



LIGHTHOUSE



BY BCGIANS, FOR BCGIANS

Dear Readers,

Welcome to the February Edition of Lighthouse.

National Science Day is an annual celebration on February 28, to commemorate the discovery of the Raman Effect by Sir C.V. Raman. This day serves to honour scientists' significant contributions, foster a scientific temper, and emphasize the pivotal role of science in our lives. Beyond celebrating achievements, it pays tribute to the relentless pursuit of knowledge that has shaped our world. Science is hailed as a beacon of hope, a source of wonder, and a key to the future.

In this newsletter, the focus is on the importance of science, societal impact, and its role in shaping the future. Science is described not merely as a subject but as an embodiment of human exploration, guiding us through the mysteries of the universe. Science Day is depicted as a celebration of the human spirit's unyielding quest for knowledge and progress. The call to embrace the day as an opportunity to reignite curiosity, engage in open scientific dialogue, and collectively work towards a more sustainable future is emphasized.

The newsletter also addresses the International Day of Women and Girls in Science by sharing a few examples of their leading roles in ground-breaking research worldwide. While women constitute only 33.3% of researchers globally, the need for continued efforts to achieve gender equality in science is acknowledged. The message is one of determination and steady progress toward creating a world where gender equality in science is a reality, fostering an environment where everyone, irrespective of gender, can contribute to the advancement of knowledge and the betterment of society.

By the Editorial team

THE CONNECTION BETWEEN EARTH AND SPACE (MY SCI-FI SAGA)

In a small town on the outskirts of one of the colonies, lived a small girl named Arya. She was a curious and imaginative sixth grader who often dreamed of exploring the unknown realms of space. Arya's parents worked in a nearby research center, studying alien species.

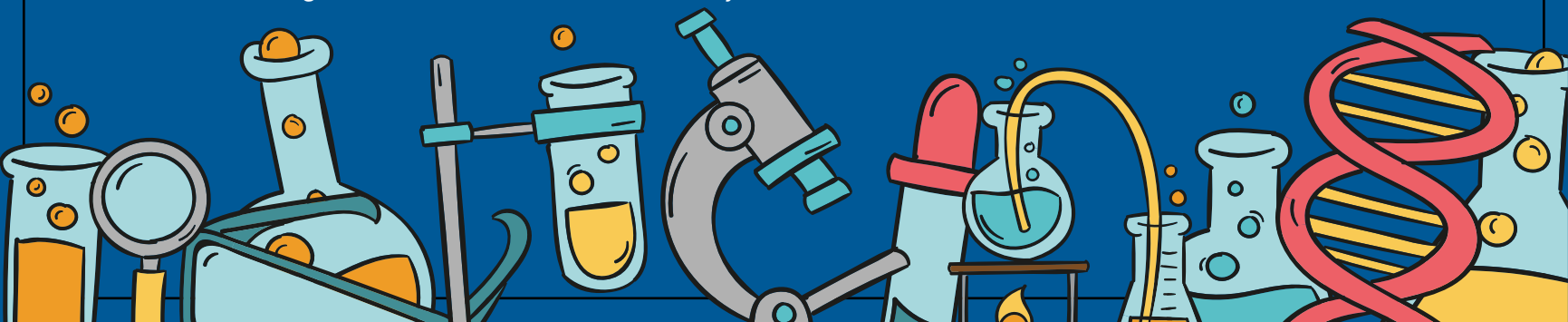
One day, a spaceship crash-landed near Arya's town. The town's people were startled and didn't know what to do. Arya, who had an adventurous spirit, decided to inspect. She approached the damaged ship, and to her surprise, she discovered a survivor inside.

The survivor, named Vihana, was an alien from the planet Mars. She had been sent on a mission to gather information about the planet Earth, but her spaceship stopped working. Vihana was very grateful for Arya's help and decided to share her knowledge with her new friend. As the days

passed, Arya and Vihana became friends. Vihana taught Arya about the technologies and secrets of space.

Vihana realized that Planet Earth had great potential, but she was missing her friends and family on Mars and knew that she had to leave Earth one day. Together Arya and Vihana decided to contact the space community. Arya contacted her parents and told them about the crash of the spaceship. Word spread quickly, and the government decided to help Vihana. Arya became the hope for the people of Earth as she was the connection between Earth and space. Ultimately, Arya's dream of space exploration came true, all thanks to Vihana.

**Submitted by Arya Meawala
Grade 6, BCISE**



IF I WERE A SCIENTIST...

India has given this world many great scientists such as Sir C.V. Raman, Dr. Homi Bhabha, and Dr. A.P.J Abdul Kalam, I admire them all. At times I keep thinking, if I become a Scientist, what can I do for my country, my people, and most importantly for all living beings on this Earth? How can I be useful for the well-being of our society? How can I help preserve our natural resources?

If I become a scientist, helping mankind to live a better and healthy life, will be the first thing I will work on. I will work hard to invent superior and effective medicines that are affordable to people across various income brackets. I will try my best to end human suffering.

As a scientist, I will request all the scientists of the world to use nuclear energy only for the well-being of mankind. I will also see how I can find new ways to restore our precious natural resources. I will constantly try to make this world a better place to live.

Submitted by Shaurya Gawli
Grade 6, BCISE



WHIMSY'S WONDEROUS JUMBLE (MY SCI-FI SAGA)

In the colourful hamlet of Quantum Springs, where reality was a kaleidoscope of possibilities, a naughty genius named Professor Whimsy accidentally released the "Jumbleizer." This strange gadget transformed the townspeople's daily routines into joyous chaos. The town spun into an unpredictable carnival of upside-down houses and gravity-defying bicycles, and laughter reverberated through the streets. Whimsy, realizing the gravity of the situation, began on a humorous mission to undo the Jumbleizer's effects. Whimsy and her diverse companions explored distorted reality with a bizarre variety of gadgets. They experienced dancing-offs and floating donuts, along with a talking cat named Serendipity and a robot dubbed JovialBot who loved to tell jokes.

Whimsy experimented with the Jumbleizer's control panel in a climactic scene in the town square. The universe shimmered and giggled before reverting to some kind of order. The locals, who had grown to enjoy their unusual adventures, cherished the enchantment of unpredictability.

As the credits rolled in Quantum Springs, the locals, young and old, gathered for a spectacular funfair. Offering cupcakes with a Jumbleizer motif, Whimsy boldly stood amidst laughter and confetti. After being apprehensive about change, the residents of Quantum Springs now welcomed the delicious unknown and treasured the knowledge that occasionally a little chaos may bring the greatest unexpected joys.

Submitted by Raneem Solkar
Grade 9, VBSIS



APJ ABDUL KALAM – A SCIENTIST WHO INSPIRES ME!

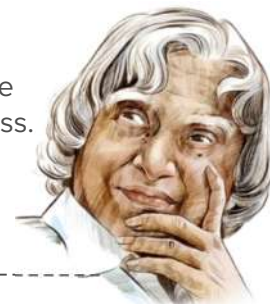
APJ Abdul Kalam, born on 15 October 1931, was an Indian aerospace scientist who, among all of his successful roles, had also served as the 11th President of India from 2002 to 2007 and was fondly called the People's President. He was often called the 'Missile Man of India' due to his tenure at DRDO where he led many successful missile programs. He also served as the Project Director of ISRO and launched the first satellite launch vehicle designed and produced indigenously.

The reason Abdul Kalam inspires me is because of his verbal flair and boldness. He had a modest and down-to-earth personality. He had a 'never say die' attitude. He was very fond of children and was an amazing teacher. He would explain every concept in the simplest terms ensuring everyone understood and loved to share his experiences so we could learn from them. Every speech of his was quite motivating and made one feel that with perseverance we can also achieve our goals just like him.

All through his life he remained committed to Science and Technology and used it for the betterment of our country. He achieved many feats not only for himself but for his country too and taught us all a lesson on patience, and persistence. He lived his life following his own words: "If you want to shine like a sun, first burn like a sun."

What a wonderful way to understand his life goals and imbibe the same for one's success.

Submitted by Sherman Bawa
Grade 7, DSRISM



IF I COULD DESIGN A ROBOT SPECIALLY FOR CHILDREN...

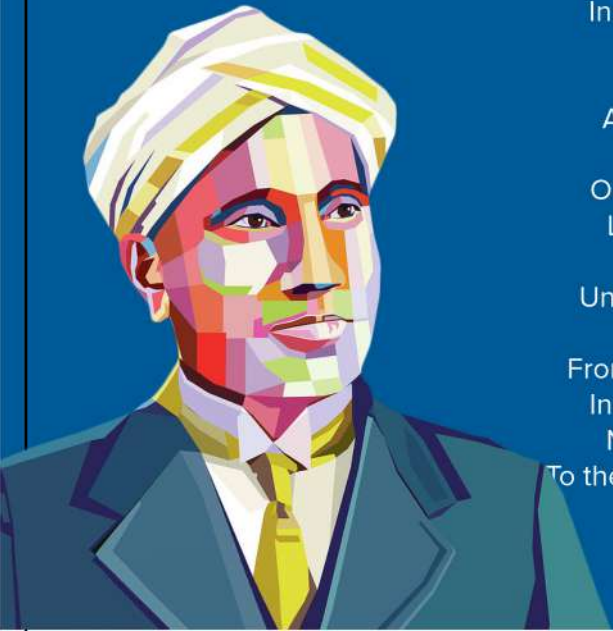
Designing a robot solely for kids has to be carried out with a great sense of responsibility, keeping in mind the influential impact it can have on kids. The enormous boom in Artificial Intelligence and Robotics being witnessed globally presents a multitude of opportunities to revolutionize education. I would design a robot, which could execute varied mundane yet significant tasks of our monotonous world.

For instance, this robot will help any child link their inquisitive mind and questions, with any concept in the academic world. This will help the children to study well and also possess a balance between the real and the fictional world. The robot I design will facilitate a child's development in both emotional and educational domains; fostering curiosity, creativity, and emotional well-being, unveiling countless possibilities for the child's progress in the real world.

Submitted by Vaishnavi Sahu
Grade 7, DSRISM



HARMONY OF DISCOVERY: A NATIONAL SCIENCE DAY ODE

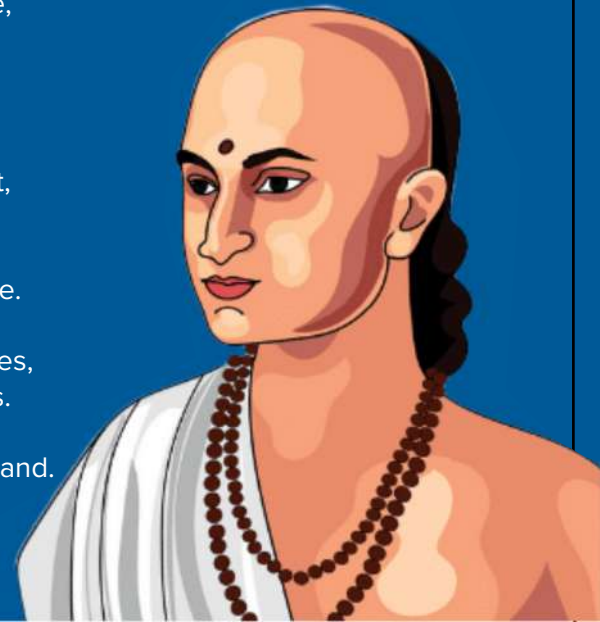


In the land where the peacock dances free,
A celebration of knowledge, a jubilee.
India's National Science Day, a hymn,
A melody of discovery that lights the dim.

On this day, we honor Sir C.V. Raman's feat,
Light scattering whispers, secrets sweet.
The Raman Effect, a scientific rhyme,
Unveiling nature's beauty, transcending time.

From Aryabhata's creations to modern strides,
India's scientific spirit in every heart abides.
National Science Day, a tribute so grand,
To the brilliance of minds, across this diverse land.

Submitted by Rohan Kamath
Grade 8, DSRISB



TECH VISIONARY INSPIRATION: THE IMPACT OF SUNDAR PICHAI ON MY ASPIRATIONS

Sundar Pichai, the CEO of Google, stands as my most profound inspiration. Renowned for his technological innovations and eloquent speaking, Pichai has significantly shaped Google's success. His contributions include refining Google Chrome and enhancing search engines. Intrigued by his impactful role in the digital age, I aspire to emulate his achievements in the technological realm. Pichai's influence extends beyond his professional accomplishments; I admire his educational journey, lifestyle, body language, and motivational quotes. His famous words, "Follow your dreams and heart," resonate deeply with me, emphasizing the importance of perseverance and self-confidence. As an Indian, Pichai's ascent to Google's CEO serves as a powerful motivator, fuelling my ambition to make a meaningful impact in the tech world.

Submitted by Rhythm Rathod
Std. 8, DSRVB



A SCIENTIST WHO INSPIRES ME - ALBERT EINSTEIN

Albert Einstein, one of the most influential scientists in history, revolutionized physics with his theory of relativity, showcasing an unparalleled intellectual prowess. Born in 1879 in Germany, his groundbreaking equation $E=mc^2$ became emblematic of the interplay between energy and mass. Awarded the Nobel Prize in Physics in 1921 for his explanation of the photoelectric effect, Einstein's contributions extended beyond theoretical physics to profound philosophical reflections on space, time, and the nature of the universe. His enduring legacy extends to his advocacy for peace, civil rights, and scientific inquiry, making him an iconic figure whose brilliance and humanitarian values continue to inspire scientists and thinkers across the globe.

Submitted by Heba Ansari
Grade 7, BCISW



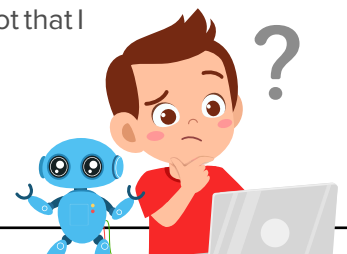
IF I COULD DESIGN A ROBOT...

The presence of technology is ever-increasing and this impact can be seen in the rise of Robots too. Robots not only serve as excellent sources of information, especially for individuals keen on science and technology but also perform tasks beyond one's imagination. In today's fast-paced world, where parents may have limited time for their children, a multifunctional robot could prove to be an invaluable resource. Imagine a robot designed to assist students with their studies, daily activities, and chores without making them dependent on the robot in the long run. This robot can be a versatile companion capable of supporting children in various areas, helping them pursue their dreams.

The robot needs to be affordable, durable, and energy-

efficient, with a low battery consumption rate to facilitate continuous support throughout the day. Beyond academics, the robot can play a dual role, acting as both an educational guide and an emotional companion. Through touch-reactive interactions, the robot can respond to children's emotions, fostering a unique bond. By incorporating conversational abilities, the robot can engage with kids, making tasks enjoyable and motivating them to complete their work promptly. With children's pure hearts, the robot can become not just a helpful assistant but a cherished friend, guiding them toward success. This is the robot that I envision I would create.

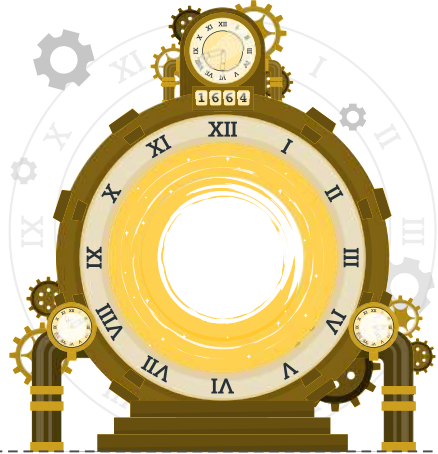
Submitted by Samarth More
Std. 9, VBSV



THE TIME MACHINE (MY SCI-FI SAGA)

Amid a scorching summer afternoon, young Alex ventured into his grandfather's workshop, stumbling upon a strange relic labelled, 'The Time Machine.' Ignoring all warnings, he activated it. Suddenly, darkness enveloped him, and he found himself amidst towering dinosaurs and pterodactyls. Overwhelmed with fear, Alex desperately sought a means of escape as the machine malfunctioned, leaving him stranded in trouble. Racing against time he discovered a hidden code. With a determined effort, Alex cracked the hidden code and pressed the activation button. Blinking, he found himself back in his grandfather's workshop, the Time Machine silent at his side. Grateful and shaken, Alex vowed to pay attention to warnings and be more cautious in the future, mindful of the risks that come with curiosity.

Submitted by
Bhuvanesh Shetye
Grade 7, BCISW



REVIEW OF THE MOVIE – INTERSTELLAR

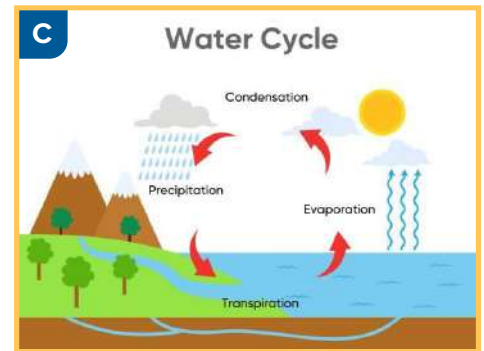
'Interstellar' is a cool science fiction movie about space! It tells an exciting story about exploring the universe and even talks about some tricky things like paradoxes. If you're into space and love mysteries, you should check it out! The movie teaches us an important lesson about how sometimes we have to make big sacrifices for the greater good. Plus, the visuals are so amazing that you'll feel like you're out in space! And the best part? Almost everything in the movie is true and accurate, provided by a real space expert (Space Explorer)! The best part about the movie is about emotions. I feel as if the emotions are perfectly acted, and it talks about how much kids love their parents and how their bond could never be broken.



Submitted by **Naytik Patel**
Grade 7, BCISW

GUESS THE PROCESSES TAKING PLACE IN THE IMAGES BELOW

Hint – Science In Daily Life!



Answer Key: A) Reflection B) Boiling C) Water Cycle

GUESS THE ACTIVITIES TAKING PLACE BASED ON THE IMAGES BELOW.

Hint – Scout Activities



Answer Key: A) Camping B) Campfire C) Trekking

ASSOCIATE EACH PROFESSIONAL WITH THE CORRESPONDING IMAGE REPRESENTING THEIR OCCUPATION



Botanist

Archaeologist

Astronomer

Zoologist

Marine Biologist

Geographer

Biologist

Physicist



Answer Key:

	Astronomer		Botanist		Zoologist		Archaeologist		Biologist		Marine Biologist		Physicist		Geographer
---	------------	---	----------	---	-----------	--	---------------	---	-----------	---	------------------	---	-----------	---	------------

GUESS WHO AM I

1. I discovered a tiny energy packet of electromagnetic radiation. Guess who I am?
2. The first subatomic particle electron was discovered by me. Guess who I am?
3. I was awarded the Nobel Prize in 1935 for the discovery of neutrons. Guess who I am?
4. Electrostatic attraction and repulsion were discovered by me. Guess who I am?
5. I have been described as “America's Greatest Inventor”. I developed many devices in fields like mass communication and electric power generation. Guess who I am?
6. I was the first woman to win a Nobel Prize. I am most famous for the discovery of Polonium and Radium. Guess who I am?
7. I have produced and detected electromagnetic radiation in a wavelength range known as X-rays. Guess who I am?



Answer Key:
 1. Albert Einstein
 2. J.J Thomson
 3. James Chadwick
 4. Charles-Augustin de Coulomb
 5. Thomas Edison
 6. Marie Sklodowska-Curie
 7. Wilhelm Conrad Röntgen

INTERESTING READ

Contribution of Indian women scientists

“Technique and ability alone do not get you to the top; it is the willpower that is most important.” Many women scientists in India play an important role in the social-economic development of a nation. For over 100 years women scientists in India have proven their strength and made great contributions to the scientific growth of the country.

Anandibai Joshi, the first Indian woman to obtain a medical degree in the Western hemisphere, was born on March 31 1865 in Pune, India. She was the first lady to complete medical education in the USA. **Kamala Sohoni** was an Indian biochemist who in 1939 became the first Indian woman to receive a PhD in a scientific discipline. **Rajeshwari Chatterjee** is the first woman scientist to pioneer the field of Microwave Engineering and Antennae

Engineering in India. **Tessy Thomas**, known as the ‘Missile Woman’ of India is the first woman scientist to head a missile project in India. She designed the guidance scheme for long-range missile systems which is used in all Agni missiles. **Gagandeep Kang**, a virologist and scientist, is known for her interdisciplinary research in development, and prevention of enteric infections and their sequelae in children in India.

In conclusion, women leaders in science bring a fresh perspective to the field that is essential for driving innovation and progress. Their diverse experiences allow them to approach scientific problems in unique ways leading to discoveries and innovations.

Submitted by **Diya Jethwa**
Std. 7, DSRVM



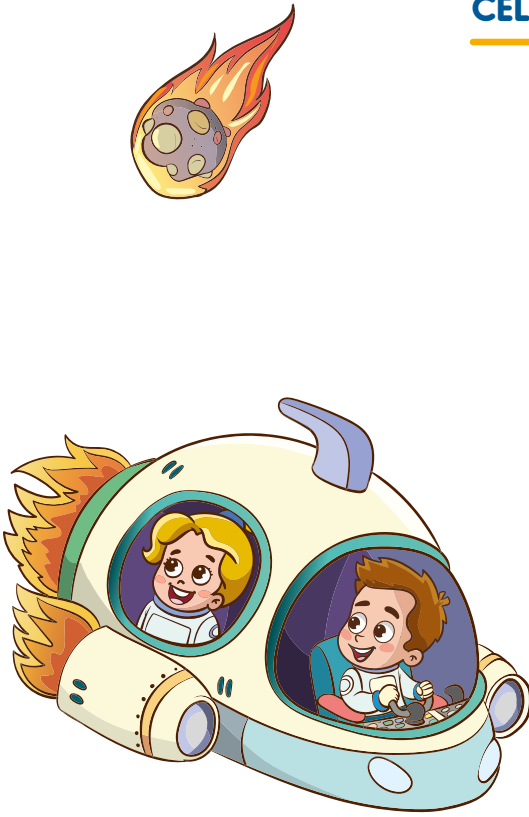
ARTIST OF THE MONTH



Submitted by **Pankhuri Mehrotra**
Grade 8, VBSIS

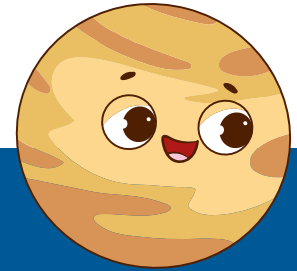
CELEBRATING THE ILLUSTRIOUS BCG ALUMNI

Dream Big – Set Goals – Take Action



Lt. Col. Samarkant Sharma
Batch of 2002

Currently serving Indian Army



SCHOOL CORNER

My Role as a Science Teacher

Today when I sit and think about my past, years ago I had not formed a definite opinion of which profession would suit me the best. At different times I had toyed with the idea of being a doctor, an engineer, and a journalist. Then an incident made me realise that deep within I had instincts of becoming a teacher and science teacher, of course.

Science has always been my personal favourite due to several reasons. I had good science teachers in my school and college life who were like a source of inspiration for me. I believe that through teaching science I can modify the thinking process of my students. I would like to quote Carl Sagan, "Science is a way of thinking much more than just a body of knowledge." As a science teacher in a school, I feel I play a crucial role in shaping young minds and nurturing the next generation of scientists, engineers, and critical thinkers. My responsibilities go beyond simply delivering rote knowledge; I extend my duty as an architect of curiosity, a guide in exploration, and an inspiring mentor who sparks a lifelong love for the natural world among my students. I feel as a science teacher I can arouse curiosity and cultivate a spirit of scientific inquiry in my students, encourage them to ask questions, challenge assumptions, and think critically about the world around them. My role extends beyond the four walls of the classroom to get involved in extracurricular activities related to science, such as science clubs, Olympiads, or environmental initiatives to channel the activities of students.

Teaching science has helped me evolve as a person as well. It has brought about a change in my way of thinking and helped me develop a positive attitude towards life.

Science and society have a reciprocal relationship, where each has influenced the other over time. It makes me feel proud to say that I touch the future of the world i.e. children. So, I believe that I can bring about change, by creating a productive society for the betterment of a nation, through my subject and students.

Ms. Sabiya Shaikh
Science Teacher – Secondary Section
VBSV



Did you like our newsletter? Do send your feedback and share your stories of positivity in real life.
Be a part of the movement to build a positive and a harmonious society.

Write to us at lighthouse.bcg@gmail.com