

## Monthly Descriptive Report of programmes and activities organized at Nehru Science Centre, Mumbai at its Satellite Units for the month of June, 2023

### NEHRU SCIENCE CENTRE, MUMBAI

#### Sci-Birthday

01 Sci-Birthday event was organized on 10.06.2023 for a group of 30 people respectively. The participants were taken around in the galleries, enjoyed 3D show, SOS show and Motion simulator ride. A session on hands-on activity was also organized with most exciting science demonstration on Liquid Nitrogen.

#### World Environment Day

The Centre celebrated World Environment Day by hosting a variety of activities and competitions.

- **Exhibition 'Best out of Waste'**

The Centre arranged an open exhibition showcasing innovative creations made from discarded plastics. The exhibition, themed "Beat Plastic Pollution," welcomed participants from all walks of life. 03 students presented their projects, the exhibition was visited by 720 visitors on 05.06.2023.

- **Online Painting Competition**

An online painting contest took place across three categories. Category A was open to students up to 4th grade, with the theme "Clean Environment." A total of 94 students submitted their paintings for this category. Category B targeted students from 5th to 7th grade, with the topic "Plastic Free World," attracting the participation of 59 students. The final category was for 8th to 10th grade students, who were tasked with creating artwork on the theme of "Plastic Pollution Crisis." In this category, 23 students submitted their artistic contributions.

- **Science Shorts**

Students were asked to record 1 minute video on the topic 'My Solution to Plastic Pollution'.

The results of all the events were published on the Centre's Facebook page. Winners and participants received digital certificates to acknowledge their achievements.

#### Experimental Skill Test on 17.06.2023

The Centre, in collaboration with the Bombay Association for Science Education (BASE), coordinated a session of the Experiment Skill Test at the Center on 17.06.2023. This program was designed for 20 participants registered in grades 8 through 12. During the test, the students were provided with experimental setups and were expected to conduct experiments under the supervision of experts from the Center and BASE. The primary objective of this initiative was to evaluate the participants' ability to perform experiments and demonstrate their keen observational skills.

#### Teachers' Training Programme

Two batches of teachers' training program were carried out for aspiring educators. These trainee teachers were provided with opportunities to familiarize themselves with the various facilities available at the Centre. Additionally, they created Teaching & Learning materials related to concepts such as the Archimedes Principle, Brain model, Electric motor, and Pythagoras theorem. Furthermore, a session on fostering innovative and out-of-the-box thinking was arranged for them. The initial batch, consisting of 18 trainee teachers, took place from 19.06.2023 to 23.06.2023. The second batch, is in progress from 26.06.2023 to 01.07.2023, includes the participation of 58 trainee teachers.

#### 9<sup>th</sup> International Day of Yoga

The Centre, in collaboration with The Art of Living, Mumbai, commemorated the 9th International Day of Yoga through both online and offline mode. This joint effort involved all satellite units in the western zone. The program was also livestreamed on the Centre's Facebook page. Accomplished instructors demonstrated and explained various asanas to the audience. A total of 72 members participated via Zoom, and the Facebook reach extended to 1,266 individuals. Additionally, 53 staff members of NSC, Mumbai, attended the offline session.

As part of the 9th International Day of Yoga, the following programs were also organized:

- **Surya Namaskar Session cum contest**

The Centre conducted a Surya Namaskar Session from 9:30 am to 10:30 am at Nehru Science Centre, Mumbai. 113 students from various schools actively participated in this session, performing various asanas under the guidance of a yoga instructor from The Art of Living.

- **Online Yoga Mudra Contest**

The Centre hosted an Online Yoga Mudra Contest for students, which had two categories. Participants were required to perform specific asanas and record themselves holding for a minimum of 20 seconds in the final posture of the asana. The last date for submission for their videos was 20.06.2023. The winners of the contest were announced on 21.06.2023.

### **Commemorating Asteroid Day**

Asteroid Day will be celebrated at the Centre by organizing various engaging activities, including a Popular Science Lecture, a Written Quiz, Open House Contest and a Science Film Show. The specifics of each program are provided below:

- **Popular Science Lecture**

On 30.06.2023, the Centre has organized an online Popular Science Lecture by Dr. Henry Throop, a Programme Scientist in the Planetary Science Division at NASA Headquarters. The lecture, titled 'Impact: Asteroid and Collisions in the Solar System and What NASA is doing to Protect the Earth,' garnered an impressive response, with 119 entries received so far for participation.

- **Written Science Quiz**

A written Science Quiz on the topic of Asteroids, Meteors, and Comets will be conducted by the Centre. A total of 120 students have registered so far to take part in this quiz.

- **Science Film Show**

A film centered around asteroids will be screened for 275 registered participants on 30.06.2023. Following the film, an Open House quiz based on the content of the film will be conducted.

The day will conclude with a Prize Distribution Ceremony, during which prizes will be awarded to the winner students.

## **RAMAN SCIENCE CENTRE, NAGPUR**

### **World Environment Day Celebration**

On June 5, 2023, the Centre celebrated World Environment Day (WED) with a focus on addressing plastic pollution under the theme "Beat Plastic Pollution." The event featured the inauguration of the "Ashtanghridaya" exhibition, which showcased medicinal plants and herbs, attracting approximately 1050 visitors. Two workshops on "Eco Brick Making" and "Bio Enzymes Making" were conducted, engaging 39 students. An open house quiz on the environment was organized for 110 students and parents, followed by a prize distribution ceremony. The program also included a plantation activity and proper disposal of electronic waste (E-WASTE). The event received sponsorship from the Indian Society of Heating, Refrigerating, and Air Conditioning Engineers (ISHARE), Nagpur.

### **Astro Night Tourism at BAPS Swaminarayan Temple, Nagpur**

The Centre in collaboration with Kutuhall and BAPS Swaminarayan Temple, organized the Astro Night Tourism program at BAPS Swaminarayan Temple in Wathoda, Nagpur, from 14.06.2023 to 16.06.2023 and 19.06.2023 to 21.06.2023. Over the course of six days, a total of 10,950 visitors had the opportunity to observe celestial objects such as the Moon, Venus, Mars, and more using various telescopes.

### **International Day of Yoga**

The Centre celebrated International Day of Yoga on 21.06.2023 with the themes "Yoga for Vasudhaiva Kutumbkam" and "Har Angan Yoga." The program included a Yoga workshop and open house quiz activities for students, members, families, and staff. A session on "Ashantgyog" was conducted in the morning for officers and staff members which had 17 participants, and 04 open house quizzes were held for 129 general visitors.

### **Vidushi - Women in STEM**

The Centre initiated a social media campaign called "Vidushi: Women in STEM" to honor early Indian women scientists. 03 posts were shared on RSC Nagpur's social media accounts every Wednesday in June 2023, accompanied by Marathi translations for the Maharashtra audience. The campaign aimed to engage the audience in conversations about science, technology, and innovation.

### **Test Your Experimental Skills - Level 1**

The Centre in collaboration with Bombay Association for Science Education (BASE), TIFR, Mumbai, organized the "Test Your Experimental Skills - Level 1" program on 27.06.2023 for school students (Grade 8 to 12). 11 students appeared for the test, which involved conducting two science experiments. Observers and examiners assessed the students' experimental skills, including measurements, data presentation, graph plotting, and calculations. Certificates were awarded to students who scored 75% and above, and a special session was held to provide individual guidance on the conducted experiments.

## REGIONAL SCIENCE CENTRE BHOPAL

### Innovation Hub Programs

The Innovation Hub of the Centre conducted 11 Orientation Sessions covering various topics such as Fundamentals of Electronics, Understanding the Human Heart, Blood Group Testing, Robotics, Exciting Chemistry Experiments, Visual Science, The Role of Mathematics in Robotics, Gram Staining, Observation of Epithelial Cells, Sun Tracking Model, and Crystallization. A total of 65 students actively participated in these programs.

Furthermore, the Innovation Hub organized a creative project titled "Exploring the Physics Behind Induction Cooktops," along with a special session on "Repairing and Assembling with Scrap Materials" and an interactive session in celebration of the "Summer Solstice." These events saw the participation of 8 members for the creative project, 16 members (8 each) for the session on repair and assembly, and 4 participants for the interactive session.

### World Environment Day

On 05.06.2023, the Centre celebrated World Environment Day with a series of programs aimed at children and the public. Among these was the "Nature Trail," a guided tour of the Science Park for underprivileged children, with 46 participants. Nature Film Shows were also presented, attracting 86 attendees from diverse backgrounds. Mr. Saket Singh Kaurav delivered a speech emphasizing the need for collective action against plastic pollution. A special demonstration highlighted creative reuse of household plastic materials. Dr. Manoj Kumar Sharma inaugurated a Medicinal Plant Corner displaying healing plants, and the Centre's staff engaged in a plantation drive with 23 participants. Exclusive guided visits and Science Demonstrations were arranged for attending teachers, involving 10 teachers. Throughout the week, the Centre shared videos on social media to raise awareness and showcase innovative plastic waste reuse.

### 9th International Day of Yoga

The Centre commemorated the 9th International Day of Yoga on 21.06.2023. As part of the observance, officials from RSC, Bhopal actively participated in an online Yoga Session organized by Nehru Science Centre, Mumbai. They practiced various yoga asanas. Additionally, a film screening highlighting the importance of yoga and a pictorial quiz on yoga were organized, attracting participation from 11 general visitors.

### Observance of International Asteroid Day

The Centre will be observing International Asteroid Day 2023 on 30.06.2023. Various activities are planned for school students and the general public of Bhopal. These include a Poster Making Contest on the theme "Safeguarding Mother Earth from Asteroid Impact," a Cartoon Making Contest titled "Design Your Own Asteroid," a Pictorial Demonstration Contest, a Popular Science Lecture on "The Threat of Asteroid Impact: A Potential Risk to Humanity," a Workshop cum Demonstration on Asteroids, and a storytelling session on "What If Dinosaurs Hadn't Gone Extinct?"

## GOA SCIENCE CENTRE & PLANETARIUM, PANAJI

### World Environment Day

The Centre celebrated World Environment Day on June 5, 2023, with a series of programs and competitions centered around the theme of combating plastic pollution, under the campaign #BeatPlasticPollution. The events included:

- **Clean Up Walk at Miramar Beach**  
In collaboration with the Goa Forest Department, the Centre organized a clean-up walk at Miramar Beach as part of the Beach Cleaning Campaign to address plastic pollution. A total of 46 officials and staff from the Centre and Goa Forest Department participated in the campaign.
- **Plant a Tree Plant a Life Campaign**  
The Centre partnered with the Goa Forest Department for a tree plantation campaign, during which 50 fruit-bearing plant saplings provided by the Forest Department were planted by the staff and officials of the Centre.
- **Online Environmental Quiz**  
An online environmental quiz was conducted for students in grades VIII to X on June 5, 2023. A total of 123 students participated in the quiz.

Furthermore, in collaboration with the Goa State Biodiversity Board, the Centre organized a state-level painting and poster designing competition for school students on 19.06.2023. The painting competition was held for students in grades V to VII on the theme "Clean & Green Environment," while the poster

designing competition was conducted for students in grades VIII to X on the theme "Beat Plastic Pollution." A total of 586 students participated in the competition.

### **SCI-Birthday Celebration**

The Centre introduced a new activity that allows interested individuals to celebrate their child's birthday at the Goa Science Centre. A birthday celebration took place on 11.06.2023, during which the guests enjoyed a guided tour of the galleries, a 3D show, a Planetarium show, and science demonstrations.

### **Monsoon Observer Program**

The Centre, in collaboration with the Goa State Biodiversity Board and Goa State Climate Change Cell, organized a Monsoon Observer Program on 21.06.2023. The program included an introduction to temperature and humidity measurement by Dr. Rajiv Kumar Chaturvedi from BITS, Pilani, Goa Campus, as well as training on using wet and dry bulb thermometers. The SATARK team provided guidance on using rain gauges for measuring daily rainfall. The event was graced by Shri Nilesh Cabral, Hon'ble Minister of Environment & Climate Change, who distributed rain gauges and thermometers to selected students from various locations in Goa. He also presented certificates and prizes to the winners of the State Level painting/poster designing competition organized by the Goa Science Centre and Goa State Biodiversity Board during the World Environment Day celebration.

### **International Yoga Day**

On 21.06.2023, in observance of the 9th International Day of Yoga, the staff of the Goa Science Centre practiced Yoga Asanas from 8:00 am to 9:00 am. The session was guided by Mrs. Harleen Shawney, a Yoga Preneur and Ayurvedic Wellness Coach.

### **Asteroid Day**

The Centre will be observing Asteroid Day on 30.06.2023, by organizing a popular science lecture on the topic "Asteroids: Destroyer or Harbinger of Life" by Dr. Vithal Tilvi, an Astronomy Professor from the Research, Development, and Innovation department of the State Higher Education Council, Directorate of Higher Education, Goa. Additionally, an online quiz on Astronomy will be organized for school students.

## **DISTRICT SCIENCE CENTRE, DHARAMPUR**

### **World Environment Day**

On 05.06.2023, World Environment Day was celebrated with a focus on addressing plastic pollution. The event featured various educational activities, including the planting of saplings and a Science Talk by Shri Rahul V. Prajapati on "Environment Sustainability & Life Style: Science & Technology." Students engaged in an Open House Quiz on environmental topics and watched a documentary film. Furthermore, a workshop on 3D Printing was conducted to familiarize students with the operation of 3D printers, the manufacturing of plastic filaments, and the conversion of other plastics into filaments for waste reduction and the creation of prototypes and artifacts. The program had a participation of 40 students and visitors.

### **World Food Safety Day**

On 07.06.2023, World Food Safety Day was celebrated at the Centre, focusing on the theme "Food Standards Save Lives." The program included a popular science lecture for students and staff members, a quiz on food adulteration, and demonstrations of different experiments using various chemicals to highlight food adulteration. Students were also educated about adulterants by testing spices, milk products, and sugar. The program saw participation from a total of 95 students.

### **World Oceans Day**

World Oceans Day was celebrated on 08.06.2023, in collaboration with the Centre at The Lady Wilson Museum, Dharampur. A Gallery Lecture titled "Life in the Ocean" was delivered by Shri. Pragnesh Rathod, Education Officer at the Centre. A total of 60 students and teachers participated in the program.

### **Science Experimentation Activity**

On 18.06.2023, an experimental activity involving four integrated science experiments took place at the Innovation Hub of the Centre, with the participation of 16 students.

### **World Sickle Cell Awareness Day**

On 19.06.2023, the Centre observed World Sickle Cell Awareness Day by hosting a workshop on "Sickle Cell Awareness." Led by Innovation Hub Junior Mentor, Gayatri Bisht, the workshop provided students with valuable information about Sickle Cell Anemia, including its causes, symptoms, complications, diagnosis, and medication. A total of 65 students participated in the program, which concluded with a Quiz focused on Sickle Cell.

**International Yoga Day**

On 21.06.2023, the Centre celebrated the 9th International Day of Yoga by organizing various activities. The staff members of the Centre engaged in a Yoga session from 8:00am to 9:00am, guided by Mrs. Harleen Shawney, a Yoga Preneur and Ayurvedic Wellness Coach. The session was followed by a popular science lecture on the topic of "Yoga: A Healthy Way of Living Life" delivered by Smt. Purna Mahant, a Yoga Coach from Dharampur, Gujarat State Yog Board. An Open House Quiz on Yoga was organized for staff members, students, and general visitors, with a total participation of 55 individuals.

**Workshop On Microcontrollers - Arduino**

A workshop on "Microcontrollers – Arduino" was conducted by Innovation Hub Jr. Mentor, Rahul Shah, at Government Engineering College, Valsad, on 28.06.2023. A total of 65 students and faculty members participated in the program, which included a presentation and demonstration on Arduino UNO microcontrollers.

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