

## FROM THE EDITOR'S DESK

The vibrance of the offline school, a testimony of our resilient Deenites, is brought to you in this edition. Presenting the newsletter compiled by the young editors of Grade 7.

- Ms. Hemlata Pande, Principal, Gunjur Campus

### Section 1 Mystical Outer Space



## OUTER SPACE

***"Exploration is in our nature. We began as wanderers, and we are wanderers still. We have lingered long enough on the shores of the cosmic ocean. We are ready at last to set sail for the stars."***

- Carl Sagan

As the new year unfolds, NASA, the largest space organization the world has seen so far, plans to send humans back to the moon after 50 years, and this time they are better equipped with new technology and a plethora of discoveries is yet to be made. Here is what they have in stock for us.

Scientists all around the globe have fixed their gaze on the Artemis III mission which is planned to send humans to the lunar south pole. It is currently planned for 2025. It will be launched using NASA's Orion Spacecraft which will be propelled by the Space Launch System's (SLS) interim cryogenic propulsion stage. NASA has selected [SpaceX](#) to provide the human landing system that will transport Artemis III astronauts from Orion in lunar orbit to the surface of the Moon and back again.

After touchdown the astronauts will recharge and get ready for the expedition.

NASA has [selected Axiom Space](#) to provide the astronauts the surface suits and spacewalk systems they require. These suits will give the astronauts increased range of motion and flexibility to explore more of the landscape than on previous lunar missions. They are also equipped with tools such as headlamps, navigation tools and communication equipment. During these moonwalks they will collect essential data such as samples, photos and other such recordings.

The spacecraft will then be put into orbit after all observations have been made and the astronauts will make their way back home at almost 40,000 km/h. The spacecraft will then slow down with the help of 11 parachutes and will undergo a soft-landing in the Pacific Ocean. The crew will then be brought back with support from the U.S. coast guard and navy.

This mission plans to pave the way for not only future moon missions and increased information about the lunar surface but also will assist the progress towards putting the first human on Mars.

Reference Link: <https://www.nasa.gov/feature/artemis-iii>

- Nipun Gaur, 7B

### Time Travelling Through Space

At some point in your life, you must have heard, read or watched something about time travel. To tell the truth we can look back into the past. We do that every time we look at the stars (this includes the sun), planets or anything in the sky that is beyond our planet. One question might be rotating in your mind: "How?"

Light is the fastest thing in the universe we know. It travels 186,000 miles (about 299337.98 km) per second. A light year is an astrological measuring unit equivalent to the distance travelled by light in a year's time. When we are looking at a star, let's say the north star/ Polaris, we are not looking at it how it is right now. It takes the light from Polaris 323 light years to reach us. So, if we look at Polaris tonight, we will see how it was 323 years ago. This applies for every celestial object in the sky, every planet, nebula and galaxy. Thus, by looking at the night sky, with telescopes and detectors, we can almost see back to the beginning of the Universe. For this we can thank the scientists Arno Penzias and Robert Wilson, who stumbled upon a great discovery completely by accident.

Penzias and Wilson worked in Bell Labs, the research centre of the AT&T. They had their eye on the Holmdel telescope since they had joined the lab. Finally, when the Telstar satellite was launched, they began testing their observations with Holmdel. As they started using the telescope, there was a background "noise" received by the telescope. Wherever they turned the telescope, they received the same noise. At first, they thought it was the pigeon poop covering the antenna of the telescope, but even after they cleaned it, the noise was still there. Later, with a little help from Robert Dickey (?), they found out that it was radiation left out from the time of the big bang, which had travelled through time and had reached them. This is known as the 'Cosmic Microwave Background'. Even though Penzias and Wilson had received the rays in 1963, the rays were remnants of the light of the early universe. They were unchanged other than that they had cooled down during their journey from the point of origin of the universe to earth.

*Did You know? - Tesseract from "A Wrinkle in Time" is borrowed from Einstein's Rosen Bridge theory or what is commonly known as wormholes. Einstein believed that gravity could bend straight lines into curves. If this idea is stretched that means that a path between two parts of the universe could be bought together, making the journey shorter.*

### Sources:

1. Inverse
2. PBS - A Science Odyssey
3. Forbes
4. Science Questions with Surprising Answers
5. Slate

- Mrinalini Biswas, 5E



## Travelling through space with Reeba Ma'am

In our school, we always strive to go beyond our textbooks. When we heard that the theme of the newsletter was to be outer space, we wasted no time in asking our respected physics teacher, Reeba ma'am, questions.

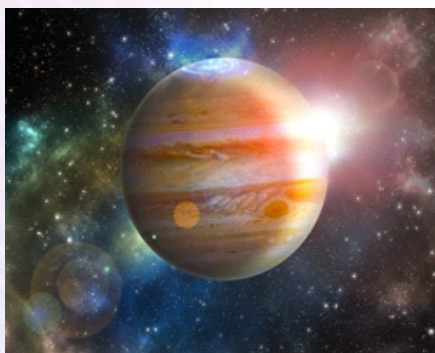


She gave us her views on our vast galaxy and the mystical world of outer space. She, as a science teacher thinks that space is a very large part of physics, and one needs a very good understanding of this topic. What better way to learn physics than with space?

That's when Nipun asked her about the string theory, she explained that all tiny molecules are seen as dots in physics. She further went on and told us that these dots are in the form of strings. So, when sound or light passes through these dots it is as strings. When asked about what she thinks about the celestial world, she said that most of our gigantic galaxy is still unexplored. According to her there are many mysteries of space that is yet to be solved and discovered. Today, this world is advancing and sending thousands of satellites and rockets to this undiscovered world which we know so less of. We understood that there exist many hypothetical theories on outer space and perhaps one of us will demystify its secrets!

- Mauli, Nipun and Tanisha

## Planets



Though we have the picturesque view of the Earth  
And the joy and beauty that comes with being a part of it,  
We still wonder what it would be like  
Above the stars and away from light.

May it be Saturn, or may it be Mars?  
What you see around you is nothing but dark  
The sun is the only heavenly body that shines with a spark.  
No songbirds, parrots or lark

Some planets are round, some of them bring.  
Cold, shade, light or warmth from within  
Their attributes are not widely spoken.  
But you can travel there, the door is always open.

There are of course, the glowing eyes-  
Of children who want to explore with no fright  
Though it sounds hazardous, they must make sure to try,  
To explore the wonderous world space and say, "Oh my!"

-Priyanka Menon, 6C

## Strange Space

Strange Space  
From tales heard in our young age  
To our science book page  
We have heard about our wonderful space.  
Filled with planets of great age

From the moment I learnt about the seven sages  
I have wanted to have a taste.  
Of our unknown space  
And then earth our own place.  
Has felt like a cage  
Stopping our escape  
To our strange space

-Tanisha Bose , 7C

## Space and Time

Professor Ratri taught astrophysics at Jadavpur University, Kolkata. Every day, after teaching, she and her sister Monika always went to the park. One day, while waiting for Monika, Ratri was fidgeting with an antenna she had found in one of the storerooms in the University. Finding a magnet in her pocket, she absentmindedly attached the antenna tip to the magnet using the magnet's southern end. A soft humming filled the air around her. And just like that she disappeared.

"Where is Ratri? She usually comes early," thought Monika, anxiously. Ratri had recently authored a research paper on the topic "Magnets and space." Worried, Monika walked home.

Meanwhile, Ratri opened her eyes, bewildered. Around her she saw hazy balls of light floating in far off distances. In the distance, there was a ginormous purplish planet. Farther away, like a world away, there was a large orangish pearl. It dawned to her that she was in space, but not in the Solar System. "If I am in space, how am I breathing?" she wondered. She reached forward and tried to touch anything around her. Her hand hit glass and she realized she was in a spaceship. She took a deep breath and pulled out her notebook from her pocket. "Antenna + South Pole of Magnet = Space Travel (Beginning:)"

Monika was worried- No sign of Ratri anywhere! "Where could she go? Pulling out her phone, she dialled Ratri's number. It rang for a minute before she realized Ratri was not near her phone. Outside, the clock struck six-thirty. Monika realized if Ratri did not come by eleven or twelve, something was truly wrong...

Ratri was beginning to enjoy herself. There was enough food and water to last her one year. She had found the cockpit which had directions for returning home. At this moment, she was travelling at a speed greater than the speed of light. She had begun her journey back to Earth and nothing had gone wrong. Suddenly, her phone started ringing. By the time she clicked on accept, the call vanished.

Two years had passed on Earth. Ratri's disappearance had become the world's biggest mystery: "The Disappearing Professor." Monika taught Geography in Jadavpur University and every day, Ratri's students came to ask her, "Excuse me, Professor, has Professor Ratri contacted you?" , "How long will Ratri Ma'am take to come back? I mean, she must be somewhere on this Earth... She cannot vanish into thin air or travel to outer space, can she?"

Meanwhile, Ratri was enjoying her sojourn. "I have crossed Pluto, according to the chart in the cockpit. If I am right, I am in the Solar System now, near Neptune." she muttered. According to her calculations, it would take her another five hours to reach Earth.

Monika was lying in a hospital ward. Her friend's daughters, Madhura and Subarnalata sat next to her. "When you find Ratri let her know that I did my best to find her. I wanted to comb forests, rivers, seas, villages, and anything on my path to find her." whispered Monika. It had been 20 years since Ratri's disappearance and Monika was seventy-two years old and lying on her death bed and finally, breathed her last.

According to Ratri's estimations, it would take her two more hours to reach Earth. Pulling out her notebook, she wrote, "However exiting the space is, Earth is even better. It is home after all." Looking out she saw millions of stars in the distance, glittering like diamonds.

Ratri was one day away from Earth now. About four light years away she saw the sky light up, brilliantly. "A supernova?" she wondered. Looking again, she realized it was about four light years away. "No... It must be the Proxima Centuri! That means the star died... No way! It could not have blasted about four years ago!" Unfortunately, it had. The world was about to learn in the future.

Suddenly, Madhur's doorbell rang. A lady, standing near the door said, "Excuse me ma'am, could you please tell me about the way to 89<sup>th</sup> Street? The lady pulled out an identity card which had the exact same picture of her and said, "I am Professor Ratri. I was away for -"

"20 years," screamed Madhura. "May I ask where you have been?"

"I was in space for two months, not twenty years," replied Ratri mysteriously.

- Sharanyaa, 5C



## The Unbelievable Space

The air is frozen,  
There is no light,  
An Unconquerable world.  
Ultraviolet rays,  
pierce its boundaries.  
Reach for the stars,  
Be with the solar winds,  
Find a call of the  
silence,  
Your home.  
Everything is out here.

- Mauli Agrawal, 7C

## The Trip to the Mystical Space

One day, I was working in my office when a thought struck me, why don't I build myself a spaceship? Since I was very interested in space, and as I was good at building stuff, I started to build it that very day. It took me some time to build it, perhaps some weeks, but finally it did!

It had special features such as, to become invisible when I wished, it could go at a speed of 890km per hour etc. I wanted to go right away but I first had to pack all my stuff. In half an hour I got ready to take off with my space ship. So, I got inside my spaceship, and kept all my stuff in a compartment next to the driving room. After I got fully settled, I buckled my seatbelt and got ready to blast off. "1,2,3 blast off! I was off to the mystical world of outer space!!

I started to explore the magical world of outer space. It was a very strange place to be if you were to be there because I saw many strange things in this place like a planet full of fire, flying balls of ice etc. After some time, I saw a planet where aliens lived! I could not resist myself, so I landed on that planet. I saw rivers, lakes, seas and oceans, but they were filled with a greenish substance. I went to examine the greenish substance when suddenly I saw aliens walking towards me. I quickly hid under a bush because I thought they were coming to attack me, however, they spotted me and we shook hands. They helped me reach my spacecraft and bid me goodbye. By then I was very tired, so I decided to return to Earth. I will never forget my trip!

- Ritvik Vohra ,4B

## Different Strokes



## Section 2- Math Week



January 9th to 13th marked the celebration of Math week - "Pi-thon" - celebrating the joy of learning MATH". The primary grades had their learning enhanced through activity-based learning. The senior grades were excited to present the math working models which were also integrated with various subjects such as physics and art. Students enjoyed putting up Math quiz & puzzle counters every day, playing arithmetical hopscotch and creating geometric cities. Clinometer, Bank counters to learn about simple interests, models that enabled them to visualise theorems and application models of Pythagoras theorems, probabilities ,etc were some of the mind-blowing activities; to name a few.

Grade 7 Math week took place between the 9<sup>th</sup> and 13<sup>th</sup> of January 2022. These days were the highlight of this year! The students had to make models which portrayed various concepts of math, like Pythagoras' theorem, triangles, percentages, etc. The projects were so interesting that the children from other classes also visited us to see them. Everyone had a fun time, and everyone got to learn a new thing about math.

- Aarav Jain, 7C

## Section 3- Inter House Music Competition



Music gives a soul to the universe, wings to the mind, flight to the imagination and life to everything." -Plato

Music is the art of arranging sound to create some combination of form, harmony, melody, rhythm, or otherwise expressive content. Music has been considered the universal language of the world and to celebrate this language, its diversity and types, our school hosted an inter house music Competition on 19<sup>th</sup> January 2023

The competition was divided into 2 categories, Solo and Group singing. There were categories which were Indian music for grades 1-5, Indian music for grades 6-8, Western music for grades 1-5, Indian music for grades 6-8. The judges who decided the winners were Chandrika Ma'am, Ashwati Ma'am, and Kiran Ma'am.

We saw that Flavus was one of the best contributors, earning first place in the Group singing and grades 6-8 Indian Music. Then came Caeruleus who earned first place in Western Music for grades 6-8. The first place for grades 1-5 Western Music was taken by Prasinus and the first place for grades 1-5 Indian Music was earned by Rubrus. All the singers sang very well and did their very best.

-Reyansh Bansal 7B



#### Section 4- Grade 2-5 Extempore



Extempore competition was conducted on 18th January 2023, from grades 2-5. Prelims for the same was conducted in the class. Students were asked to pick a topic. The topics in the competition varied. Every participant was given 2 minute to prepare the speech on the topic selected by them. It was impressive to see how students put their thoughts, insights and humour into the speech which was fluent and articulate while being unscripted. The children were judged on fluency, body language, content/flow of thought and creativity. The finalists' displayed oratory skill with zeal and enthusiasm. The competition ended on a high note with suggestions and tips given by judges on areas of improvement.

#### Section 5-Grade 6- Guest lecture



#### Even superheroes need to brush their teeth!

Did you know, most of us believe that bones are the hardest substance in the human body, but it's our tooth enamel! Did you know the total cost of standard filling of teeth is around 156 € in England! Did you know that the first dentist was 5000 years ago!

Ok...back to our topic. Our teacher had a very important announcement- An announcement about a guest lecture by a dentist. The first thing that comes into my mind when I hear the term "dentist" is fear! However, I had fun and learnt a lot. It was given by Dr. Gayathri, a dental specialist with 12 years of experience.

Ok, Let's be honest, most of us might not have had the best experience with a dentist. But only on the day of the session I understood why I needed to go to the dentist and maintain good oral hygiene. The first thing people see in us is our smile and that we must maintain our teeth for that sunny smile. Not only that, I learnt that 70 % of children miss school due to toothache. Dr. Gayathri shared a few tips on how to maintain oral hygiene on an everyday basis such as the right techniques of brushing, right toothpaste, etc.

Apparently lip biting, pencil and pen chewing and opening bottles with our teeth can damage them. When I was small, I saw in movies. The good guy punched the bad guy's goons and their teeth just fell off so easily. I wondered if that was real. would someone's teeth grow back? Well, they don't. However, in case these injuries which may happen while doing boxing, sports or other such events, you need to store the tooth milk and the dentist can put it back. That also answered my question on why all the old people in Boss Baby used dentures. I was shocked when I heard that tooth decay is the 2nd most common disease after common cold.

Finally, these are some of the additional tips Dr. Gayathri shared with us :-Visit the dentist every 6 months, Change the toothbrush every 3 months and wafter recovering from an illness, avoid overly sugary foods, brush 2 times a day.

Although visiting the dentist might not be our favourite activity, we need to understand that dental health check-up is as important as a general health check-up. Even Superheroes need to brush their teeth, so, don't rush when you brush.

- Anwita Prasad (6A)

#### Section 6- Grade 5 Special Assembly



"It's not happiness that brings you gratitude. It's gratitude that brings you happiness." The Special Assembly for the students of grade 5 was conducted on 24th January 2023. All the students put their best foot forward to teach all of us the meaning and value of gratitude.

They put together a stunning performance brightened with lovely songs, skits, mime and energetic dances. The song 'Thankful' was beautifully sung by the Western Music Choir. 'Meri Pyari Ammi' touched all our hearts.

The mime – The Attitude of Gratitude – displayed a valuable virtue through a funny scene. The Indian dance and western dance stole the show. The skits taught everyone the value of people from different walks of life and how we should be thankful to them. All the children and teachers of grade 5 had worked hard to make this presentation possible. The program sent a powerful message on why we should be grateful to the people around us. Altogether the special assembly of grade 5 was a great success!

- Anagha Sooruj Nair, 5A

#### Section 7- Wow Moments in the Classroom - Grade 6



The students of grade 6 learnt about the composition of gases in an interesting activity which combined chemistry and math.

Grade 6 also learnt about changing seasons-The picture depicts the seasonal changes. The children learnt that the tilt of the Earth's axis is the most important reason why seasons occur. The Earth is always tilted to one side as it orbits the Sun. So, when the North pole tilts towards the Sun, it's summer in the Northern hemisphere and winter in the Southern hemisphere. The students of grade 6 have drawn the picture of seasonal change to explain periodic change, which they have learnt in Geography also.

#### Grade 7- Math-chemistry integration



The students of grade 7 learnt how the water resources on Earth are distributed. The pictures say it all!



## History and Art integration

The students of Grade 7 were introduced to the nuances of the miniature paintings that evolved during the era of the Mughal dynasty in India. It was an art-integrated activity wherein the students made a beautiful bookmark using the technique that was used by the painters who created exclusive and beautiful miniature paintings. Students used chart paper, a black tip pen and colours to create royal-looking bookmarks!

These miniature paintings had the influence of both Indian and Persian art and had fine lines and bright colours. Some of the striking features of these paintings were:

1. They were small in size.
2. They used vivid and bold colours. The vibrant colours made the painting look realistic and gave it a three-dimensional effect.
3. These paintings were very detailed and highly sophisticated.

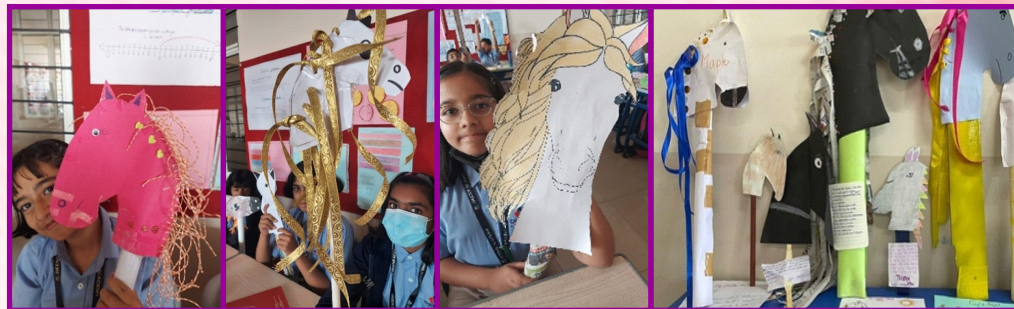
The painters made them either for illustrations in books and manuscripts or as solitary work. They depicted scenes from the royal life of the emperors like hunting scenes, battles, courtrooms or legendary stories or they could be portraits of royalty. This art form progressed immensely during the reign of Akbar, Jahangir and Shah Jahan. Some of the famous paintings of the Mughal era include Tuti Nama, Hamzanama, Gulistan, Darab Nama, Khamsa of Nizami and Baharistan.

Today, many miniature paintings of the Mughal era are displayed in museums across the globe, for example in National Gallery of Victoria Melbourne, Australia; National Museum, New Delhi and Cleveland (Ohio) Museum of Art. It was a great learning experience!

- Nipun Gaur 7B



## Grade 5- Fun with a hobby horse



Grade 5 was introduced to an excerpt from the beautiful novel, Black Beauty, which they enjoyed immensely. Now, how can fifth graders do a lesson on horses and not want to ride a horse? Well, they found an easy and economic solution by making their own hobby horses and naming them and yes- it was fun ride them in class too!

## Grade 4- Social Initiatives Program



The students of grade 4 undertook the initiative of teaching technological skills to their grandparents. I personally learnt a lot while teaching these skills to the elders near my house. They learnt how to open the computer system and create an email account and PowerPoint presentations. I understood that it is not easy to teach. We need a lot of patience and understanding. However, I enjoyed spending time with them.

-Shana, 4A.

## Section 8—Kideens

Our tiny tots had an interesting start to the new year! They were thrilled to have their mums with them in class and they also learnt the importance of oral hygiene on a field trip to the dentist.

Tiny hands made models worthy of attention when the children celebrated "Engineering Day". They also had fun learning and revising their subjects- Hindi- Caterpillar activity-sequencing of Hindi alphabets and English ( revising sight words), through fun activities.



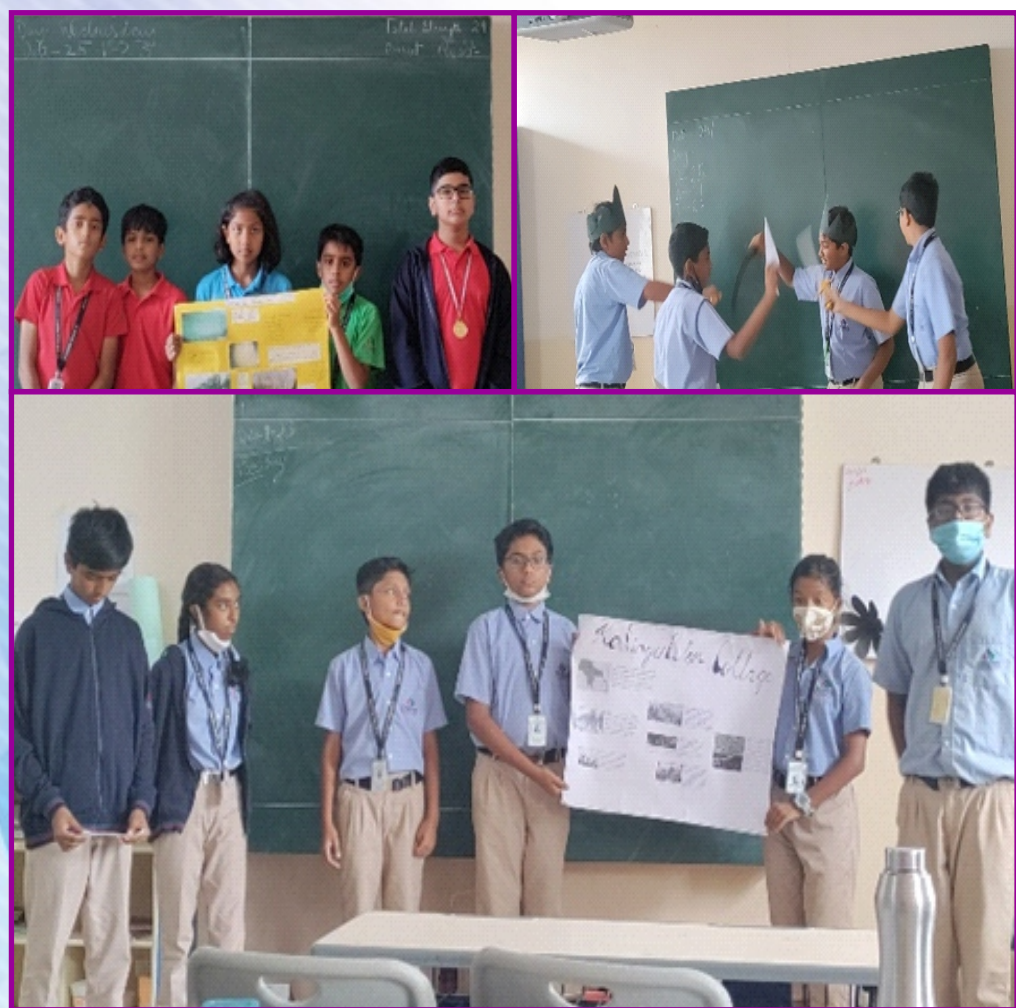
## Hands and Minds that Worked Together



**Nipun Gaur, Reyansh Bansal, Aarav Jain,  
Mauli Agrawal, Tanisha Bose, Prateesh Reddy,  
Sameeran( Photography Credits)  
Mentor teacher- Chandan Shenoy**



## Grade 6-History and theatre



Grade 6 had an activity based on the mighty Kalinga war for the chapter, "The First Empire and an Inspiring Emperor." This involved the students forming groups and presenting role plays and collages about this great war which changed the life of one of the great kings of India, Ashoka. Students spoke about the monuments, art and culture of Kalinga at that time. This was a fun- filled yet educational activity for various reasons. Students could venture out of their textbooks and discover facts. They also learnt fascinating facts about this war. This activity was indeed very beneficial as it let creativity run free yet made learning easy.