

Monthly Descriptive Report of programmes and activities organized at Nehru Science Centre, Mumbai at its Satellite Units for the month of June, 2024

NEHRU SCIENCE CENTRE, MUMBAI

Sci-Birthday

01 Sci-Birthday event was organized on 22.06.2024 for a group of 45 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 contests on 05.06.2024.

- **Nature Trail**

The Centre conducted by a Natural Trail with 05 trail experts, including members from Friends of Tree, Ruparel College, BNHS, and a CBSE school teacher. A total of 235 participants, including students from local Mumbai schools, attended 06 nature trails organized by the center.

- **Contests:**

- **Nature Photography Contest:** The Nature Photography Contest saw 16 participants, with winners selected based on photographs taken within the center's premises.
- **Treasure Hunt Contest:** The Treasure Hunt Contest involved 28 participants who worked in groups to find treasures based on six sets of questions about five trees along the trail.
- **Nature Quest:** 25 participants identified 15 natural objects like leaves, seeds, and flowers, matching them to their respective trees.
- **Online Quiz:** An online quiz on Environment Day attracted 135 participants, with all receiving online participation certificates.

- **Workshop**

- **Bottle gardening Workshop:** The Bottle Gardening and BMS Workshop taught 245 participants how to create mulch from fallen leaves for seed sowing. Shri. Tushar Desai from Friends of Trees conducted three sessions.
 - **The Cyanotype Printing Workshop:** The Cyanotype Printing Workshop, led by Ms. Riddhi Satra, introduced 62 participants to an old photographic printing technique using sunlight to create blueprints from fallen leaves.
- **The Natural Food Fest:** The fest featured 27 participants showcasing natural and organic products from Mumbai, Thane, and Aurangabad at 12 stalls, attracting around 1200 visitors. The results of all the events were published on the Centre's Facebook page. Winners and participants received digital certificates to acknowledge their achievements.

Overall, the center successfully organized various the above programmes, contests, workshops by engaging around 1,500 participants in total.

Online workshops

The Centre organized Online workshops for the registered students on the following topics:

- **Paper STEAMER Workshop**
An Online Paper steamer workshop was organized by the Centre on 07.06.2024. Students were guided to do experiments on illusion, blind spot, Rotocopter, paper tumbler, paper carousel, Geometry, etc. A total of 17 students participated in the workshop.
- **Experiments with Candle**
Through hands-on experiments, 11 participants uncovered the secrets of combustion, heat transfer, and chemical reactions. They observed flames, experimented with waxes and wicks, and delved into candle-making, learning about melting points and fragrance compositions. This

workshop illuminated key concepts in physics and chemistry, creating lasting memories and deepening their understanding of energy transformation.

➤ **Experiments with Balloon**

10 participants were part of the online balloon workshop. The participants explored the principles of physics and chemistry through hands-on experiments with balloons. They investigated static electricity, gas properties, and observed elasticity and pressure changes, while also honing their skills in balloon sculpting. These activities sparked curiosity and excitement, deepening their understanding of scientific concepts and creating lasting memories.

Experiment Skill Test on 16.06.2023

The Centre, in collaboration with the Bombay Association for Science Education (BASE), coordinated a session of the Experiment Skill Test at the Center on 16.06.2023. 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. 11 participants registered for the test.

10th International Day of Yoga

The Centre, in collaboration with The Art of Living, Mumbai, commemorated the 10th International Day of Yoga through both online and offline mode. The theme for this year was 'Yoga for Self and Society'. 2 offline sessions for Yoga Asanas were organized. One session was organized exclusively for Women and Girls. 76 girl students and other females participated in very engaging session conducted by accomplished instructors. This joint effort involved all satellite units in the western zone. The program was also livestreamed on the Centre's Facebook page. 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 women, school girls, and staff members of the Centre, attended the offline session.

• **Online Quiz**

An online quiz on Yoga Day attracted 219 participants, with all receiving online participation certificates.

• **Online Yogasanas Contest**

The Centre hosted an Online Yogasanas Contest for students. Participants were required to perform specific asanas and record themselves holding for a minimum of 20 seconds in the final posture of the asana.

Vaccine Injecting Hope Exhibition (Data upto 27.06.2024)

Two sessions featuring demonstrations and hands-on activities were organized each day from 24.06.2024 to 28.06.2024. The activities included visits to the Vaccine Exhibition, demonstrations of a water drop Laser Microscope, and sessions on hand hygiene and creating a virus model. A total of 310 students participated in these engaging and educational demonstrations.

Outreach Programme at Navi Mumbai

On 20.06.2024, the Centre conducted an outreach program titled "Physics Around Us" at Reliance Foundation School, Koperkhairne. The event engaged over 247 students in an enlightening session, where the Director of Nehru Science Centre personally interacted with the attendees. This interaction left a lasting impact, inspiring students to develop a keen interest in physics and its applications in daily life.

Global Wind Day

To commemorate Global Wind Day, the Centre organized a quiz on 15.06.2024, to educate people about wind energy, its potential to transform our energy systems, decarbonize our economies, and stimulate job creation and economic growth. A total of 137 students attended the quiz, demonstrating a keen interest in learning about the benefits and possibilities of wind energy.

Astronomy Olympiad

The Orientation Cum Selection Camp (OCSC) held at Nehru Science Centre, Mumbai culminated on 04.06.2024. 21 students were chosen for this camp based on their performance in the Indian National Junior Science Olympiad 2024. Out of the 21 selected students 20 students attended the camp. These students learned about many astronomical topics over their 20 days stay (15.05.2024 to 04.06.2024) at the camp from renowned lecturers in the fields of astronomy and astrophysics. Students were taken

on educational trips to the Nehru Planetarium, Mumbai, Giant Meterwave Radio Telescope (GMRT) and National Centre for Radio Astrophysics (NCRA), Pune. Based on the combined test scores, each participant was given a certificate of excellence, and the top 03 students were chosen to represent India at the 3rd International Olympiad on Astronomy and Astrophysics for Juniors (IOAA-Jr.) 2024, which will be held in Katmandu, Nepal from 03.10.2024 to 10.10.2024.

Innovation Hub Sessions

The Centre will conclude the Integrated Batch of the Innovation Hub on 29.06.2024. Three sessions have been held so far: a Chemistry session on 01.06.2024, an Idea Presentation session on 15.06.2024, and a Physics session on 22.06.2024. The concluding session will take place on 29.06.2024. 21 students are part of these Innovation Hub Session for April – June 2024 batch.

“हिंदी कार्यशाला : दैनंदिन सरकारी कामकाज में हिन्दी का प्रयोग कैसे करें?”

राष्ट्रीय विज्ञान संग्रहालय परिषद, संस्कृति मंत्रालय, भारत सरकार द्वारा 24.06.2024 को "हिंदी कार्यशाला: दैनंदिन सरकारी कामकाज में हिन्दी का प्रयोग कैसे करें?" विषय पर एक ऑनलाइन कार्यशाला का आयोजन किया गया। इस कार्यशाला में नेहरू विज्ञान केंद्र, मुंबई के 06 कर्मचारी शामिल हुए। कार्यशाला का संचालन श्री नवीन प्रजापति, वरिष्ठ सलाहकार एवं केंद्र प्रभारी, अनुवाद प्रशिक्षण केंद्र, केन्द्रीय अनुवाद ब्यूरो, राजभाषा विभाग, गृह मंत्रालय, भारत सरकार द्वारा किया गया। कार्यशाला का मुख्य उद्देश्य सरकारी कामकाज में हिंदी के प्रयोग को बढ़ावा देना और अनुवाद में सहूलियत प्रदान करना था।

Asteroid Day Commemoration

Asteroid day is being celebrated at the Centre on 30.06.2024. A photo-exhibition of Asteroid Missions & online quiz on Asteroids is being organized on 30.06. 2024. In addition, we have organized several online lectures in association with Akash Ganga Centre for Astronomy, Amateur Astronomers Association, Mumbai a Mangalore Astronomy Science Club.

RAMAN SCIENCE CENTRE, NAGPUR

Planet Parade

The Centre organised a special programme 'Planet Parade' for visitors to mark the rare planetary alignment adorning the eastern sky on 04.06.2024 at 04:00 am. In the early morning, 24 students including members of the Centre along with their parents were present to have a glimpse of the rare event but the cloudy sky proved detrimental for observation. The Moon was only seen for some time.

World Environment Day

World Environment Day was commemorated at the Centre on 05.06.2024 by organising various programmes on this year's theme 'Land Restoration, Desertification & Drought Resilience'. The programme initiated with inauguration of 'Ashtanghriday' Medicinal Plant Exhibition at the hands of Dr Partha Pratim Adhikary, Principal Scientist, ICAR - National Bureau of Soil Survey & Land Use Planning, Nagpur. Dr Adhikary delivered a popular talk on the theme. Various programmes such as Open House Quiz, Drawing Contest on theme 'Desertification - a silent threat to our planet', workshops on 'Seed Ball Making' and 'Eco-friendly Tooth Paste Making' conducted by Ms Pooja Goyal, Rangreen Yoga Studio, Nagpur. The lecture was followed by prize distribution and tree plantation. In all 160 students attended the programme. ISHRAE, Nagpur Chapter & Pathak Pharma supported the event whereas Maharashtra Times was the media partner.

International Day of Yoga

International Day of Yoga was observed at the Centre today on 21.06.2024 for the staff members. Mrs Madhavi Mardikar, Director, Dept. of Physical Education, Rashtrasant Tukdoji Maharaj University, Nagpur delivered a popular talk on 'Yoga for Self & Society'. Also, Mrs Mardikar, a trained Yoga teacher guided the staff members to perform various asanas / poses, tratak etc. The Staff Members also actively participated in the Online Yoga session organised by Nehru Science Centre Mumbai in collaboration with Art of Living, Mumbai.

Test Your Experimental Skills - Level 1

The 12th Experimental Skill Test was conducted at the Centre in collaboration with Bombay Association for Science Education (BASE), Mumbai, on 23.06.2024. Twenty students from different schools in Nagpur, Bhandara, Godhani, Umred, and Gondia (from grades 8 to 12) participated. The students were assessed through two science experiments involving direct measurement of physical quantities. Six observers, including ex-HoDs, professors, and PGTs from colleges and schools (two each from Chemistry, Physics, and Biology), evaluated the students based on their experimental skills, such as

taking readings, making measurements, plotting graphs, calculations, and data presentation. Students scoring 75% and above were awarded certificates.

REGIONAL SCIENCE CENTRE BHOPAL

Innovation Hub

The Innovation Hub of The Centre organized nine orientation sessions on topics such as Auxanometer, Hydrometer, Identifying Metals & Metalloids with Coloured Flame, Barometer, Spectacle Physics, Experiments on Lemon, Experiment on Capillary Action, Balance the Force, and Logic Gate. A total of 36 students participated in all these sessions. Besides these orientation sessions, a hands-on workshop titled "Which Food is Good for Us: Acidic or Basic?" was also organized for school students of classes VIII to XII, with a total of 7 students taking part. Furthermore, two orientation sessions are planned to be organized on the coming weekend (29.06.2024 & 30.06.2024).

Environment Day 2024

With the goal of raising awareness about the role of our environment in sustaining life on Earth and our commitment to protecting its basic life support system, The Centre observed World Environment Day on 05.06.2024. The event included a painting competition for school children on the theme 'Go Green to Save Our Blue Planet,' a nature trail with plant identification on campus, and a screening of a nature film for students and the general public. Additionally, staff members planted trees on the campus. Prizes and certificates were awarded to meritorious participants of the painting competition, and all nature trail participants received certificates. A total of 150 participants, including students, teachers, parents, housewives, and the general public, took part in these events.

Experimental Skills Test

To promote experimental skills in science, The Centre, in collaboration with the Bombay Association of Science Education (BASE), organized a three-day training cum test program for students and teachers of Madhya Pradesh from 07.06.2024 to 10.06.2024. Led by Dr. P.K. Joshi, Chairperson of BASE, 7 local school teachers were trained to facilitate and evaluate experiments in Physics, Chemistry, and Biology. The final test for 12 students was conducted on 09.06.2024. Certificates of Merit were awarded to top students, and Certificates of Participation were given to all teacher facilitators.

Aditya L1 Mission Awareness Program

The Centre, in collaboration with Eklavya Foundation Bhopal, organized a 'Meet the Scientist' session on 13.06.2024 from 10:30 AM to 11:30 AM. Prof. Bhas Bapat from IISER Pune, closely associated with the Aditya L1 mission, discussed the advantages of a solar observatory in space and the Aditya L1 mission's onboard instruments. A total of 150 visitors participated, including students, teachers, parents, and housewives.

Zero Shadow Day Observation

The Centre observed Zero Shadow Day for Bhopal on 13.06.2024. At local noontime, the Sun cast no shadows, with the zero-shadow moment at around 12:20 PM. Various devices demonstrated this phenomenon to 100 visitors, comprising students, teachers, parents, and housewives.

International Day of Yoga Celebration

The Centre celebrated the 10th International Day of Yoga with two practical yoga sessions. The first, for city school students and teachers, was led by Shri Amit Kumar Chouhan, Ph.D. Scholar and Yoga Expert, with 34 participants. The second session, coordinated by Nehru Science Centre, Mumbai, and The Art of Living, Mumbai, involved 25 staff members. Additionally, 34 students participated in a pictorial quiz and a science film show on Yoga and its benefits.

International Asteroid Day Observance at the Centre

The Centre will observe International Asteroid Day from 27.06.2024 to 30.06.2024. An online public talk titled "How (and Why) NASA Moved an Asteroid: Near Earth Objects, Planetary Defence, and the DART Mission" will be delivered by Dr. Thomas S. Statler, Lead Scientist at NASA Headquarters, USA, on 27.06.2024 at 10:00 AM. Additional activities include a hands-on workshop on "Asteroids and Their Characteristics," a poster making contest themed "Defending our Planet: Asteroid Awareness & Preparedness," and a science film show featuring "51 Degrees North," scheduled from 28.06.2024 to 30.06.2024.

GOA SCIENCE CENTRE & PLANETARIUM, PANAJI

Creative Science Workshop

As a part of Vacation Creative Abilities activity, an activity-oriented Biotechnology workshop was conducted for the Higher Secondary School students from 28.05.2024 to 01.06.2024. During the

workshop students learnt techniques like protein isolation, Extraction of DNA etc. In total 6 students were present.

Sci-Birthday Celebration

A Sci-Birthday was celebrated on 03.06.2024. During the celebration, the birthday guests were given a guided tour to the galleries, 3D show, Planetarium show, Science Toy Making session & Science demonstration. Total 25 kids attended the birthday.

Jayant Smruti: Science Popularization Lecture

The Centre in collaboration with Vidgyan Parishad, Goa organized a popular science lecture on spirituality and science on 02.06.2024 in the auditorium of the Centre. The lecture was organized in the memory of late Shri Jayant Sahasrabudhe, former National Organizing Secretary, VIBHA. The lecture was delivered by Dr. Shankar Tatwawadi, Mentor, Vibha, Retd. HOD from BHU. In total around 140 teachers, students attended the lecture.

World Environment Day celebration

The Centre organized world environment day on 05.06.2024 by conducting following programs:

- **Plant a tree Plant a life campaign**
The staff and members of the Centre planted fruit bearing plant saplings in the premises of the Centre. In total 18 staff were present.
- **Online Environment Quiz**
An online environment quiz was organized for the school students. In total 105 students participated.
- **Plastic Lion Model**
A model of Lion made from around 832 plastic bottles was fabricated in-house and installed in the park of the Centre.

Test Your Experimental Skill

The fourth Test Your Experimental skills exam was organized on 16.06.2024 by the Centre. During the experimental skill test students were asked to perform two experiments for skill assessment. In total 16 students participated and two were awarded certificate.

International Yoga Day

The staff of Goa Science Centre practiced Yoga Asanas from 12.00noon to 1.00pm on 21.06.2024 on the occasion of 10th International Day of Yoga. The yoga session was conducted online by Nehru Science Centre, Mumbai in collaboration with Art of Living. A popular science lecture on Harmony & Yoga was also organized for the staff of the Centre. The lecture was delivered by Dr. Sitakant Kamat Ghanekar, General surgeon trained in Cancer surgery, Palliative care & Yog therapy. In total around 19 staff were present

Inauguration of Kids Play Station

The Centre inaugurated the Kids play station installed in the science park on 27.06.204. Shri Shashikant Punaji, Director, Bal Bhavan, Campal Goa was the Chief Guest for the function. In total around 40 children were present for the inauguration.

DISTRICT SCIENCE CENTRE, DHARAMPUR

Mushroom Cultivation Training Programme

Innovation Hub at DSC, Dharampur organized a Mushroom Cultivation Training Programme from 05.06.2024 to 07.06.2024. A total of 28 students participated, gaining hands-on experience and theoretical knowledge in milky mushroom farming. The programme covered substrate preparation, inoculation techniques, cultivation, and commercial aspects. This training aimed to promote sustainable agriculture and entrepreneurial opportunities in mushroom cultivation. The workshop not only empowered students with practical skills but also illuminated the future of Milky mushroom cultivation, contributing to agricultural innovation and economic opportunities.

1-day Mushroom Cultivation Training Programme

Innovation Hub, District Science Centre, Dharampur organized a 1-days workshop on Milky Mushroom Cultivation training programme, for students of Kedi school, Nagariya on 10.06.2024. Attended by 20

students, the program provided invaluable insights of mushroom cultivation, bag filling, and learned about factor affecting mushroom growth. Practical sessions equipped participants with hands-on experience, fostering a deeper understanding of sustainable agriculture.

World Environment Day

World Environment Day was celebrated at DSC Dharampur in collaboration with RFO, Samajik Vanikaran, Dharampur on theme "Land Restoration, Desertification & Drought Resilience" on 05.06.2024 by organizing various educational activities. To mark the event planting of saplings was done during the program. About 150 saplings distributed to the students and general visitors for plantation. A popular Science Talk was organized on topic "Environment Protection through Innovation; Opportunities under SSIP 2.0" delivered by Shri Rahul V. Prajapati, Asstt. Prof. Govt. Engineering College, Valsad. Open house quiz on "Our Environment" was organized for the students. Documentary film was also screened for the students. According to theme "Land Restoration, Desertification & Drought Resilience", a training program on Pre Monsoon Mushroom Cultivation in which students provided the basic knowledge about Mushroom Cultivation. In all 281 students and visitors participated in the program.

World Food Safety Day

On 07.06.2024, the Innovation Hub, DSCD, celebrated World Food Safety Day on the theme of "Food Safety : Prepare for the Unexpected" by organizing a popular talk on Food Microbiology and a demonstration on detecting food adulteration. The event attracted 26 students keen on learning about food safety. Dr. Dehin Bhagat, Assistant Professor of Microbiology, was the guest speaker, sharing valuable insights into food borne pathogens, contamination prevention, and the significance of maintaining food hygiene. The demonstration on food adulteration detection showcased practical techniques to identify common adulterants in everyday food items. The program aimed to enhance students' understanding of food safety, ensuring they are better informed about maintaining health through safe food practices. Fun at Low Temperature – Liquid Nitrogen show was conducted for the participants. Total 26 students participated in the program.

World Sickle Cell Anemia Day.

On 19.06.2024, the Innovation Hub, DSCD, organized an awareness programme in observance of World Sickle Cell Anemia Day. Junior Mentor Gayatri Bisht prepared an informative presentation to educate students about the genetic disorder. The session covered the causes, symptoms, and treatment options for sickle cell anemia, emphasizing the importance of early diagnosis and regular medical care. The engaging presentation aimed to raise awareness among the students about the challenges faced by those living with the condition and the importance of support and research in combating the disease. The programme was well-received and fostered a deeper understanding of sickle cell anemia. In total 43 students attended the programme.

International Yoga Day

On 21.06.2024 10th International Yoga Day was celebrated on theme "Yoga for Self and Society" at District Science Centre, Dharampur. Staff member of DSC, Dharampur participated in the programme. Yoga Trainer Mrs. Prerna Mahant, Yoga Coach, Dharampur, Gujrat State Yog Board conducted the yoga session. To mark the event 21 students of Kedi School performed different Yogasan on song. Online Live session was organized by Nehru Science Centre, Mumbai in collaboration with Art of Living Center on 21.06.2024. 25 DSCD staff members participated in online yoga session. Open House Quiz was conducted on Yoga for students & staff. In all, 50 staff members, students & general visitors participated in the programme.

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"हिंदी कार्यशाला दैनंदिन सरकारी कामकाज में हिन्दी का प्रयोग कैसे करें?" "कार्यशाला का आयोजन राष्ट्रीय विज्ञान संग्रहालय परिषद, संस्कृति मंत्रालय, भारत सरकार ने 24.06.2024 को किया। इस कार्यशाला का संचालन श्री नवीन प्रजापति, वरिष्ठ सलाहकार एवं केंद्र प्रभारी, अनुवाद प्रशिक्षण केंद्र, केन्द्रीय अनुवाद ब्यूरो, राजभाषा विभाग, गृह मंत्रालय, भारत सरकार द्वारा किया गया। इस कार्यशाला में जिला विज्ञान केंद्र धरमपुर के नामित अधिकारी और कर्मचारी ने प्रतिभागिता की। कार्यशाला का मुख्य उद्देश्य दैनंदिन सरकारी कामकाज में हिन्दी का प्रयोग को बढ़ावा देना था। इसके माध्यम से भाषा के प्रचार-प्रसार को बढ़ावा देने का प्रयास किया गया ताकि अधिकारी एवं कर्मचारियों को हिंदी में अनुवाद करने में कोई कठिनाई ना हो।

नगर राजभाषा कार्यान्वयन समिति की छः माही बैठक:

जिला विज्ञान केंद्र धरमपुर ने दिनांक 27.06.2024 को आयकर कार्यालय वलसाड में नगर राजभाषा कार्यान्वयन समिति की छमाही बैठक में प्रतिभागिता की। बैठक में राजभाषा के वार्षिक कार्यक्रम पर चर्चा उपरांत सदस्य इकाईओ के राजभाषा कार्य की समीक्षा की गई।

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