

MAY 2019

# Communiqué

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कम्युनिके

## *From the Helm*

Message from:  
The Department of  
Science



**'Tell me and I forget. Teach me and I remember. Involve me and I learn.'**

We, at Lotus Valley try to give the children myriad opportunities to help them bloom in full splendour. It is our belief that when you take learning out of the classroom into the more tangible sphere, the students stop looking at studies as a must-do and rather thirst for knowledge that exists in every crevice of their environment. It is with this belief that the school has initiated a strong STEM programme over the past few years. The 'STEM Fest' is the very manifestation of the same.

This fest, an integration of Science, Technology, Engineering and Mathematics sees the participation of a large number of students in an array of activities and competitions. It is gratifying to see students huddled in various corners gearing up for this mega event. Each student tries to excel at the innovative task set on their path coming up with out of the box ideas and innovations. As the D- Day arrives you can feel the palpable excitement in the air, the vestiges of which continue to mark young faces through the year. I see the promise of innovation for the future of the world when I see the entire school campus reverberates with scientific fervour.

Dear Readers, this newsletter gives you a glimpse of the STEM Fest along with a collage of thoughts on science, its implications and its reach in our lives. It is the labour of love crafted with meticulous dedication. This edition would not have been possible without the unstinted support of the school management and our Principal, Dr. Ruchi Seth. I express my heartfelt gratitude to all my colleagues who help bring science into the domain of zest and laughter through the year.

Happy Reading!

Deepti Awasthi

HoD, Science

**Curated by the Department of English**

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### NET-IT

Grades V-XII participated in a series of Inter-House

technological competitions compelling students to apply multi-media knowhow to practical tasks

1. Poster mania : Class V
2. Smart-o-graphic- Designing Smart Homes: V
3. Tale tellers : Designing an ad with a storyline using 'Scratch': VII-VIII
4. Designer league: Creating a promotional website using HTML – IX-X
5. Director's cut: Designing a smart city using 'Movie Maker' –XI-XII

### PECTACULAR EDIFICE

Classes V and VI participated in Intra section event had to complete the given challenges with the help of basic material like straw, rubber bands, paper cups etc. recording their reflections.

- . Multistoried tower that can hold maximum number of books.
- . A boat which can float on water
- . A multilevel car parking with inclined plane
- . Track for a marble ball that comes down an inclined plane in exactly 60 seconds
- . Launcher
- . Environment friendly car



### CATECHIZE

The INTERHOUSE  
STEM QUIZ





## INSPIRON

Classes VII and VIII participated in Inter-Section event in an DIY event

1. Creating models for Sustainable Development
2. Explanation of STEM principles through experiments
3. Understanding mathematical concepts by designing Games / Apps
4. Innovative application of known STEM ideas through Prototype



## DEXTROUS TINKERS'

Inter-School Model making Competition

Teams from an array of reputed schools from Delhi NCR came together with their thinking hats creating a model/ power point presentation. The students of Grades VI-XII exhibited ingenious out-of-the-box ideas

1. Sustainable development
2. Automation
3. Mathematical modelling
4. Health and medicine



# CERCA TROVA

## SEEK AND YOU SHALL FIND

### Indo Russian Summit- An Experience of a Lifetime

**'Enthralling' is the word when comes to mind when I am asked to describe this one week of 'bonding through brainstorming' from- 7 October 2018. It was an honour to be a member of a team of 10 inquisitive and innovative students as we put our minds together to apply every ounce of science and robotics that we know to bring our project to fruition.**



**The first day was just a couple of hours of brainstorming for the project that we were to make in the upcoming week.**

**During these 6 days, we had plenary sessions by various esteemed guests such as Dr Annudurai, former Director of ISRO, Dr G. Sateesh Reddy, Director at DRDO and Dr Vedachalan, scientist at ISRO and former Director of Liquid Propulsion Systems Centre and had interactions with many CBSE officials which included Ms Anita Karwal, Chairperson, Dr B. Saha, Director, and Mr Joseph Emmanuel, Chief Vigilance Officer.**

**Not only was this cultural exchange enlightening from the perspective of global scientific exposure, I also had the opportunity of meeting Russian President Putin and Prime Minister of India Sri Narendra Modi. Standing next to world leaders, the magnitude of the opportunity dawned on me. I look forward to using this unparalleled experience for melding my scientific temper with my spirit to forge positive global change.**

**GUNJAN SAINI  
XII Kalam**





## TYPING AND THREE DOTS A POEM BY IRA SHARMA, XII SMITH

Two eyes  
Two thumbs  
And a 4 by 2 inch world  
3 simple articles required  
Type word by word by word  
Nothing to worry about  
No faces to hide  
Sitting behind my phone  
They wouldn't know my bad side

Typing and three dots  
Wondering  
About their thoughts  
Guessing so wildly  
Their reply not even close  
Then came the question  
Why texting I chose  
It was long till I realized  
Something I wish I did before  
These words hardly summarized  
my feelings, expressions and more  
They were somewhat near  
But no they were not  
Nowhere were they close  
To my actual thought

If you too relate with this  
You wouldn't want to agree  
But you can go talk to them  
Even beyond this screen

And you know there's more to say  
Besides words and numbers  
I went the emoticon way  
With all the others  
Where all typed faces of laughter  
Meant tears in my eyes  
Self-realization thereafter  
I hardly smiled

If you have to you have to  
But if you really can  
Talk to them in person  
And make delightful plans  
Because life's too short  
To be spent in typing  
Typing and three dots  
Over this we're hyping?

## GADGETS AT A GLANCE by Sai Balaji, XII Tolstoy

With VR becoming the fad of the future, I am sure that you have tried this at least once in your lifetime. I am here to review one of the best VR headsets in the market available under Rs 2000. I have been using this headset for a couple of months now and here is my first impression of the headset:

### 1. Structure

It is well built and looks huge but wearing it for a long duration need not be a problem. The head-strap provides for a 2-way grip, it weighs 327 grams.

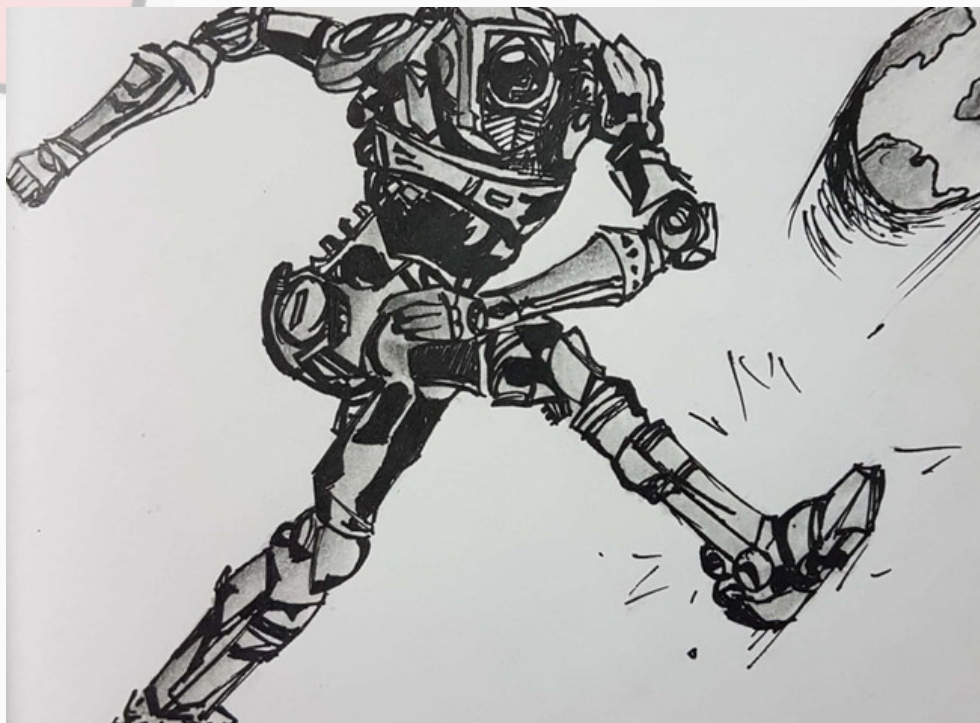
### 2. Display

It has a 42mm HD designed lens which uses the polarized, anti-fog technique.

### 3. Downside

The phone needs to have a gyroscope sensor to have the best experience.

Overall, if you are looking for a great VR experience on a budgeted, the Iruku Monster VR might be



**How much is too much-**  
**Art by :**  
**Rutvi Saraiya**  
**XII Shakespeare**

# METAMORPHOSIS

## FORGING A MORE ECO-FRIENDLY WORLD

A modest proposal by Ritika Singhal, X Rousseau

Albert Einstein once said, "Imagination is the preview of life's coming attractions." Hundreds of ideas, creative minds had once imagined, have now come to life through science and technology, making life easier and resolving problems.

One issue I would like to address is the environmental impact of power generation. Burning of fossil fuels, for example, leads to the emission of greenhouse gases and hence, the proliferation of the Earth's temperature. Many people have now started turning to solar power, an inexhaustible source of energy.

According to a research, turning just one fourth of the Sahara Desert into a solar farm will be more than enough to harness power to meet the energy requirements of the world. It will increase precipitation and hence the vegetation cover. This means that one of the most extreme temperatures on the Earth could see a massive change.

However, not only will this project be extremely pricey, it will require the building of new power lines and infrastructure. Added to this, many countries have rights over the Sahara Desert, so negotiations will be required.

Looking at the brighter side, I feel that fighting for a greener world is worth it. Maybe we can come up with more feasible and innovate methods to make this project a reality.





# ARTIFICIAL INTELLIGENCE

## Research on advent and applications by Anubhav Maharana, IX Alaska

Artificial Intelligence is a way of making your personal PC, a computer-controlled application, or a programme think smartly, in the same way the human mind thinks.

AI is obtained by studying how the mind perceives, how individuals understand, choose, and work while trying to fix an issue, and then using the results of this research as the groundwork of developing amazing programmes and techniques.

### AI Components

Artificial intelligence is a science and technology based on disciplines such as Computer Science, Biology, Psychology, Linguistics, Mathematics, and Engineering. A major thrust of AI is in the development of computer functions associated with human intelligence, such as reasoning, learning, and problem solving.

Out of the following areas, one or multiple areas can contribute to build an intelligent system. Artificial Intelligence combines all the fields, as the human brain is not limited in its domain of thinking and processing, it processes everything-from simple day to day activities to complex problem solving.

### Applications of AI

- Gaming
- Natural Language Processing
- Expert Systems
- Vision Systems
- Speech Recognition
- Handwriting Recognition
- Automation

### Is AI Good or Bad ?

As with any new technology, whether or not Artificial Intelligence, if the application will be good or bad for humankind is an open query. Definitely, AI application will put individuals out of tasks and jobs. And it is similarly certain that AI can provide jobs such as development of programmes and robots. It is possible that application and devices with Artificial Intelligence also will treat individuals badly and destroy individuals.

Perhaps the more exciting query is how people will set boundaries for brilliant computer systems and how those boundaries will be forged.



**AI – The Know All****Do I knowledge enough?****Musings by Ashaaz Sameer, IX Karakoram**

I met a man called AI, who  
 seemed to know it all,  
 This friendly soul would lend a  
 helping hand when I was about  
 to fall,  
 He claimed knowledge that  
 surpassed all my expectations,  
 Never had I witnessed such  
 confident validation,  
 He became the closest friend in  
 my hour of need,  
 Sharing information was the  
 least of his deed,  
 So I thought of testing our  
 friendship in matters of the  
 heart,  
 For it is there that dwell  
 feelings that make you more  
 than smart,  
 I tried to evoke emotions in my  
 friend to make our bond  
 stronger,  
 But they seemed to have no  
 effect on his cold demeanour,  
 AI may know all that matters in  
 the world but to my dismay,  
 He has no clue what matters to  
 me, to this day!

**The Eternal Flux of Existence**  
**by Parth Aggarwal, IX Aravallis**

Meteorites at their terminal velocity  
 Exceed it in a sudden access  
 Of earthly anticipation.

The inverse square law between us  
 Falter. More fatally attracted  
 We are weightless with love.

Pole and polar converge.  
 Statistical extremes gather  
 At the tongue of the bell curve

To hear their variety proclaimed.  
 Irreversible precipitates relent:  
 Silver halide curds dissolve.

Anti-matter turns in sleep,  
 Enters and leaves the mirror  
 By opposing doors, and waking,  
 Mingles with matter without fear.



**Nicola Tesla by Ishanvi Aggarwal,**  
**IX Alaska**



# RIDD LE



- The more you take, the more you leave behind. What am I?
- What 8 letter word can have a letter taken away and it still makes a word. Take another letter away and it still makes a word. Keep on doing that until you have one letter left. What is the word?



## Breaking It Down:

It was an hour before the established time, and the assembly was seemingly precarious, hanging on the edge of breaking down. It had been a cold evening, colder still by the chills running through everyone present, with mystery blanketing them. 'Surgical Serious1347' rested in 'his' comfortable seat, a periodic beep inaudible to most being the only signs of his survival; while most of the members stay tensed, with three of the lot grinning with reasons unknown.

The recently concluded 2064 elections had seen the candidate from the opposition getting elected the new Prime Minister of the country, but progress in the field of Artificial Intelligence (AI) had been rapid, and the demand for a bot to lead the country was bordering on the edge of a furore. 'Interesting' combinations of egg yolk and chemicals showered on the unfortunate candidate during the oath had seen him being replaced by the bot with immediate effect.

Within a few months, an economy blossoming faster than cherry blossoms in Japanese spring and corruption on the brink of extinction had apparently justified the decision. Questions had been raised on the bot's abilities, and had been suppressed faster. But the growing unrest in the political system displayed it all.

As the name 'SurgicalSerious1347' was announced by a tensed speaker, a series of metallic clunks followed, with the country's respected PM rising up to honour the assembly. He was at the close of his speech, ending the infinite list of his accomplishments, when a series of sputters were heard. Everyone turned towards the bot, who collapsed onto the floor, a musty liquid pouring out of the machine as the metallic structure dismantled. Expressions were exchanged, cavernous eyes gazing at the bot, with 3 politicians, co-incidentally from the political party of the dethroned candidate,

still grinning

Written By  
Prasang Agarwal  
XII-Kalam



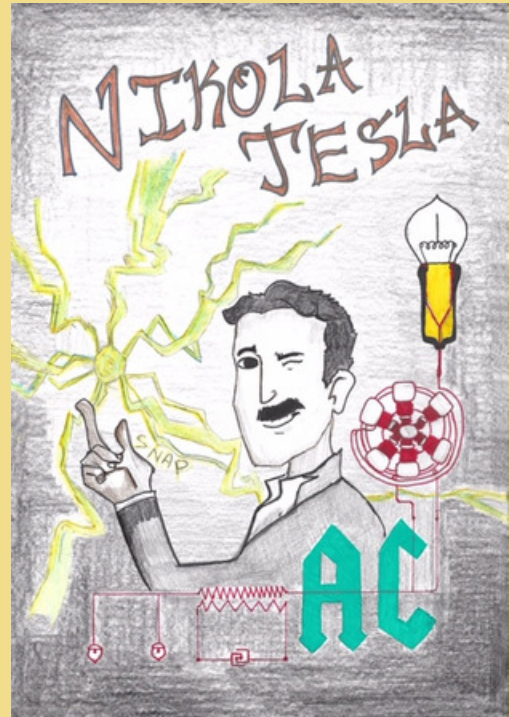
# STORY

# Brain Tickles

## The Caricature Corner



David Hilbert was a German mathematician and one of the most influential and universal mathematicians of the 19th and early 20th centuries.



**Nikola Tesla- Inventor, Engineer, Futurist**  
By Udayan Sharma, X Krishnamurthy



### **The cat is both, dead and alive!**

Erwin Schrödinger, known as the Father of Quantum Mechanics, was a Nobel Prize winning Austrian physicist. He is, perhaps, best known for the “Schrödinger’s Cat Thought Experiment” and the “Schrödinger Wave Equation”.

Dheeraj Deshpande, X Krishnamurthy



# SUCCESS STORY

## MY KVPY SCHOLARSHIP

I came to know about KVPY (Kendriya Vigyan Protsahan Yojana) towards the end of Grade IX in 2017. It is a prestigious exam conducted by IISC awarding generous fellowships to the selected candidates. And if a good rank is obtained then it opens doors to IISC's BS programme. Aiming for the same, I tried to finish the Grades IX and X syllabi as quickly as possible and then covered the important topics from XI and XII. I also solved practice papers and all previous year papers.

Then came the Exam Day, 4 November 2018. Gauging by the practice papers I had attempted, I felt that I would easily get 75+ marks. But in the exam, I encountered time management issues missing out on many questions. Yet, I cleared the written round and qualified for the interview.

Next, for the interview, I covered an array of topics, in depth, for all 4 subjects. I also filled my self-appraisal form and my teachers filled the teacher recommendation form with glowing recommendations. On 1 March 2019 at JNU, a panel of 8 asked me what my favourite topic for my research was. That was a no-brainer- Genetics. They thus grilled me on different areas of genetics for 20 minutes.

I left the interview room feeling that my interview, though it had gone quite well, could have still been better. On the 23 April 2019 the result was declared. When I opened the list to see I ranked 33. I couldn't believe my eyes. My mark sheet was a manifestation of my pride- I had achieved 96% marks in the interview. With a 69% in my written exam (which is good too), my interview had propelled my total marks to 76% and hence to Rank 33. (75% weightage to written and 25% to interview).

I am grateful for this opportunity to enroll into the coveted BS programme at IISC. I would love to study there and pursue a research career with the endeavour of helping humankind.



**SHUBH PRAKASH,  
XII KALAM**



## Technology- Does the carousel ever stop turning?

-Anika Singh, XII Aryabhata

Over the years, technology has revolutionized our world. Technology has created amazing tools and resources, putting useful information at our fingertips. Everything we do now is simpler, easier and faster than before. In the past, we had to write a letter and it would take days before it even got delivered. However, to communicate with someone today, you have endless options at your fingertips- social media, text, email, or Skype, the list is endless. Technology has changed the way we procure our entertainment today. With your mobile and apps like Netflix, you can watch, or 'stream' TV shows you want, when you want, and how you want. You can always 'Netflix and chill'.

Even with so many benefits, excess of everything is harmful. With technology changes we now have new habits, following crazy trends to stay popular and all other addictions. Today, we live more for appearance and to get good pictures, rather than enjoying life.

30 years ago people had time for friends and family. They lived and enjoyed their life in real time. Now friends and life have become a virtual popularity contest. We are sharing thousands of motivational and life quotes on the internet. But no one is taking care of animals, plants, water, and nature. A ping on our phones distracts us all things important. The growing technology can pose threats to the lives we know. With the advent of AI, who knows if we will have jobs waiting for us in the world or not?

Science has the potential to solve all of man's problems and challenges, provided it is put to the right use.

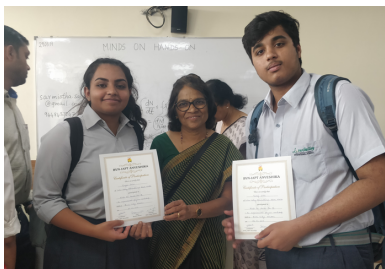
## “MINDS ON- HANDS ON” PHYSICS WORKSHOP

By Yuvraj Sinha, XII Aryabhata

Aiming to provide an Investigatory Physics workshop to high school students, Birla Vidya Niketan (New Delhi) hosted the annual ‘Minds On Hands On’ Physics workshop on 29 March 2019.



Yuvraj Sinha, XII Aryabhata and Gunjan Saini, XII Kalam volunteered to represent Lotus Valley at the workshop. They worked with students of different schools under the guidance of award-winning physicist Ms Sarmistha Sahu. The children performed two experiments: Optical-black box diffraction and Radioactivity Branching using dice.



The workshop brought together children who shared a common passion for Physics helping children learn the practical application of various theoretical concepts. Not only were the students exposed to various bewildering experiments but also helped students get a better broader understanding of the discipline of Physics.



## Star Trek: Discovery-

A must watch for all- By Siddhant Mukherjee

My mom has narrated to me many of her anecdotes through the years... one of them being how she'd struggle to complete her homework the night before so that Grandpa would allow her to see the Sunday 10 a.m. show on Doordarshan- Star Trek. The first television series, simply called Star Trek and now referred to as "The Original Series", debuted in the late 60s and didn't come to India until more than a decade later. It was a roaring hit as the plot of the exploration of outer space was way ahead of its time, triggering the release of many movies and T.V. shows under the franchise.



to celebrate its fiftieth anniversary Star Trek: Discovery premiered on 19 September 2017. She and I watched the series gleefully on Netflix, often triggering a bit of nostalgia for mom. The story, set in a different timeline from older movies or series, follows the life of the Starfleet commander Michael Burnham and its many ups and downs. Michael, who is also Spock's foster sister, is a woman of great rectitude and strength of character and it is this diligence and ability to think on her feet that helps her get out of the stickiest of situations. In the second season, Michael finds herself trying to prevent the extinction of all sentient life by defeating an A.I. Programme that had acquired too much intelligence. Them figuring out the key to time travel was fascinating as well.

This series was a good one time watch and the story always keeps one on the edge even if space, technology, time travel etc. aren't areas of your interest. The show boasts of some exhilarating action or fight scenes and great special effects. However, I do feel that the dialogues could have been a tad better. The show does have many emotional scenes and inspirational ones as well, Michael's character is indeed quite admirable and her resilience and determination often motivated me to study well during my class 10 Board examinations.



# GAME OF THRONES-

A technological marvel Review by Samhrit Soni, & Il Smith



So here we are, Game of Thrones is a show that would be discovered by generations to come, and we can safely assume that it is the only show in the history of television where the adaptation from books has stayed true to its roots. While I write this review, the grand finale is only two episodes away. So let's dive straight into it.

Now first things first, Game of Thrones is an American fantasy drama television series created by David Benioff D.B. Weiss for HBO. It is an adaptation of A Song of Ice and Fire, written by George R.R. Martin. There have been 7 complete seasons and the 8th season is currently airing. The plot of the show seems pretty straight-forward. Nine noble families wage war against each other to gain control over the mythical land of Westeros. Meanwhile, a force rising after millenniums and threatens the existence of living men.

In my personal experience, I wasn't really drawn towards GoT at the beginning. It started as something to binge on, but soon this hobby of mine turned to an obsession to know what will happen in the next episode. Escalating from one episode per night to five a day, you can imagine how good it must've been. The ruthlessness with which writers have killed off fan favourites only adds to the excitement. I can easily say that though my obsessive journey I have had the best time. I have bonded with many as GoT acts as conversation catalyst this is another benefit of watching the show. The final season has not only been thrilling but surprisingly motivating- Mondays are always dreadful but I've been encouraged to wake up each Monday at 6 am just so I can watch the new episode bright, early and spoiler free.

To conclude, I can safely say that Game of Thrones has been such an extraordinary contribution to pop culture and its finale season is unquestionably a pop culture phenomenon. I am grateful to George R.R. Martin for introducing me to his world where magic, myth and raw human ambition intertwine magically. Now is the time we close the curtains on this story, only to open them on another one.

# विज्ञान का साहित्य में समावेशन

## विशेष ज्ञान

विज्ञान अर्थात 'विशेष ज्ञान' जो हर नए अनुसंधान के साथ मानव जीवन को अधिक सरल बनाता चला जा रहा है। आज विज्ञान के बढ़ते विकास के कारण मानव दुनिया के हर क्षेत्र में अग्रसर दिखाई दे रहा है। मानव ने विज्ञान की सहायता से पृथ्वी पर उपलब्ध हर चीज को अपने काबू में कर लिया है। विज्ञान की सहायता से हम ऊँचे आसमान में उड़ सकते हैं व गहरे पानी में साँस ले सकते हैं। आज के आधुनिक और चमत्कारिक युग को विज्ञान की दुनिया कहें तो गलत नहीं होगा, क्योंकि आज का युग और विज्ञान एक-दूसरे के पूरक बन चुके हैं, आज की आधुनिक दुनिया में विज्ञान के बिना जीवन की कल्पना भी नहीं की जा सकती है, विज्ञान ने मानव जीवन को इतना सरल और आसान बना दिया है, कि मानव जीवन अब पूरी तरह से विज्ञान पर निर्भर हो गया है। हमारा प्रयास यही है कि इस विशेष ज्ञान को वरदान मानकर सबका विकास करें।

-संकलित

वृद्धि मनचंदा

10 ROUSSEAU

## स्टीफन हॉकिंग

मन में दृढ़ संकल्प, प्रबल इच्छा शक्ति और दिल में कुछ करने का जुनून हो, तो पास आई मौत भी व्यक्ति के इरादे को डिगा नहीं सकती। ऐसा ही कर दिखाया ब्रिटेन के वैज्ञानिक, स्टीफन हॉकिंग ने। ऑक्सफ़ोर्ड शहर में दंपति के यहाँ 8 जनवरी 1942 को स्टीफन हॉकिंग का जन्म हुआ, गौरतलब बात यह है कि 'गेलीली' नामक महान वैज्ञानिक की जन्मतिथि भी उसी दिन है। स्टीफन के पिता डॉक्टर व माँ घरेलु स्त्री थीं। उनके माता-पिता स्टीफन को 'आइंस्टीन' कहकर पुकारते थे। इन्हें प्रारंभ से ही गणित में रुचि थी परंतु उनके पिता उन्हें डॉक्टर बनाना चाहते थे। उस समय गणित विषय विकल्प के रूप में न होने के कारण उन्होंने भौतिकी में आगे की पढ़ाई की। तत्पश्चात भारतीय वैज्ञानिक जयंत नार्लीकर के सुझाव पर व अपनी पसंद को ध्यान में रखकर कोस्मोलोजी विषय का चयन किया। एक दिन अचानक उन्हें कमजोरी व बार-बार बेहोशी का अहसास हुआ। उन्हें पता चला कि वह एक न्यूरोन मोटार डीसीएस नामक बीमारी की चपेट में हैं। विश्वास नहीं होता कि 21 वर्ष की आयु में न्यूरोन मोटार डीसीएस नामक बीमारी से लड़ने वाले स्टीफन हॉकिंग ने हार नहीं मानी और अपनी दृढ़ इच्छा शक्ति और दिल में कुछ करने का जुनून लिए डॉक्टरेट पूरी की। इन्होंने ब्रह्मांड, बिग बैंग और प्रकृति पर बहुत काम किया। इसके लिए इन्हें अलबर्ट आइंस्टाइन पुरस्कार, मूलभूत भौतिकी पुरस्कार, कोप्ले पदक, जैसे छोटे-बड़े कुल बारह पुरस्कारों से सम्मानित किया गया। आज भले ही वे हमारे बीच नहीं हैं मगर उनसे मिलने वाली प्रेरणा, कुछ कर दिखाने का जुनून व कभी न हार मानने की सीख मिलती है।

संकलित

महक शर्मा

## विज्ञान

वर्तमान युग को यदि 'विज्ञान का युग' कहा जाए तो कोई अतिशयोक्ति नहीं होगी। आज विज्ञान मनुष्य-जीवन के प्रत्येक पहलू में समाहित हो कर उसे संचालित कर रहा है। विज्ञान-रहित जीवन की तो आज कल्पना भी नहीं की जा सकती। मनुष्य ने विज्ञान के बल पर अनेक प्रकार की उपलब्धियाँ प्राप्त की हैं। चिकित्सा के क्षेत्र में विज्ञान की सहायता से ही अनेक असाध्य समझी जाने वाली बीमारियों का उन्मूलन हो चुका है तथा कई अन्य गंभीर बीमारियों का उन्मूलन निकट भविष्य में होने की संभावना है। इस क्षेत्र में नित नए आविष्कारों तथा अनेक प्रकार की शल्य-चिकित्साओं आदि के कारण मनुष्य के जीवन में अभिवृद्धि हुई है। विज्ञान का कहाँ तक वर्णन किया जाए, उसकी उपयोगिता अवर्णनीय है। आज विज्ञानरहित मानव जीवन की कल्पना नहीं की जा सकती परंतु कुटिल और स्वार्थी मानव-प्रवृत्ति ही विज्ञान की उपादेयता में अवगुणों की सृष्टि करती है। जिस विज्ञान का लक्ष्य ही मानव को निरंतर सुख और सुविधा प्रदान करना है, उसी विज्ञान द्वारा भयावह और अनिष्टकारी कार्य भी सम्पन्न हो रहे हैं। आज मानव को अकर्मण्य और भोगवादी बनाने में वैज्ञानिक आविष्कारों का ही अधिक हाथ है। बस, स्कूटर, कार अथवा रिक्शा के बिना हम एक पग भी चलने में असमर्थता का अनुभव करते हैं परंतु यह तो सदुपयोग तथा दुरुपयोग पर आश्रित है। मनुष्य को विज्ञान से मानव हितकारी काम ही लेने चाहिए। मानव को नष्ट करने वाले शस्त्रों की रचना और प्रयोग से दूर ही रहना चाहिए। अंततः दैनिक जीवन में विज्ञान का महत्त्व बढ़ता जा रहा है।

देश में सन् 1986 से प्रति वर्ष 28 फरवरी को राष्ट्रीय विज्ञान दिवस मनाया जाता है।

प्रोफेसर सी.वी. रमन (चंद्रशेखर वेंकटरमन) ने सन् 1928 में कोलकाता में इस दिन एक उत्कृष्ट वैज्ञानिक खोज की थी, जो 'रमन प्रभाव' के रूप में प्रसिद्ध है। रमण की यह खोज 28 फरवरी 1930 को प्रकाश में आई थी। इस कारण 28 फरवरी राष्ट्रीय विज्ञान दिवस के रूप में मनाया जाता है। इस कार्य के लिए उनको 1930 में नोबेल पुरस्कार से सम्मानित किया गया था। इस दिवस का मूल उद्देश्य विद्यार्थियों को विज्ञान के प्रति आकर्षित करना, प्रेरित करना तथा विज्ञान एवं वैज्ञानिक उपलब्धियों के प्रति सजग बनाना है।

**अम्बिका वर्मा**  
10 ROUSSEAU

## विज्ञान व तकनीकी विकास

आजकल की दुनिया में तकनीकी विकास ने सबका जीवन बदल दिया है। हर बच्चा और बड़ा अपनी ज़िंदगी में इस सुविधा का भरपूर प्रयोग करता है। पिछले दस वर्षों में हर छोटी-बड़ी चीज़ का चेहरा बदल गया है। फोन पतले हो गये हैं और पैसा काग़ज़ से प्लास्टिक में बदल गया है। हर घर में आज इंटरनेट की उपलब्धि है। पहले एक फोन कॉल करने के लिए दो से तीन सप्ताह इंतज़ार करना पड़ता था, आज दुनिया की हर तरफ की जानकारी हमारी अँगुलियों पर है। अपने किसी भी मित्र व रिश्तेदार से ऐसे बात की जा सकती है, मानो आमने-सामने हों। लेकिन यह सब कुछ एक सिक्के का सिर्फ़ एक पहलू है। आजकल के बच्चे दुनिया की हर जानकारी से वाकिफ़ हैं। अपनी उम्र से पहले हर विषय की जानकारी पाकर वे समय से आगे भागने लगे हैं। विज्ञान जहाँ एक ओर वरदान है, वहीं दूसरी ओर एक अभिशाप भी है। मानव का यह बढ़ता विकास धर्तरी के साधनों को तेज़ी से ख़तम कर रहा है। इन बातों का केवल यही सार है कि कोई भी विशेष ज्ञान उचित मात्रा में ही पचाया जा सकता है अन्यथा परिणाम अवनति का मार्ग भी दिखा सकता है। मानवता को बचाने के लिए, प्रकृति के साधनों को बचाने के लिए व नैतिक मूल्यों के विकास के लिए सभी को एकजुट होना चाहिए।

**अन्वेश अग्रवाल**