

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

NEHRU SCIENCE CENTRE, MUMBAI

Teachers' Training Programme

The Centre organized a five-day teachers' training program from 01.07.2024 to 05.07.2024. The program focused on providing hands-on experience in utilizing educational kits for interactive teaching. Topics covered included Value of Pi (π), the area of a circle, the Pythagorean Theorem, brain model, Archimedes principle, and Foldscope. Participants also explored the Centre's facilities to enrich their understanding of science. The program aimed to equip educators with innovative teaching methodologies to inspire young minds in science education. 16 trainee teachers from Clara's College of Education were part of this Training Programme.

World Population Day Events

The Centre organized an Online Quiz Contest to commemorate World Population Day on 11.07.2024. The Contest invited participants of all ages to test their knowledge on various population-related topics. A total of 168 enthusiastic individuals registered and actively participated in this quiz, showcasing their expertise in the subject matter.

International Moon Day Celebration

The Centre commemorated International Moon Day 2024 with a series of exciting and educational events designed to inspire and inform on 20th July 2024. These events provided participants with a deeper understanding of the Moon and its significance in space exploration. The day's activities included a hands-on workshop, special shows, and open house quizzes.

1. Hands-on Workshop: 'Exploring the Moon'

The highlight of the celebration was a free hands-on workshop tailored for students from 6th to 8th grade. This workshop, themed "Illuminating the Shadows," delved into the intriguing aspects of lunar phases and eclipses through engaging presentations and hands-on activities. A total of 35 students participated in the workshop, which featured comprehensive sessions explaining the phases of the Moon and the science behind eclipses. Hands-on experiments and demonstrations further reinforced the students' learning experience.

2. Special Shows: Moon and Its Missions

To provide visitors with an immersive experience, NSC Mumbai conducted special shows at the Science on Sphere facility. These shows offered an in-depth exploration of various Moon missions, celebrating past achievements and discussing future endeavors in lunar exploration. The general visitors of NSC Mumbai were treated to detailed narratives on historic and contemporary Moon missions, highlighting technological advancements and discoveries. Total 4 shows were conducted in which 43 students and general visitors participated.

3. Open House Quiz

Adding a fun and competitive edge to the celebration, NSC Mumbai organized four open house quizzes throughout the day. These quizzes tested participants' knowledge about the Moon and space science, with around 278 individuals, including students, participants, and general visitors, taking part. The winners of the quizzes were awarded science toys as prizes. The quizzes comprised multiple questions covering various aspects of lunar science and exploration, making the activity both challenging and educational.

Experimental Skill Test on 21.07.2024

The Centre in collaboration with the Bombay Association for Science Education (BASE), coordinated a session of the Experiment Skill Test at the Centre on 21.07.2024. This program was designed for 15 participants registered from grades 8th to 12th. During the test, the students were provided with experimental setups and were expected to conduct experiments under the supervision of experts from the Centre and BASE. The primary objective of this initiative was to evaluate the participants' ability to perform experiments and demonstrate their keen observational skills.

Science Ke Funday Workshop - 28.07.2024

The event attracted 11 families (44 persons) to promote family engagement in science-related activities, creating a sense of wonder and enthusiasm for science. The event featured hands-on experiments, demonstrations, and all shows at the Centre, aiming to engage participants in educational and entertaining activities. These events aimed to bond families while exploring the fascinating world of science.

Screening of Films of Planet Earth III series

The Centre in collaboration with Sony BBC Earth organized a film screening of 2 episodes of Planet Earth III series on 18th July 2024. The episodes were - Coasts and Humans. In all 558 students and teachers participated in the event.

Vaccine: Injecting Hope Events

- 1. Popular Science Lectures** the Centre organized this month organized a total of 04 Popular Science Lectures in Hybrid mode this month, the details of the lectures are given below:
 - Why do you choose to be a doctor? on 1st July to commemorate Doctor's Day**
A lecture titled "Why Do You choose to be a doctor?" by Dr. Jayanti Shastri, a professor at Maharashtra University of Health Sciences, was held on 01.07.2024. The event was conducted in both online and offline modes and attracted a total of 152 students and teachers physically and 26 participants on Zoom platform and the Facebook reach till 29th July is 565.
 - Human papillomavirus Vaccine: Myths and Misconceptions on 05.07.2024**
On 05.07.2024, a lecture on "Human Papillomavirus Vaccine: Myths and Misconceptions" was delivered by Dr. Reena Wani from Hinduhrudaysamrat Balasaheb Thackarey Medical College (HBTMC) and Dr. Rustom Narsi Cooper Municipal General Hospital. The lecture had 323 views on the Center's YouTube account, and 124 teachers and students attended the event
 - Vaccines, Past, Present and Future on 12.07.2024**
On 12.07.2024 a lecture on the topic Vaccines, Past, Present and Future was delivered by Dr Tanu Singhal, MD Pediatrics (AIIMS, New Delhi), MSc Infectious Disease, (London School of Hygiene) and Consultant, Smt Kokilaben Dhirubhai Ambani Hospital, Mumbai. The event was organized in Hybrid mode. The lecture had 94 views on the Center's YouTube account, and 213 teachers and students attended the event.
 - Lecture on Prevention of Monsoon-Related illnesses on 25.07.2024 & prize distribution**
A lecture on "Prevention of Monsoon-Related Illnesses" was held on 25.07.2024, presented by Dr. Jayanti Shastri from Maharashtra University of Health Sciences. The event was conducted in both online and offline formats, with 47 views on the Center's YouTube account, and 258 teachers and students attended the event
- 2. Workshop on World of Microbes on 03 & 04.07.2024**
A hands-on workshop on the world of Microbes was organized for school students for 2 days. 17 students participated in the workshop. The students were given exposure to the different techniques involved in conducting microbiology experiments such as - media preparation, autoclaving, inoculation, incubation and observation under Microscope and they also learnt about maintaining the aseptic environment to perform microbiological activities.
- 3. Street play titled 'Ye hai Jaruri' on 06.07.2024**
The Centre organized street plays written and enacted by the professionals from Natyashala Charity Trust on creating awareness about the importance of vaccines and about the exhibition on Vaccines Injecting Hope at 3 different places – at NSCM, at Veermata Jijabai Bhosale Udyan & Zoo and at Marine Drive. In all 678 visitors enjoyed the plays
- 4. Make your own Pocket Microscope on 05.07.2024**
A workshop on making pocket microscope was held on 5th July for 82 working and trainee teachers. They were given the guidance to build the pocket microscope and also how to use Mobile phones and different apps to use it in the classroom.
- 5. Painting Contest on 13.07.2024**
A painting contest was organized on 13.07.2024, for students in grades 6th to 8th. The theme of the contest was "Vaccines Are Helpful," and each school was represented by five students. A total of 87 students participated in the event.
- 6. Slogan Writing Contest on 15.07.2024**
On 15.07.2024, a slogan writing contest was held for students in grades 6th to 8th. The theme was "Importance of Vaccines," with each school sending five participants. A total of 63 students took part in the contest.
- 7. Written Quiz Contest on 16.07.2024**
A written quiz contest on "World of Microbes" was organized on 16.07.2024, for students in grades 8th to 10th. Each school was represented by five students, with a total of 59 participants in the event.
- 8. Street Play Contest on 18.07.2024**
A street play contest was held on 18.07.2024, for students in grades 6th to 8th. The theme was "Vaccines: Injecting Hope," and 4 teams of 8 students each school participated in the event. The event saw a total of 48 students

9. Treasure Hunt Contest on 19.07.2024

On 19.07.2024, a treasure hunt contest was organized for students in grades 6th to 9th. Teams of four students from each school participated, and the event was held in the Exhibition Hall with clues scattered throughout the location. A total of 54 students took part in the contest.

10. Mobile Science Exhibition: Vaccine Injecting Hope

The Centre organized a Mobile Science Exhibition (MSE) 'Vaccine: Injecting Hope' in the govt. schools of Pune district. The bus began its journey on 28.06.2024 and has covered 34 sites in July 2024.

Sci-Mail

Sci-Mail for the month of July – September, 2024, the quarterly membership newsletter was published, shared and uploaded on Social Media handles of the Centre. The post has reached to 2,354 people till 30.07.2024.

RAMAN SCIENCE CENTRE, NAGPUR

Monsoon Package (Science Demonstration Lecture and Science Film Festival) programme

Special Science Demonstration Lecture and Science Film Festival programme is organised for the school groups visiting Science Centre from 23.07.2024 onwards. Science Demonstration lectures on topics 'Colorful Chemistry' & 'Fun with Physics' were conducted along with screening of syllabus based selected science films. 330 students from 2 schools participated in the programme. In all 2 SDL's and 4 film shows were arranged for these students.

Mobile Science Exhibition on 'Science in syllabus' @ Nagpur District

Mobile Science Exhibition unit on 'Science in syllabus' was flagged off to the schools of Rural area of Nagpur District on 23.07.2024. Science Film Shows and Science Demonstration Lectures were conducted during the programmes. The exhibition was organised on 4 sites for 7 days. 4284 visitors witnessed the exhibition and 3 SDLs were conducted for 493 students. The data is till 30.07.2024.

Mobile Science Exhibition on 'Hygiene and sanitation' @ Amravati District

Mobile Science Exhibition unit on 'Hygiene and sanitation' was flagged off to the schools of Amravati District on 22.07.2024. Science Film Shows and a Science Demonstration Lecture were conducted during the programmes. The exhibition was organised on 4 sites for 8 days. 6202 visitors witnessed the exhibition. 1 film shows were screened for 206 students and 1 SDLs was conducted for 200 students. The data is till 30.07.2024.

Mobile Science Exhibition on 'Curriculum based science'

Mobile Science Exhibition unit on 'Curriculum based science' was organised at VMV Commerce, Arts & Science College, Wardhaman Nagar, Nagpur during 26.07.2024 & 27.07.2024. In collaboration with PIB, Mumbai and Central Bureau of Communication, Ministry of Information & Broadcasting, Govt. of India, Nagpur, as a part of Kargil Vijay Diwas exhibition. About 410 students, teachers and general public visited the exhibition.

REGIONAL SCIENCE CENTRE BHOPAL

Innovation Hub Programmes

Innovation Hub of the Centre organised 12 Orientation sessions on the topics such as Anemometre, Moon Habitat, Phylogenetic Tree, Physics Laboratory Equipment's, Science of Spider Webs, Tensegrity Structure, Ornithopter, Identify Your Fingerprints, Water Level Indicator, Fascinating Science Behind Colors, Boiling Point of Water, Paper Aperture during the month of July, 2024. A total of 52 Students participated in all these sessions.

Outreach MSE programme at Govt. Subhash Excellence Higher Secondary school, Bhopal)

An outreach MSE programme with the Centre's three MSE units (i.e. How Things Work, Energy and Measurement) was conducted at Govt. Subhash Excellence Higher Secondary School, Bhopal from 08.07.2024 to 10.07.2024 (three days). Apart from the science van exhibition, one popular science lecture cum interactive session by Shri Saket Singh Kaurav, Curator 'E' & PC, RSC, Bhopal and two SDL programmes by education trainees were also conducted at the school. A total of 2,349 students and teachers visited the exhibition during this period.

Workshop on Alien Genetics

A Hands-on interactive Workshop on the subject 'Alien Genetics' was conducted by the Innovation Hub of the Centre from 16.07.2024 to 17.07.2024. A total of 43 girl students participated in the Workshop. As a part of the Workshop, participants developed some working models on the topic 'Alien Genetics' with all the raw materials, guidance and support provided by this Centre. The completed kits, along with Certificates of participation, were given away to the participants for use at home.

Celebration of International Moon Day

International Moon Day is celebrated on 20th of July every year worldwide with a goal to create an awareness on the exploration and harvesting of the resources of our nearest celestial neighbor Moon focusing on the mineral rich permanently shadowed craters of its South polar regions The Centre celebrated the International Moon Day on 20.07.2024 by conducting a Hands-on Workshop on the topic 'Are We Ready to colonize the

Moon' and by screening a Film on the topic 'Mysteries and Marvels of the Moon'. As a part of the Workshop, a 3D model of an ambitious human colony on the Moon was demonstrated and the participating students developed kits to see the 3D views of the Moon's surface (including its terrains and craters) with the help of Anaglyph technique. All the raw materials, guidance and support were given away to the participants to develop the kits and the completed kits were permanently given away to the participants for use at home. A total of 27 students and teachers participated in the Hands-on Workshop and a total of 75 students watched the screening of the Film Show.

Test Your Experimental Skill (TYES) –Second Batch

With a goal to promote experimental skill in Science, the Centre in collaboration with Bombay Association of Science Education (BASE) organised the second batch of TYES programme on 28.07.2024. An experimental skill-based test in subjects such as Physics, Chemistry and Biology was conducted wherein 19 students appeared in two seatings. All the meritorious competitors will be provided with Certificates of Merit.

Hands-on Workshop on Mendelian Genetics:

A Hands-on interactive Workshop on the subject 'Mendelian Genetics' was conducted by the Innovation Hub of this Centre from 19.07.2024 to 20.07.2024. A total of 7 participated in the Workshop. As a part of the Workshop, participants developed some working models on the topic 'Mendelian Genetics' with all the raw materials, guidance and support provided by this Centre. The completed kits, along with Certificates of participation, were given away to the participants for use at home.

GOA SCIENCE CENTRE & PLANETARIUM, PANAJI

5th Anniversary of Innovation Hub

The Centre celebrated 5th anniversary of Innovation Hub by organizing following program from 29.06.2024 to 1.07.2024

1. Robotics Workshop

A robotics workshop was organized for the Innovation Hub members on 29.06.2024. The workshop was conducted by the team members of Curious Minds, Goa. During the workshop members learnt basic construction of 4 different models using kits provided by Curious Minds. In total 25 members participated in the workshop.

2. Innovation Fair

An innovation fair was organized on 30.06.2024. During the fair the Innovation Hub members displayed projects they did throughout the year. In total 14 members participated.

3. Popular Science Lecture

A popular science lecture on the topic Innovation for Young Minds was organized for school students on 1.07.2024. The lecture was delivered by Shri Sudip Faldessai, Project Officer, Goa State Innovation Council, Fatorda, Margao. In total 153 students and teachers attended the lecture.

4. Valediction and Prize Distribution

The valediction and prize distribution were organized on 1.07.2024. The winners of the innovation fair were awarded prizes on this occasion. Shri Sudip Faldessai, Project Officer, Goa State Innovation Council, Fatorda, Margao, Shri Tapas Maharana, Curator 'D', Nehru Science Centre, Mumbai and Shri Vilas Chaudhari, Project Coordinator, Goa Science Centre were the dignitaries on the dais. In total around 157 students, teachers & Parents attended the program.

World Population Day

The Centre observed the World Population Day In collaboration with State Family Welfare Bureau, Directorate of Health Services, Goa by organizing the following Program:

1. Essay Writing Competition

An essay writing competition was organized for the Higher Secondary school students on 09.07.2024. The topic for writing the essay was 'rising population a threat to the environment'. In total 87 students participated in the competition.

2. Elocution Contest

An elocution contest was organized for the students of class VIIIth to Xth on 10.07.2024. The topic for delivering the speech was 'India becoming the most populous country: a boon or bane'. In total 44 students participated.

3. Popular Science Lecture

A popular science lecture on the topic 'healthy timing & spacing of pregnancies for wellbeing of mother & child' was organized on 16.07.2024. The lecture was delivered by Dr. Rajendra Borkar, Medical

Superintendent, South Goa District hospital, Margao. In total around 148 students & health workers were present.

4. Valediction and Prize Distribution.

The valediction and prize distribution were organized on 16.07.2024. During this event winners of the various competitions were awarded prizes and the various healthcare workers were felicitated. Dr. Shayeen Sayyed, Deputy Director, Medical, Directorate of Health Services, Goa was the chief guest of the function. Dr. Rajendra Borkar, Medical Superintendent, South Goa District hospital, Margao, Dr. Uttam Dessai, Chief Medical Officer, State Family Welfare Bureau, Directorate of Health Services, Goa and Shri Vilas Chaudhari, Project Coordinator, Goa Science Centre were the other dignitaries on the dais. In total around 156 students & health workers were present.

Mega Painting & Poster Designing Competition

The Centre organized a mega painting & poster designing contest on 18.07.2024 for the high school students. The competition was sponsored by Goa State Biodiversity Board, Goa. The painting competition was organized for the students of class Vth to VIth on the topics 'say no to plastic'. The poster designing competition was organized for the students of class VIIIth to Xth on the topics 'protect wildlife & preserve biodiversity. In total 315 students participated in the competition.

Popular Science Lecture on Marine Awareness

The Centre organized a popular science lecture on marine awareness on 19.07.2024 for the school students. The lecture was delivered by Shri Venkatesh Charloo, Founder Coastal Impact, Goa. During the lecture students were made aware of the effect of plastic pollution on marine life and solutions were highlighted to combat the problem. In total 96 students and teachers were present.

Moon Landing Day Celebration

The 55th moon landing Day was celebrated on 20.07.2024 by organizing the following Programs:

1. Popular Science Lecture

A popular science lecture on the topic 'moon landing & lunar science' was organized for the school students. The lecture was delivered by Shri Gaurav Dhumatkar, Secretary, Association of Friends of Astronomy, Goa. In total around 193 students and teachers attended the lecture.

2. Spot Quiz

A spot quiz on Moon was organized for the school students. In total 175 students participated.

Outreach activity

As an outreach activity a lecture was delivered to the students of Sunshine Worldwide School, Old Goa on 25.07.2024. The topic for the lecture was 'advancement in space technology & the people involved'. In total 56 students and teachers attended.

Mobile science exhibition

The Centre organized mobile science exhibition in the Pernem taluka wherein the bus visited 10 schools in the month of July. Apart from science exhibition various other programs such as science demonstration and science film show were organized in the schools. Till date 2945 students, teachers and general public visited the exhibition.

DISTRICT SCIENCE CENTRE, DHARAMPUR

Mushroom Cultivation Training Programme at Pimpri Chinchwad Science Park-Pune.

Pimpri Chinchwad Science Park & Planetarium, Pune organized a Mushroom Cultivation Training Programme from 30.06.2024 to 02.07.2024. In which Jr. Mentor Gayatri Bisht was invited to carry forward the programme. A total of 30 students participated, gaining hands-on experience and theoretical knowledge in Oyster 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 mushroom cultivation, contributing to agricultural innovation and economic opportunities.

World Chocolate Day.

On 07.07.2024, Innovation Hub, of the Centre, celebrated World Chocolate Day by organizing a chocolate making workshop. The event attracted 11 women keen on learning about chocolate. The celebration was marked by a special session led by Mrs. Dixita Bhagat, a renowned baker and owner of Glazzy Petal, Valsad. She conducted a comprehensive workshop on chocolate making, where participants learned about the different types of chocolate, their origins and also demonstrated the step-by-step process of creating the perfect fudgy brownie. She explained how dark chocolate, in particular, is rich in antioxidants, which can contribute to heart health, improve brain function, and provide a mood boost.

World Paper Bag Day.

On 12.07.2024 Innovation Hub, of the Centre celebrated World Paper Bag Day on theme "Sustainable Choices for a Greener Future". In which general visitors learned to make paper bags and carry it with them. In total 09 people participated in the programme. Paper Bag Day was celebrated on 12.07.2024 at the Centre. As a part of celebration, crafting of paper bag was done. General visitors took part in it. In all, 9 visitors participated in this event.

Paper Bag Making Workshop

On 14.07.2024, Paper Bag making workshop was held under Funway Sunday Club at The Lady Wilson Museum, Dharampur. The theme of event was "Sustainable choice for a Greener Future". The lecture was given by Shri P.D.Rathod, E.O. on the topic "Promoting Sustainability & Reducing Plastic Waste". Later, crafting of paper bag was done by students. The participation of a total of 23 students comprising 12 girls & 11 Boys.

International Moon Day

International Moon Day was celebrated on 20.07.2024 at the Centre under the theme "Illuminating the Shadows. As a part of celebration, Open House Quiz was organized. Total 40 visitors participated in Open House Quiz. Also, a documentary film on Moon was shown.

World Nature Conservation Day

On 28.07.2024, Innovation Hub, District Science Centre, Dharampur, in collaboration with the Valsad North Forest Division (Dharampur Range), organized a Nature Education Camp at Reserve Forest of Mankadban, Dharampur to celebrate Nature Conservation Day. The event, attended by 72 participants, including 32 females and 40 males (from KBS Commerce & NATRAJ Professional Sciences College, Vapi and other participants) featured informative sessions and engaging activities led by key figures such as Shri Hiren Patel (Range Forest Officer and I/c ACF), Shri Manilal Bhusara (Former District Education Officer and President EAC, South Gujarat), Shri Pragnesh Rathod (Education Officer 'B', DSC Dharampur), Rahul Shah (Junior Mentor, Innovation Hub, DSC, Dharampur), and Shri Mukesh Vayad (Animal Rescuer). Participants learned about the symbiotic relationship between flora and fauna, the geographical features of the Valsad District, survival skills in the forest, and precautions for trekking. The camp concluded with a pledge to protect forests and promote tree planting, successfully raising awareness and inspiring proactive conservation efforts.

Presentation for 10 Bagless Days Pre-Vocational Activities

Popular Science Lecture was given by Sh. P.D.Rathod (E.O.'B'), District Science Centre, Dharampur at District Institute of Education & Training (DIET) on 25.07.2024. The lecture was given through PPT on the topic "10 Bagless Days Pre-Vocational Activities". Nodal teachers & Head teachers of 101 Elementary Schools of Std. 6 to 08 participated in the program.

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