevant? Because, scientists, being as insane and innovative as they are, may have figured out a solution.

Starch is a major component of food, appearing in flour, bread, rice, pasta, and my personal favorite, potatoes. Starch is synonymous with most foods we consume on a regular basis, and now it can be synthetically crafted from the omnipresent herald of the apocalypse: Carbon dioxide.

Carbon dioxide, or as it's more commonly known, climate change gas, is something that permeates life. It is an emission of basically anything you ever do driving a car, switching on your AC (can't blame you for that one,) arson, and more. It is one of the more common greenhouse gases, leading to the warming of the globe, and the breaking of the ozone layer. Scientists are using this problem as a solution for another, creating starch using carbon dioxide.

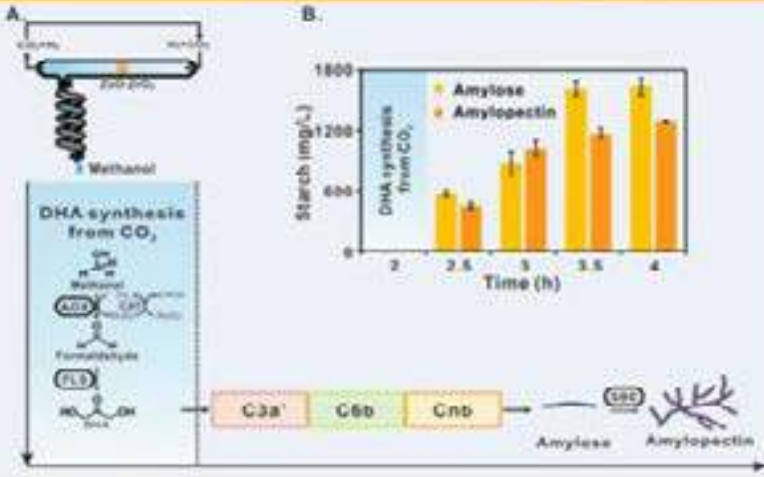
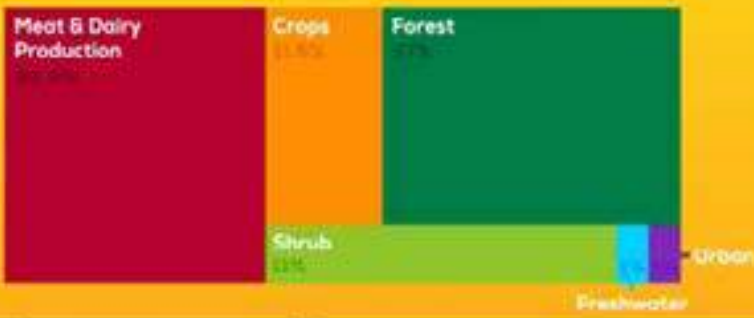
Producing enough food to satisfy the increasing demands of the world, is taxing on the planet,

because of the mind-numbing inefficiency of current agricultural systems and practices, meaning that almost 40% of all the habitable land of the Earth is used up in livestock feeding (meat and dairy production,) and only 12% is used for actual agriculture.

The process of creating starch from CO₂ is not new, in fact, one of the first biology lessons ever taught, is about the very same process: photosynthesis. Plants, like these scientists, use carbon di-oxide (alongside sunlight and water) to make starch for their own consumption. The scientists have made a significant breakthrough in accelerating this process and recreating it in an artificial environment.

Using cellulose from plants or sucrose and, said they have found a method more efficient at producing starch than corn is. The process involves the carbon di-oxide being reduced to methanol using an organic catalyst. Then, this methanol is treated using enzymes that were specifically created for the process, which converts it into sugar, which links together to become polymeric starch.

Habitable Land



If the cost of this process can come down to a level comparable to that of agricultural farming, “it is expected to save more than 90 percent of cultivated land and freshwater resources,” says Yanhe Ma, a corresponding author of the study and microbiologist at Tianjin Institute of Industrial Biotechnology. The main issue here is in manufacturing the proper reactor required to execute this process. However, scientists believe that if this does become feasible, it will change the world.

Questions of the week-

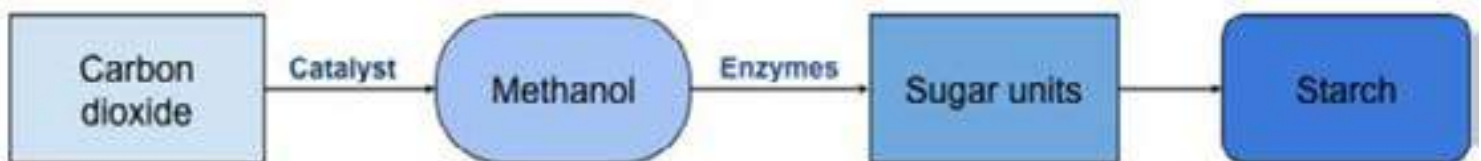
1. What can you do to help stop climate change?
2. What are some other promising technologies that could help stop the climate crisis?

Some Further Reading!

- Carbon dioxide levels hitting historic high is the final wake-up call.*
- What is starch? | 2019-04-09 | Baking Business.*
- Can YOU Fix Climate Change?*
- It's Official. Scientists Synthesized Starch From CO₂ in a World First*
- Chinese scientists report starch synthesis from CO₂*
- Why are so many people in the world hungry?*

Press release, said they have found a method more efficient at producing starch than corn is. The process involves the carbon dioxide being reduced to methanol using an organic catalyst. Then, this methanol is treated using enzymes that were specifically created for the process, which converts it into sugar, which links together to become polymeric starch.

According to the press release, this synthetic starch has the same exact molecular structure as plant-based starch, while also requiring much less land and water to produce. Now, the team is focused on lowering the expense of this process and increasing it to a mass-production scale level.





Recently, scientists from the California Institute of Technology (Caltech) and the University of California, Los Angeles (UCLA) have discovered a method to manipulate the DNA of ageing cells in the body, to stop the process of ageing. This method is called 'Spring Cleaning' and tinkered with the powerhouse of the cell, Mitochondria.

Ageing in the human body is a consequence of multiple translation errors of our DNA in a human lifespan. The poor translation can lead to the shortening of the telomere, an integral aspect in the division of a cell, which can induce plenty more mutations in newly formed daughter cells. Mitochondria are the most affected organelle of the mutation. Each cell contains hundreds (depending on the cell) and each mitochondrion carries its own mitochondrial DNA (mtDNA). mtDNA will build up over time and can be classified into normal mtDNA and mutant mtDNA (through mutations). When mutated mtDNA builds up to a high concentration in the cell, the cell dies. The cells rapidly dying (especially skin cells) are what we call 'ageing.'

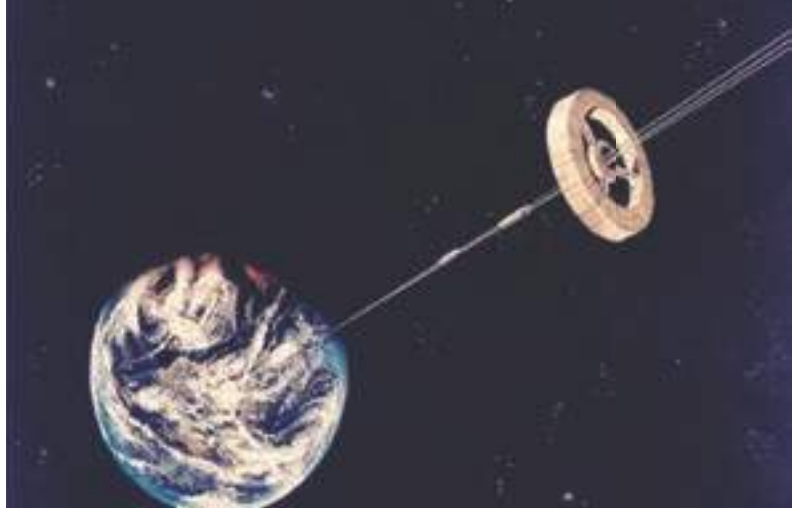
According to Bruce Hat, a Caltech professor of Biology, "The increased rates of mtDNA mutation cause premature ageing." "This, coupled with the fact that mutant mtDNA accumulates in key tissues such as neurons and muscle that lose function as we age, suggests that if we could reduce the amount of mutant mtDNA, we could slow or reverse important aspects of ageing." Fortunately, the team was able to find a method to remove mutated mtDNA from the mitochondria of cells completely, thus staving off the issues created by them. This process is called 'Spring Cleaning.' Spring Cleaning can help to be a huge life saver for the millions.

Spring Cleaning is still under trial from the World Health Organization (WHO) and Centre of Disease Control (CDC), which means this process is still not available to the public. However, mutant mtDNA has also been linked to degenerative diseases like Alzheimer's, age-related muscle loss, and Parkinson's. Spring Cleaning can help eradicate these diseases also, solving huge problems for the global community. Specifically, around 25% of the total patients in the world currently would be free from their disease!

CATCH SOME LIGHT INTO

HOW TO PREVENT AGING THROUGH SPRING CLEANING

Written by Tanush Naveen Goudar



The Space Elevator; How astronomically brilliant!

Written by Sarthak Ahuja

The costly expense of leaving Earth and reaching the outer space is one of the biggest impediments to humankind's expansion throughout the solar system. Unless you are an astronaut or a billionaire, getting an opportunity to tour the universe is exceedingly tough, or perhaps even impossible. However, what if there's a way to achieve this while saving cost to send cargos, humans, space stations and almost anything into space? The Space Elevator is a concept that is currently being worked upon by thousands of scientists and engineers across the world believing that this could be possible with the technology prevalent with us.

As the word explains, it's an "Elevator" which goes into space, enabling us to send massive payloads into the solar system with ease and safety. With the right use, we might even be able to construct cities on the moon!

Well yes, the space elevator would single-handedly be one of the biggest and the most expensive structures ever built by humans, but once it is built, the profiteering will be literally astronomical.

Sending packages and cargos with just the weight of one kilogram into space takes approximately \$20,000 dollars with rockets at current prices, which basically equals a whopping \$1,000,000 to send an average human.

This is precisely why the Space Elevator could assist us. It is estimated that sending a cargo of one kilogram into space will cost only \$200 after it is built, which is just 1/100th of the current price.

When it comes to the estimated date of construction, a global manufacturing firm based in Tokyo known as The Obayashi Corporation has predicted that they will be able to build one by 2050, whereas China estimates that they will be able to complete it by 2045, just 24 years from now.

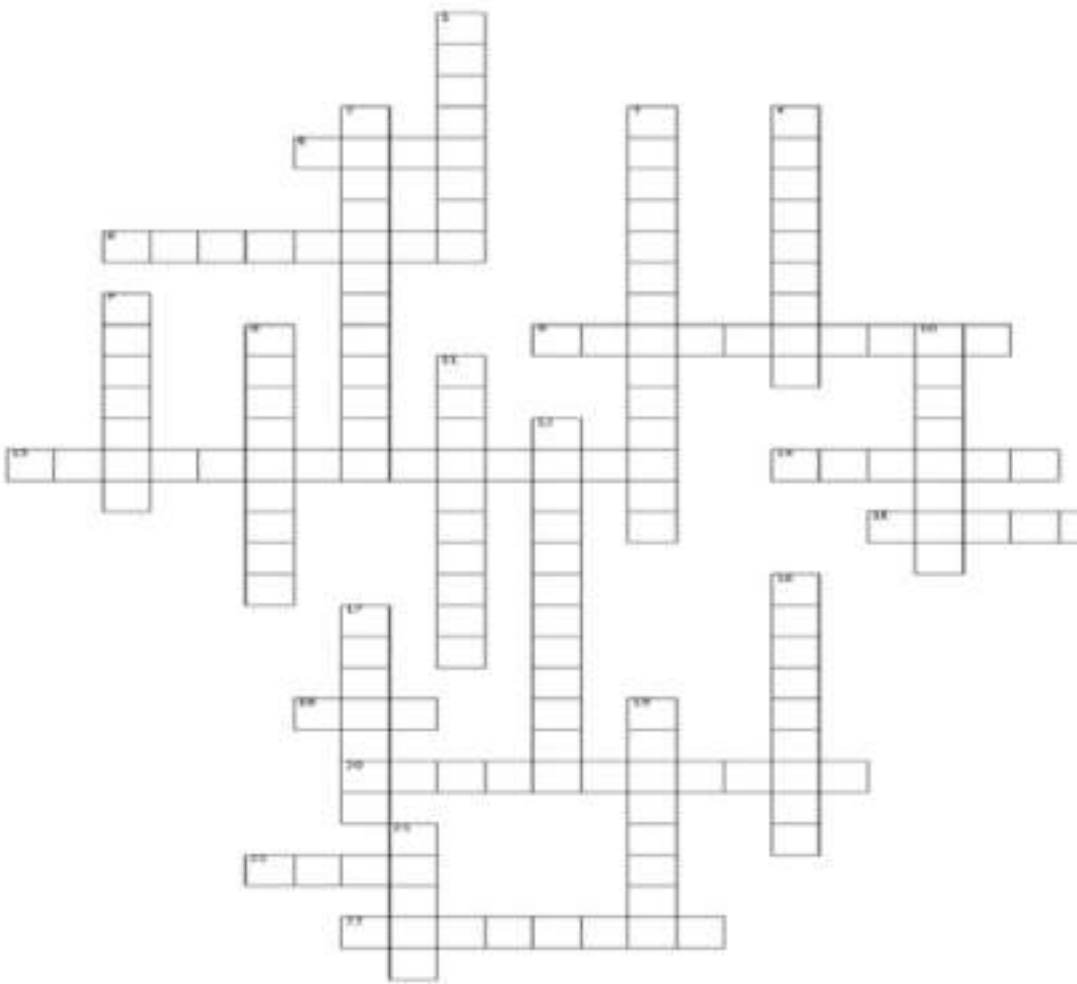
Even though this is one of the most interesting and efficient ideas ever pondered, its building is very critical as its height can reach up to more than 36,000 km (1181102362 feet). However due to this, many people predict that it will fail, due to its extravagance. Despite that, even if we are not able to experience such a miraculous structure in the near future, humans would always find and think of ways to orbit into space despite the limitations. The Space Elevator will always be a concept and scientists and engineers will strive towards making it a reality.



By Sneha Pasricha MYP 4



By Nayesha Khurana DP1



ACROSS

5. The planet often referred to as Earth's little brother.
6. The strongest material known to man (You read about it in this edition).
9. The process of heat transfer through direct contact.
13. A branch of physics that deals with heat, work, and temperature.
14. The name for a positive ion.
15. A quantity with magnitude and direction.
18. similar to DNA, but single-stranded.
20. The type of electromagnetic radiation responsible for sunburns.
22. A quantity named after a cute little animal.
23. The most electronegative element.

DOWN

1. A quantity measuring the force applied per unit area on a body.
2. The physical property of being able to be flattened into thin sheets.
3. The process by which plants convert sunlight, water, and carbon dioxide into glucose.
4. The number of waves that pass a point in 1 second is known as the _____ of a wave.
7. The planet in our solar system with 79 moons.
8. The study of the origins and evolution of the universe.
10. When an atom/molecule loses electrons in a reaction, it is said to be _____.
11. The property/tendency of a substance to turn into a gas.
12. The powerhouse of the cell.
16. The chemist most renowned for creating one of the best precursors to the modern periodic table.
17. The heaviest naturally occurring element.
19. A force that opposes the motion of a body.
21. A renowned physicist, and a famous car brand.

Trivia Time!

By Daman Seth DP1

Which discovery brought Albert Einstein his first Nobel prize?

Photoelectric effect

Why does the Eiffel tower grow smaller during the winter and taller during the summer?

Metal expands when heat is there, and metal contracts with decrease in temperature

Is a brick of mass of 1kg heavier than a bunch of feathers with a mass of 1kg?

No, the weight is the same $w = mg$ and the mass is the same.

When is the International day of light celebrated?

It is celebrated on 16th May to celebrate the anniversary of a successful operation of Laser by a scientist Theore Maiman.

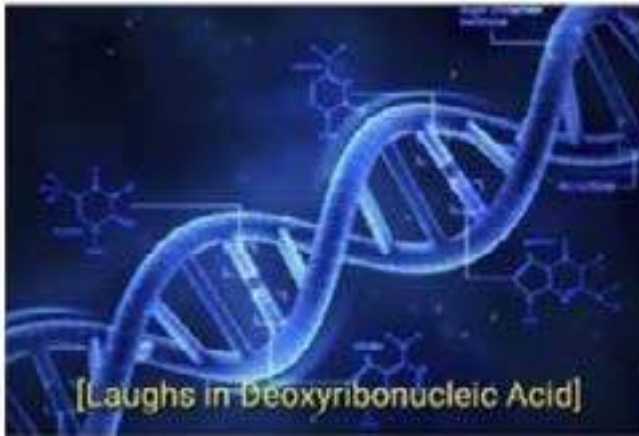
Even though the universe is expanding, why are the solar system, planets and the Earth not doing so?

Because of the binding force of gravity

True or false: Time goes slower at the top of the building than at the bottom.

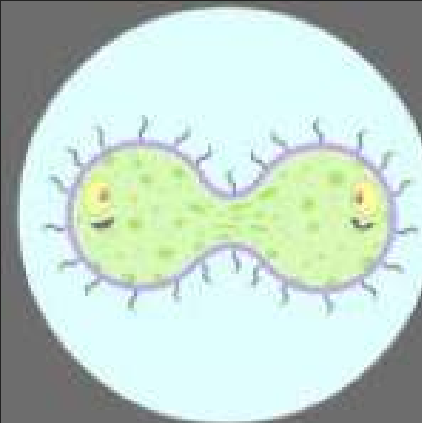
False, as per Einsteins theory of relativity the farther an object is from the Earths surface the faster the time passes. So it is faster than that at the bottom.

When you accidentally type
AGAGAGA instead of HAHAHAH



[Laughs in Deoxyribonucleic Acid]

Prof: Can you show DNA and RNA
visually?
ME:



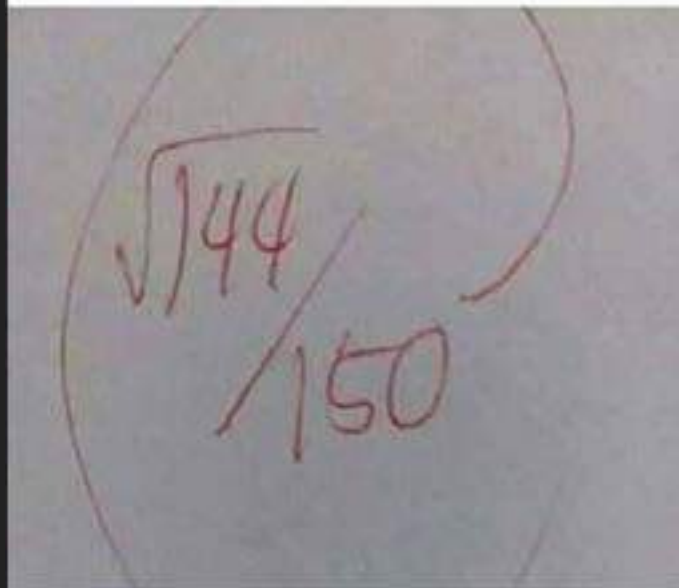
BIOLOGY - THE ONLY SCIENCE
WHERE MULTIPLICATION AND
DIVISION MEAN THE SAME THING

ME: I'M SAD.
**THEM: THEN TURN IT INTO
SOMETHING POSITIVE!**
ME: | I'M SAD |



Modern problems require modern solutions

When the teacher doesn't want to hurt your
feelings

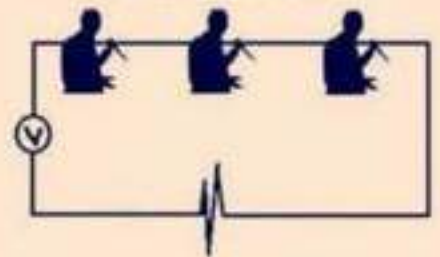


By Trisha Bagri and Suhani Pasricha

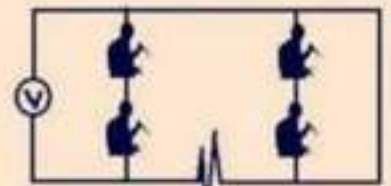
480 THz	510 THz	540 THz	610 THz	670 THz	750 THz
635 nm	590 nm	560 nm	490 nm	450 nm	400 nm



SERIAL KILLERS



PARALLEL KILLERS



OUR TEAM



Kashwi Aggarwal

A word from The Newston's founder Kashwi Aggarwal,
"I understand that everyone doesn't indulge in reading science books everyday. This is why I began this magazine. So that people can read and learn in an exciting manner. So that I can speak the love for science."

Editors-in-Chief



Suhani Pasricha, DP 1B



Angad Kalra, DP 1G

Content & Editing Team

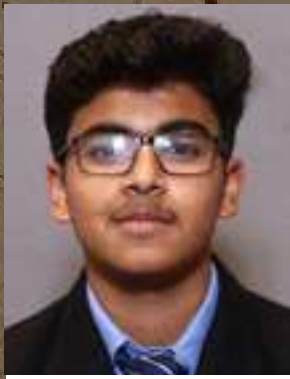
Design Team



Tanush Goudar, DP 1E



Mihir Seth, DP 1B



Arjun Srivastava, DP 1D



Daman Seth, DP 1C



Aryaveer Singh, DP 1A



Tanshie Singhal, DP 1A



Abhijay Jain, DP 1C



Sarthak Ahuja, MYP 4B

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