

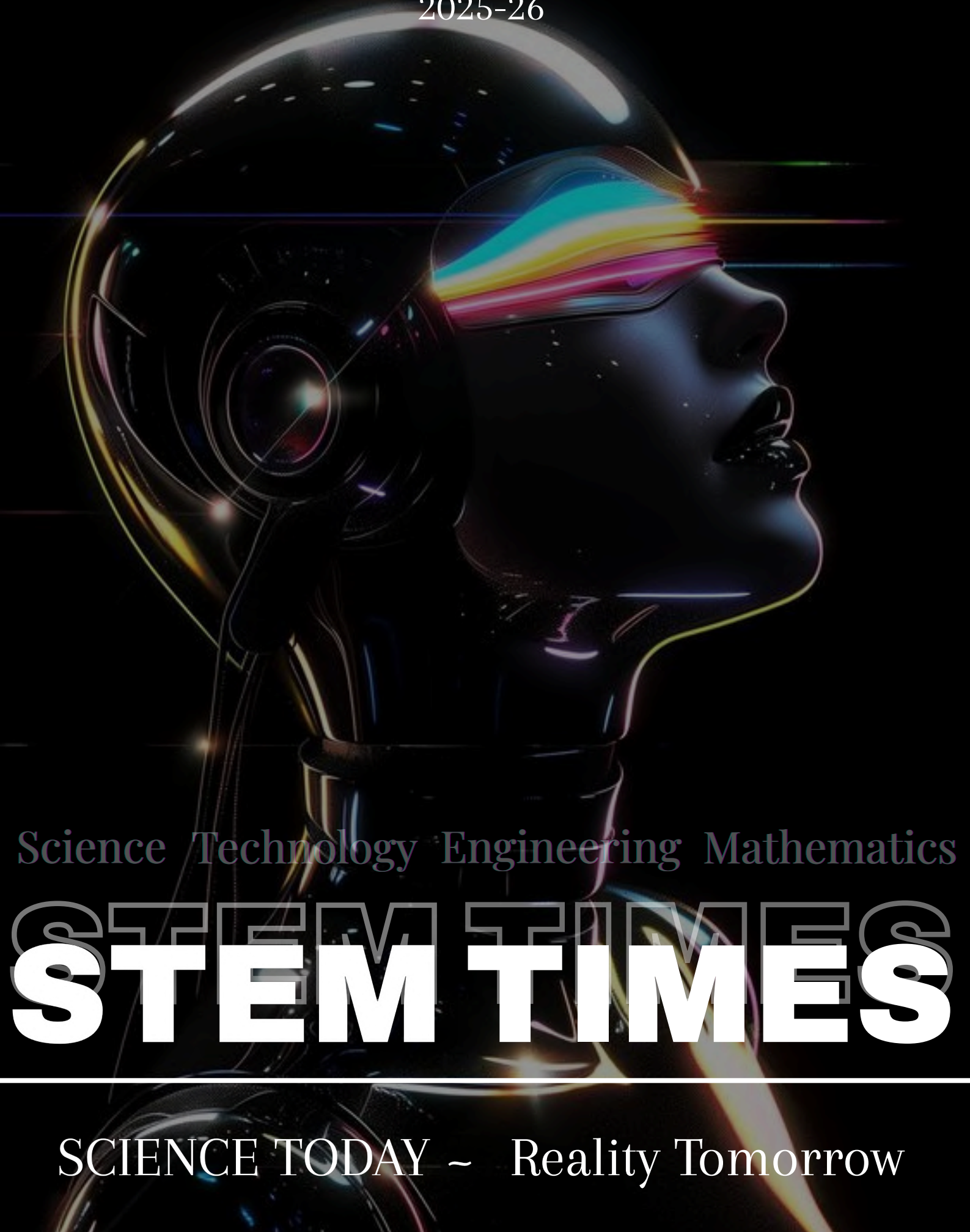
Volume 3

St. Agnes' Loreto Day School  
SCIENCE AND MATHEMATICS CLUB

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2025-26



Science Technology Engineering Mathematics

# STEM TIMES

SCIENCE TODAY ~ Reality Tomorrow

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# CLUB MISTRESS' ADDRESS



It is a matter of great pride and joy to present this year's edition of our Science Magazine- STEM Times, a testament to the curiosity, creativity, and dedication of our young scientific minds.

In an era where science and technology shape the future, it is essential to nurture inquisitiveness and innovation among students. This magazine serves as a platform for exploring diverse topics, sharing discoveries, and celebrating the wonders of science that fuel our imaginations and inspire progress.

I am incredibly proud of our club members for their relentless efforts in compiling articles and presenting ideas that reflect their passion for learning. I also extend my heartfelt gratitude to the teachers and mentors who guided and supported the students throughout this journey.

May this magazine ignite a spark of curiosity in every reader, motivating them to embrace science as a path to understanding and improving the world around us.

Ms. A. Kaur  
Science Club Mistress



# PRESIDENT'S ADDRESS



"How do you say goodbye to something that built you?"

Writing this feels surreal. It's the third volume of The STEM Times — and my last as the President of the Science Club. As I reflect on this moment, I carry not just memories, but the weight of a journey that began four years ago. From the Joint Secretary to the Vice President and finally stepping into the role of the President — every step has shaped me in ways I'll always be grateful for.

From the early club meetings where I barely spoke up, to now leading a team of brilliant, energetic minds — it's been a beautiful evolution. The Science Club wasn't just an extracurricular for me. It became home. A place where I learnt to lead, to listen, to create and to collaborate. A place where we questioned everything and celebrated curiosity.

This third edition of our beloved newsletter is a testament to that spirit. Each article, each line, carries the voice of passionate students who believe in ideas. Of course there were frantic editing sessions, chaotic Google Docs, and the occasional existential dread over fonts — but it was always fun. The bar was set high with each issue, and I could not be prouder of how far we've come.

To my incredible team — thank you for your endless enthusiasm. You made this dream a reality. To the future club members — you're inheriting something truly special. Let it grow with you.

A heartfelt gratitude to our Principal, Ms. Bunny, for believing in us and giving us the freedom to create. And to our club mistress', your encouragement and guidance held us up through every hurdle — thank you for being our anchors.

As I turn this page and prepare to walk out of these corridors one last time, I leave a piece of my heart behind — in this newsletter and in every young mind it will hopefully inspire. Once a part of the Science Club, always a part of its story.

*Snigdha Pandey*

Snigdha Pandey

President, Science Club

St. Agnes' Loreto Day School



# ARTICLES



A shining star never gets lost in the darkness



# ALIEN OCEANS - ARE WE LOOKING FOR LIFE IN THE WRONG PLACES ?

For decades, the hunt for alien life has fixated on Mars, but what if the answer isn't on the red planet — what if it's hidden beneath layers of ice, in the cold, dark oceans of moons like Europa and Enceladus?

These moons, orbiting Jupiter and Saturn, might not look like the most inviting places at first glance. Their surfaces are covered in thick sheets of ice, and their temperatures are well below freezing. But beneath that frozen exterior lies something far more intriguing: vast, liquid oceans, kept warm not by the Sun, but by the immense gravitational forces of their parent planets. This process, known as tidal heating, could create the perfect conditions for life to thrive, far from the light of distant stars.

What's even more exciting is the possibility that these oceans could harbor alien life. In 2005, NASA's Cassini spacecraft flew through the plumes of Enceladus, discovering organic molecules, water vapor, and salts — all essential ingredients for life. These findings hint at the possibility of hydrothermal vents deep beneath the icy surface, where life might exist in the same way that creatures on Earth survive around ocean vents, without sunlight, in complete darkness.

Europa, too, holds incredible promise. Its ocean could be even larger than Earth's oceans, and with future missions like Europa Clipper, scientists hope to find even more evidence of a hidden, thriving world beneath its ice — perhaps even life, in forms we've never imagined.

The search for alien life is taking an unexpected turn. Instead of looking outward to far-off planets, we might just need to look closer — to the icy moons in our own solar system, where life could be waiting to be discovered beneath the surface.

Snigdha Pandey

12-C



# THE ENIGMA OF WHITE HOLES: A COSMIC FOUNTAIN

Imagine a black hole, that insatiable cosmic drain, but in reverse. This mind-bending concept is the essence of a white hole, one of the most intriguing and perplexing ideas in theoretical astrophysics. While black holes relentlessly suck in everything—light, matter, even time itself—white holes are hypothesized to do precisely the opposite: spew out matter and energy, making it impossible for anything to enter them.

Unlike their well-established black hole counterparts, which are routinely observed through their gravitational effects, white holes remain purely theoretical. They emerge from the equations of Einstein's general relativity, much like black holes did, but with a crucial difference in their spacetime geometry. Think of it this way: a black hole has a "future" event horizon, a point of no return for anything falling in. A white hole, on the other hand, would have a "past" event horizon, meaning nothing can ever cross it to enter. It's like a cosmic fountain that can only expel, never absorb.

So, where could these fantastical objects come from? One speculative theory links them to wormholes, hypothetical tunnels through spacetime. Some physicists suggest that a white hole could be the "other end" of a black hole, connecting distant regions of the universe or even different universes. Another fascinating, albeit highly speculative, idea is that the Big Bang itself was a colossal white hole event, spewing forth all the matter and energy that created our universe.

The absence of observational evidence makes white holes a subject of intense debate and fascination. Are they merely mathematical curiosities, or do they represent a hidden, fundamental aspect of our cosmos? Until we find a way to detect these elusive cosmic fountains, white holes will continue to fuel our imagination, pushing the boundaries of our understanding of space, time, and the very fabric of reality. They stand as a powerful reminder that the universe still holds countless secrets, waiting to be unveiled.

Saumishthaa Rawat

12-C



# WHY TIME FLOWS FASTER AS WE GROW OLDER?

Have you ever felt like time is flying by? As kids, summer holidays seemed to last forever. But as adults, weeks and months feel like they pass in a flash. Why does this happen?

Scientists and psychologists have studied this strange feeling. One reason is how we perceive time. When we are young, everything is new. Our brains pay more attention to new experiences. This makes time feel longer because we are collecting lots of memories.

For example, a child's first trip to the zoo is full of excitement. They see animals they've never seen before, smell new smells, and hear new sounds. Their brain is busy recording all of it. But for an adult who has seen many zoos, the trip doesn't feel as long or exciting. It becomes "just another day," and time feels like it passes faster.

Another reason is routine. As we get older, we often follow the same schedule every day—work, school, chores, etc. When days look the same, the brain doesn't need to store as much new information. This creates fewer "markers" in our memory, so time seems shorter when we look back.

Also, each year we live becomes a smaller part of our entire life. For a 10-year-old, one year is 10% of their whole life. But for a 50-year-old, one year is just 2%. So, naturally, it feels shorter.

Some experts say we can slow down this feeling. How? By doing new things. When you travel to a new place, learn a new skill, or meet new people, your brain creates fresh memories. These make your days feel longer and more meaningful.

So, while we can't stop time, we can change how we feel about it. Try doing something different every once in a while. It might just help you enjoy life more and make time feel like it's moving a little slower.

Jeetika Rastogi

12-C



# GPS: THE SCIENCE OF SATELLITE NAVIGATION

Have you ever wondered how your smartphone can pinpoint your exact location anywhere on Earth? The answer lies in a fascinating technology called Global Positioning System (GPS) — a network of satellites, ground stations, and receivers working together to tell you exactly where you are.

GPS, the most prevalent Global Navigation Satellite System (GNSS), is a satellite-based navigation system originally developed by the U.S. Department of Defence. It consists of 31 satellites orbiting about 20,000 kilometers above the Earth. These satellites continuously send signals containing their location and the exact time the signal was sent.

Your GPS device (like your phone or car navigator) receives signals from at least four GPS satellites. By measuring the time it takes for each satellite's signal to reach your device, the GPS can calculate the distance to each satellite. Using a method called trilateration, your device figures out your exact position on Earth — latitude, longitude, and altitude — by intersecting the distances from multiple satellites.

Three satellites are needed to determine your location on a two-dimensional surface (latitude and longitude). The fourth satellite helps calculate your altitude (height above sea level) and corrects any timing errors to improve accuracy.

GPS satellites carry extremely accurate atomic clocks that keep precise time. Because the speed of light is constant, even a tiny timing error can lead to large errors in distance measurement. The atomic clocks ensure timing is synchronized between satellites and receivers.

GPS receivers continuously update their position by receiving signals from multiple satellites and using advanced algorithms to compensate for factors like atmospheric interference and satellite clock inaccuracies.

GPS isn't just for navigation. It's used in aviation, maritime travel, disaster relief, agriculture, mining operations, land surveying

and even in scientific research. It guides airplanes safely through crowded skies, helps emergency services reach accident sites faster and even monitors Earth's movement and changes helpful in seismology, glaciology and other scientific disciplines.

Gargi Agarwal

12-C



# GEOENGINEERING: TO FIGHT CLIMATE CHANGE

Geoengineering refers to using large-scale technologies to help reduce the effects of climate change. In 2025, the UK government began testing some geoengineering techniques to see if they could help cool down the planet. One idea is to pump sea water over Arctic ice to make it thicker and reduce melting. Another method is spraying particles into the air to reflect sunlight and cool the Earth, similar to what happens after a volcanic eruption.

Scientists are also looking at ways to brighten clouds over the oceans to reflect more sunlight or thin certain clouds that trap heat. They are even exploring the idea of putting a huge sun shade in space to block some of the Sun rays from reaching Earth. These experiments are in early stages and are being done on a small scale to test their effects. The hope is that if these methods work, they could buy time while efforts to reduce carbon emissions continue. However, there are concerns about the risks involved, such as damaging ecosystems or causing political issues between countries. Experts stress that geoengineering should not replace efforts to reduce pollution, but rather act as a backup plan in case things get worse.

As research continues, it will be important to have clear rules and cooperation between countries to make sure these technologies are used safely and fairly. Geoengineering should be carefully managed to avoid unintended consequences and to ensure that any solutions are effective and equitable.

Avika Patel

12-C



# COSMIC PARALLELISM

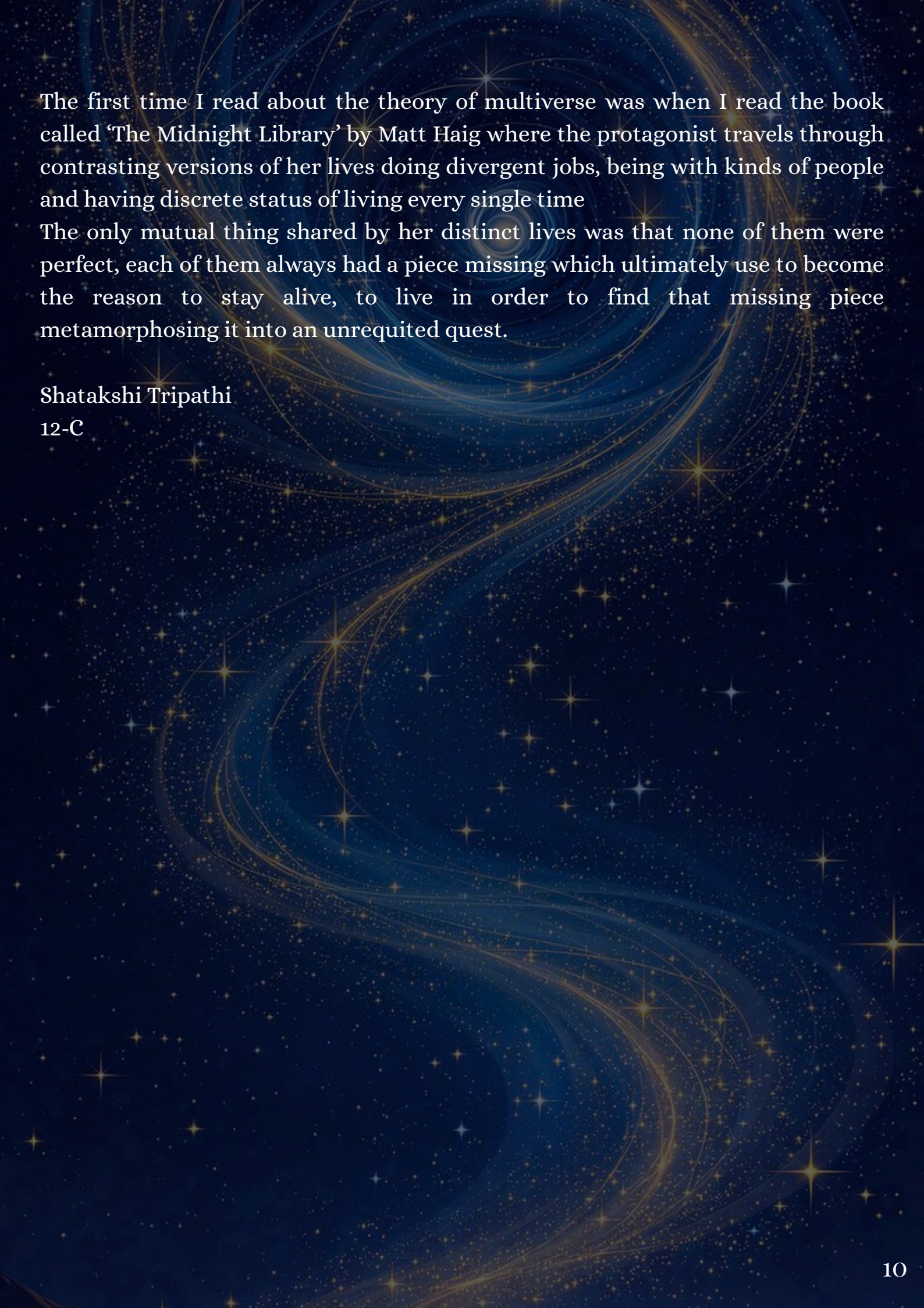
What if I am not the original version of myself? What if there is a multitude of different versions of myself present in the obscurity of the cosmos? Would that just reduce me to a copied version of someone else or what if all the versions existing are just copies of each other with an original version not existing at all. Well isn't this theme of discourse intriguing rather bone chilling cause there is a great possibility that all of these things are true as that is exactly what is proposed by the multiple theories of multiverse.

The theory of multiverse suggests that our universe is not the only one of its kind but there are multiple universes somewhat similar to ours. In the past years many scientists have proposed different theories related to this subject. One of the most popular ones has to be 'The String Theory' proposed by Albert Einstein which suggests that there are more than three dimensions existing, one of them being time.

The other universes are radiated out from ours and ours from the others. Over yonder might've been different outcomes for wars, or there might've been different wars altogether. Russia and America might be sharing a great friendship and they might not even be as powerful as they are here. The most fascinating difference could be the presence of a matriarchal structure of the society. In the other world women might be physically stronger than men or humans might not even be the superior species.

Since we are not talking about just different worlds but different universes altogether then there is a great possibility that distinct versions of ours might not be living on a planet called the Earth, the grass might be blue there and the water might be green. Well, being aware of this phenomenon do make us wish sometimes of being able to live as the other versions of us. What makes it even more fascinating is that other versions of us might be wishing the same for themselves, to be able to live like us. This could definitely become an incentive for us to live with contentment when so many people from so far are envying what we have.





The first time I read about the theory of multiverse was when I read the book called 'The Midnight Library' by Matt Haig where the protagonist travels through contrasting versions of her lives doing divergent jobs, being with kinds of people and having discrete status of living every single time

The only mutual thing shared by her distinct lives was that none of them were perfect, each of them always had a piece missing which ultimately use to become the reason to stay alive, to live in order to find that missing piece metamorphosing it into an unrequited quest.

Shatakshi Tripathi

12-C



# NANOBOTS – TINY ROBOTS, HUGE POSSIBILITIES

Nanobots are incredibly tiny robots, so small that they can move through our bloodstream without being seen. Built using nanotechnology, they are designed to perform specific tasks inside the human body — like destroying harmful cells, delivering medicines directly to a targeted area, or even repairing tissues from within.

This may sound like something out of a science fiction movie, but researchers around the world are working hard to make it a reality.

What excites me the most is how these microscopic machines could change the way we treat serious diseases like cancer or infections. Instead of going through painful surgeries or long treatments, patients might simply be given nanobots that do the job silently and precisely. It's like having thousands of mini-doctors inside your body!

I think this is one of the most amazing examples of how far science has come — from using big machines to now creating tiny ones that may work inside us. Although nanobots are still being tested, I truly believe they could become a normal part of hospitals in the future.

The idea that something smaller than a cell could save lives is both mind-blowing and inspiring.

I would love to witness this technology in real life someday.

Shreya Jain

11-C



# CARBON FOOTPRINT

A carbon footprint is the total greenhouse gas emissions caused by an individual, event, organisation, service or product, expressed as carbon dioxide equivalent. Greenhouse gases, including the carbon containing gases carbon dioxide and methane, can be emitted through the burning of fossil fuels, land clearance and other services.

In most total carbon footprint cannot be calculated exactly because of inadequate knowledge of data about the complex interactions between contributing processes including the influence of natural processes that store or release carbon dioxide. For this reason Wright, Kemp, Williams proposed the following definition of Carbon Footprint.

A measure of the total amount of carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>) emissions of a definite population, system or activity, considering all relevant sources, sinks and storage within the spatial and temporal boundary of the population, system or activity of interest is calculated as carbon dioxide equivalent using the relevant 100-year Global warming potential (GWP<sub>100</sub>).

Options to reduce carbon footprint of humans include REDUCE, REUSE, RECYCLE, REFUSE. This can be done by using reusable items such as thermoses for daily coffee or plastic containers for water and other cold beverages rather than disposable ones. If that option is not available, it is best to properly recycle the disposable items after use. When one household recycles at least half their household waste, they can save 1.2 tons of carbon dioxide annually.

Another option for reducing the carbon footprint of humans is to use less air conditioning and heating in the home. By adding insulation to the walls and attic of one's home, and installing weather stripping, or caulking around door and windows one can lower their heating costs more than 25 percent. An option is to drive less. Walking, biking, carpooling, mass transportation and combining trips result in burning less fuel and releasing fewer emissions into the atmosphere.

Shreya Subhashish

11-C



# INTO THE DARK : CHASING THE UNKNOWN

Dark matter is the mysterious stuff that fills the universe but no one has ever seen. Its existence is inferred because, without it, the behavior of stars, planets, and galaxies would be unexplainable. Its existence is known only through the gravitational effects it has on galaxies, stars, and other cosmic structure. However, despite building sensitive detectors underground and in space, dark matter has never been directly observed. Dark matter has gravity, which means it can pull things toward it—even if we can't see it!. The invisible and undetectable by traditional instruments, dark matter is believed to make up about 27% of the universe's total mass-energy. It does not emit, absorb, or reflect light, but its gravitational influence is essential to understanding how the universe behaves. Dark matter also impacts the cosmic microwave background (CMB), the faint glow left over from the Big Bang. Tiny temperature fluctuations in the CMB provide clues to how dark matter influenced early cosmic growth. Scientists have not yet observed dark matter directly. But scientists are confident it exists because of the gravitational effects it appears to have on galaxies and galaxy clusters. Scientists now think that the accelerated expansion of the universe is driven by a kind of repulsive force generated by quantum fluctuations in otherwise "empty" space. What's more, the force seems to be growing stronger as the universe expands. For lack of a better name, scientists call this mysterious force dark energy.

Ananya Sharma

11-C



# SPACE BEYOND VISION

It is in the human nature to strive for things that seem nearly impossible . One of such topics is the extension of space . It has been for centuries that scientists and physicists have been trying to figure out the dimensions and extensions of the universe . Although we have certain theories for it but it seems nearly out of thought to get the right answer. Space isn't just a mystery but a never ending exploration for the human race. While for some it might be just a mere topic of conversation , it is indeed one of the biggest investments of humans. Space exploration has long captured the human imagination, invoking feelings of wonder and curiosity about the universe beyond our home planet. The field of space exploration has benefited enormously from technological innovations. Satellites and robotic spacecrafts help us in collecting varied data about space and life . One of the most compelling questions about the space discovery is about the existence of life beyond our planet. The search for biosignatures, or signs of life, is driving research and exploration, igniting excitement across the scientific community and beyond. In conclusion space exploration is a testament to human ingenuity and determination. As we continue to reach for the stars, each mission and discovery brings us one step closer to understanding our place in the universe. The quest to explore space remains one of humanity's most exciting and ambitious endeavors.

Gareema Saxena

10-B



# THE MYSTERIOUS WORLD OF DREAMS

Dreams are a mysterious and fascinating aspect of human life. While we sleep, our brain creates vivid images, emotions, and experiences that can be both thrilling and unsettling. But what are dreams, and why do we have them? Dreams like threads in the fabric of our minds, weaving together memories, emotions, and experiences.

When we sleep, our brain goes through different stages, including REM (Rapid Eye Movement) and NREM (Non-Rapid Eye Movement) sleep. REM sleep is when most dreams occur, and our brain becomes active, processing memories and emotions. For example, research has shown that during REM sleep, brain activity is similar to that of being awake, which may contribute to the vivid nature of dreams.

-Memory Consolidation: Dreams may help us process and consolidate memories, transferring information from short-term to long-term storage. For instance, studies have shown that people who are learning new skills often dream about those skills, which can aid in memory consolidation.

Emotion Regulation: Dreams can help us work through challenging emotions and experiences, reducing stress and anxiety. For example, dreams about overcoming fears or anxieties can help build confidence and reduce stress.

Problem-Solving: Dreams may aid in creative problem-solving, allowing our brain to think outside the constraints of reality. A famous example is the story of Elias Howe, who invented the sewing machine after dreaming about a spear with holes in the tip.

Lucid dreaming is the ability to consciously recognize and control our dreams while we're asleep. Some people can recognize they're dreaming and manipulate the content of their dreams. Lucid dreaming can be fun and exciting experience, allowing us to explore our subconscious mind. For example, lucid dreamers can use their dreams to practice skills or overcome fears in a controlled environment.

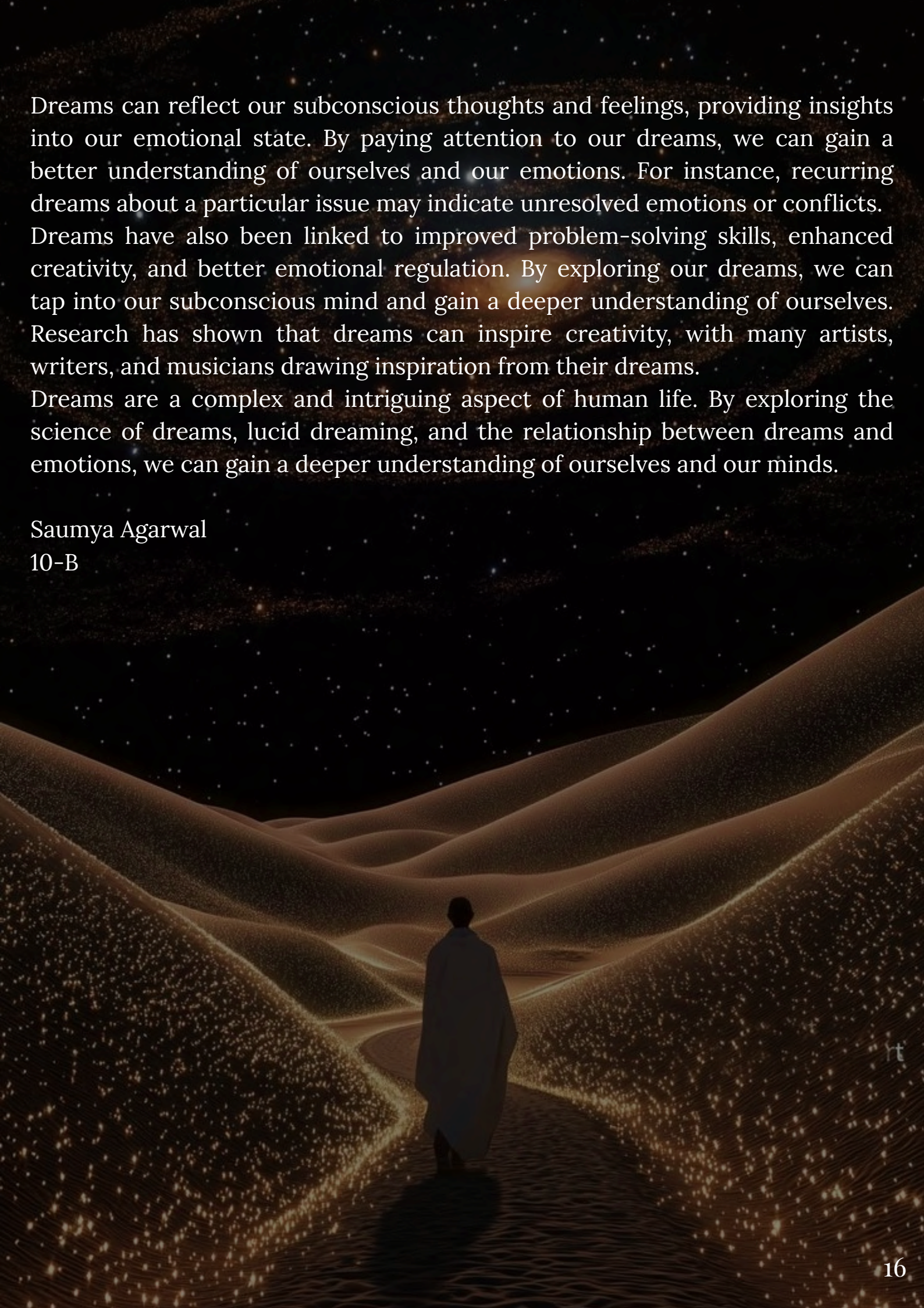


Dreams can reflect our subconscious thoughts and feelings, providing insights into our emotional state. By paying attention to our dreams, we can gain a better understanding of ourselves and our emotions. For instance, recurring dreams about a particular issue may indicate unresolved emotions or conflicts. Dreams have also been linked to improved problem-solving skills, enhanced creativity, and better emotional regulation. By exploring our dreams, we can tap into our subconscious mind and gain a deeper understanding of ourselves. Research has shown that dreams can inspire creativity, with many artists, writers, and musicians drawing inspiration from their dreams.

Dreams are a complex and intriguing aspect of human life. By exploring the science of dreams, lucid dreaming, and the relationship between dreams and emotions, we can gain a deeper understanding of ourselves and our minds.

Saumya Agarwal

10-B



rt



# IF THE SUN DISAPPEARED

If the Sun were to disappear, what would happen in one second, one minute, one day, one week, one month, and a whole year? Let's dive into this terrifying scenario that could give anyone goosebumps. A giant spaceship, roughly the size of our Moon, appears in the solar system. People on Earth are unaware that this spaceship, from another celestial body, has come to take our Sun. Its name is Dyson Sphere.

The Sun is the force that keeps Earth in orbit and stabilizes seasons and climate. The Dyson Sphere is an advanced machine capable of stealing the Sun. As soon as the aliens take the Sun, planets like Earth, Mars, Jupiter, Saturn, Uranus, and Neptune scatter and begin to spin aimlessly in the vast universe. Earth starts drifting in space with no Sun to anchor its orbit. On one side of Earth, it remains day; on the other, night. Everything appears normal at first. People are happy, children go to school, and no one realizes that the most vital element of our solar system is missing. This is because sunlight takes 8 minutes and 20 seconds to reach Earth. So, the effects of the disappearance are delayed.

After 8 minutes and 20 seconds, the Sun's light vanishes. Darkness falls. Stars become visible because there is no sunlight to obscure them. The Moon and other planets disappear from sight. Scientists and citizens are puzzled by this sudden worldwide night. Temperatures begin to drop. People feel the cold, some even shivering. Luckily, Earth's inner core still provides heat, allowing temporary survival. After 24 hours, everyone awaits sunrise. At 8 o'clock, the Sun still hasn't risen. Governments are helpless, as this disaster is beyond human control. Earth's atmosphere retains some warmth through trapped carbon dioxide, helping people survive for now.

After a week, the temperature falls to  $-20^{\circ}\text{C}$ . TVs and the internet stop working. Satellites, which used solar energy, no longer function. Plants die. People can't communicate with their families due to the internet failure. The rich build bunkers to survive the extreme cold. Governments also build shelters for poorer communities. After a month, Earth becomes even colder. The temperature drops to  $-40^{\circ}\text{C}$ . Viewed from space, Earth looks like a frozen white snowball. All plants are dead. Most animals have also perished. However, humans still survive in underground shelters, heated by stored energy. The Sun is not just a source of light—it is the anchor of life on Earth. Without it, our planet would fall into chaos and cold darkness. This imagined situation reminds us of the Sun's silent but powerful role in our everyday lives.

Kulsoom Fatima  
9-B



Shine if, you keep  
fearing  
the  
darkness  
throughout  
your  
life?  
Stand  
in  
the  
light  
and  
you  
will  
see  
him

# Gaelio's Sonnets





# THE FORLORN SAMPLING

The little sapling turned his head,  
As his roots grasped the soil,  
Hues of green stretched ahead,  
Trunks of life beamed with joy;  
The newborn plant met the breeze,  
Calm and cordial as can be,  
Trees, plants, grass and shrubs,  
All embraced him with absolute love.

Days went by and the air shook,  
With the rare visit of ultimate death,  
Disguised as men swinging tools,  
Iron and steel filled them with dread;  
The land stood barren, devoid of green,  
Except the little sapling who weeped,  
Afraid and vulnerable, grieving at the loss,  
Few grown leaves fell with unshed drops.

Deserted and dejected,  
Silent tears filled his vision,  
He knew pain and misery was predicted,  
Fate had pulled the strings of envision;  
His trunk that was once upright,  
Was now a branch, thin but fine,  
The plant was miserable after the tragedy,  
Hate and disgust is all he felt for humanity

The little sapling was not alone,  
To witness a crime forbidden by nature,  
Tales like these are a warning unknown,  
To the mortals dwelling in pleasure;  
The Earth is close to its demise,  
This sin we committed comes with a price,  
Killing the trees, it won't be long,  
Before we'll perish and be forever forlorn.

Zunaira Khan  
12-A





# THE SILENCE OF SCIENCE

In labs where time dissolves in steam, The silence hums a  
measured theme.

Each atom spins its whispered song.  
In quantum realms where we belong.

A telescope drinks stars like wine, Through cosmic scrolls  
of grand design.

While black holes yawn with ancient grace, We chase the  
echoes lost in space.

Circuits pulse with coded light, Neurons spark like stars at  
night. Equations bloom on chalkboard skin, The proof of  
awe, both deep and thin.

No myth, no dream, could quite compare, To galaxies in  
dark matter's stare.

Samridhi Bajpai  
12-C



# SCIENTIFIC CONUNDRUM



In realms of science, where wonders reside,  
With curious minds, we venture inside.  
From atoms small, in quantum's sway,  
To galaxies grand, where stardust lay.

Through microscopes and telescopes' gaze,  
We unravel secrets in countless ways.  
With experiments precise, we seek to know,  
The mysteries of nature, as seasons flow.

In labs of thought, where knowledge takes flight,  
With equations deep, we search for light.  
From cells unseen, in life's design,  
To planets afar, in cosmic shine.

Through observations, we learn and grow,  
The laws of physics, the way things flow.  
With each new theory, a step we take,  
In science's quest, our futures we make.

With every answer, a truth we find,  
In science's embrace, we leave none behind.  
From past to present, and future's call,  
Science empowers, embracing all.

Aiza Niyaz  
10-B



# THE ALCHEMY OF THOUGHT

In realms of science, minds aflame, Discoveries  
bloom and progress claims.

From atoms small to stars so bright,

Human curiosity takes flight.

Through microscopes and telescopes wide, We  
unravel secrets, side by side.

Innovation rise and dreams unfold, As science  
marches, young and bold.

With each breakthrough, we gain more sight,  
Into the workings of day and night.

The universe's mysteries unveil, As science paves  
the path we hail.

From medicine's healing touch to space, Science  
empowers, a wondrous pace.

Let's cherish knowledge, pure and true, And  
harness Science for me and you.

Kalpana Chandra  
10-C





# THE WONDERS OF SCIENCE

Science is about finding out,  
How things work, without a doubt.  
It's asking questions, testing too,  
Trying to figure out, what's true.

From tiny atoms to stars up high,  
Science explores, the world we can't deny.  
It's curious minds, and experiments bold,  
Learning and discovering, never growing old.

It's about understanding, the world we live,  
Making new discoveries, and finding ways to give.  
Science helps us, in so many ways,  
Making life better, every single day.

Aarna Chandra  
9-A





ST. AGNES' LORETO  
DAY SCHOOL  
1904

• RETOUR EN LUMIÈRE •

*Back in the Light*





# EXPEDITION

## EUREKA



## *A journey to* **CIPET LUCKNOW**

Organized by our school's Science Club, our visit to the Central Institute of Petrochemicals Engineering and Technology (CIPET) was an unforgettable and enriching experience. Students from Classes 9 and 11

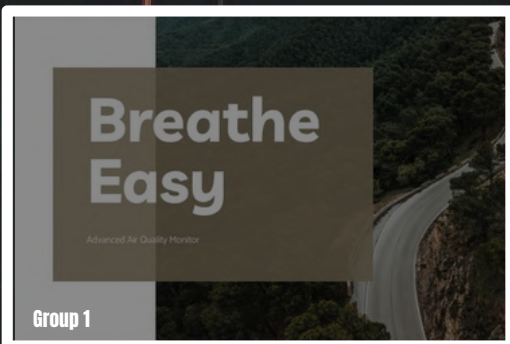
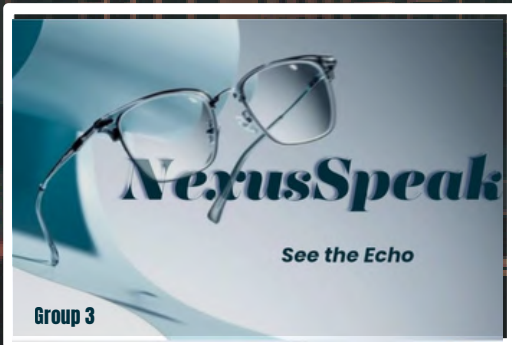
had the opportunity to explore the world of polymers and plastics. From the moment we entered CIPET, we were immersed in the fascinating field of material science. We toured high-tech laboratories and witnessed various stages of plastic processing and recycling. Seeing large-scale machinery in action and learning how raw materials are transformed into useful products was truly eye-opening.

The staff at CIPET were welcoming and explained complex processes in a way we could easily understand. The best part was realizing how the concepts we learn in our textbooks—like polymer structures, chemical properties, and sustainability—are actually applied in real-life industries. It was a powerful reminder that science is not just theory; it's innovation in motion.

The visit inspired many of us to think beyond the classroom and consider careers in scientific research, engineering, and technology. It also helped us appreciate the role of science in building a sustainable future. It was a day of learning, discovery, and inspiration—and if you ever get the chance to visit CIPET, don't miss it. It's an experience every science enthusiast should have.



# INNOVATOR'S FORGE



## Inter-group

# PRODUCT PITCHING

On 12th April 2025, the Science Club conducted its first activity of the 2025–26 session—a product pitching competition aimed at integrating scientific knowledge with real-world applications. Club members were divided into five groups, each tasked with designing an innovative product based on scientific principles. The objective was to encourage students to apply theoretical understanding to solve practical problems. Each group created a detailed PowerPoint presentation covering the scientific foundation, working model, potential uses, advantages, and societal impact of their product. Teams were also asked to consider feasibility, sustainability, cost-effectiveness, and market relevance, promoting a well-rounded approach to innovation. The activity fostered creativity, teamwork, and critical thinking. It also helped students enhance essential life skills such as communication, collaboration, time management, and leadership. By simulating a real-world pitching scenario, students gained valuable insights into product development, consumer needs, and entrepreneurial thinking. They learned to justify their ideas with scientific reasoning and assess market demands. Overall, the event proved to be an enriching experience, strengthening students' analytical abilities and inspiring innovative solutions to everyday challenges.



# BUZZ BEATS

## Inter-group COVER ILLUSTRATION

In our latest club session, we took a creative leap into the world of science and technology with a fun and unconventional activity called "SCIENCE ALBUM COVER". The event was all about blending scientific concepts with artistic flair, and it turned out to be one of our most engaging and energetic sessions yet! Armed with chart papers, markers, coloured sheets and plenty of creativity, students worked in groups to create imaginary music album covers inspired by a science topic of choice.

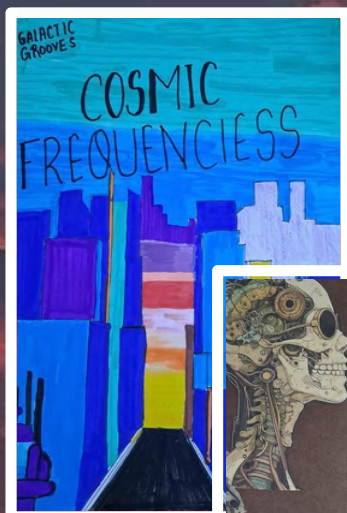
From DNA to space, the themes were as diverse as they were fascinating. Each group came up with a band name and a clever album title that reflected their topic and left an everlasting impact of their knowledge and creativity.

The results were nothing short but amazing, bold, colourful and often hilarious imaginative designs. In addition to artworks, the groups also created a tracklist of 4 to 5 fake song titles, many of which included scientific references and witty wordplay.

After the activity we held a mini gallery walk wherein all members could go through each other's creations. We wrapped up the session by recognising some of the most creative, funniest and the most original covers.

Summing up everything, the Science Album Cover activity was a fantastic success.

It sparked curiosity, innovation, team work and encouraged collaboration among the club members and reminded us that science need not be treated as boring theory but rather as expressive and fun as any form of art.





# AD ASTRA 2025



## Presents SWIP

The campus buzzed with energy, curiosity, and a spirit of healthy competition as students from various schools gathered for the much-anticipated Interschool Science Event SWIP which was a part of the event AD ASTRA 2025. The event featured two thrilling competitions that challenged not just the knowledge of the participants, but also their critical thinking, teamwork, and problem-solving skills.

The highlight of the day was undoubtedly the Scientific Treasure Hunt, CLUE CRUSADE —a brilliantly designed activity that turned the school premises into a scientific adventure zone. Teams competed to solve a series of challenging science-based riddles, each leading to a specific location across the campus. Each team had 5 participants one from each class from classes 9 to 12 and one from any of the above mentioned classes. The clues were based on physics, chemistry, biology, and even mathematics.

The second event for the day was Innoverse 2050. The challenge was to design and present a futuristic science magazine that captures the essence of where science is headed in the next 25 years.

The event aimed to promote scientific thinking, creativity, and communication skills in students, and it did not disappoint. Each team consisted of 2 participants, one from class 11 and the other from class 12. The teams were given various topics and had to choose any 3 from them. They had to not only design the magazine visually with original content, illustrations, and articles, but also present it live before a panel of expert judges Ms. Anuradha Gupta, Dr. Shailja Bhattacharya and Dr. Smrati Bhadauria— and confidently answer a round of questions to defend their ideas. As the teams took the stage one after another, the judges and audience witnessed an incredible variety of concepts.

The judges commended the students for their visionary thinking, teamwork, and research-driven storytelling.

In the end we had the much awaited felicitation ceremony in which the students of St. Agnes' Loreto Day School stood first in CLUE CRUSADE and occupied the first runner up in INNOVERSE 2050.



# Recommendation



the easy passage toward the  
with you; re never  
extravagant  
anyway.

to come when the  
re never  
extravagant  
anyway.

of the Constellations;  
re never  
extravagant  
anyway.

of these star motions reveals the fact  
that they have deserted forever.  
And here let us pause for an in-  
stant. Our Sun, which is a  
variable star, does not

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BRAD PITT

THE ANSWERS WE SEEK ARE JUST OUTSIDE OUR REACH

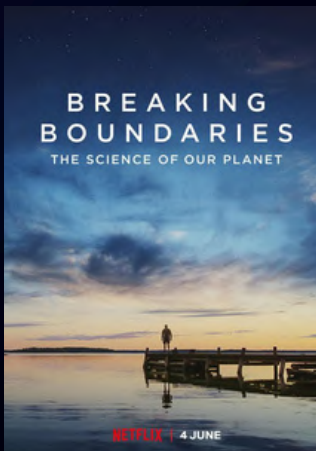
# AD ASTRA

SEPTEMBER 20

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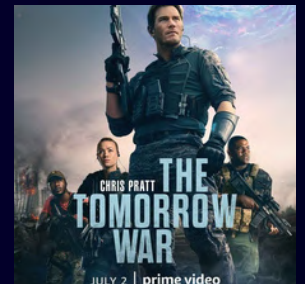


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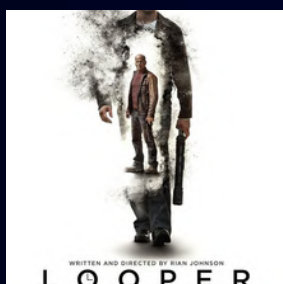
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# Intellect is Patience



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