

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

### NEHRU SCIENCE CENTRE, MUMBAI

#### Amritkaal Video Series

The Centre as part of its ongoing World Science Facts video series has posted 01 film on the topic of Make sure what you eat next time. This video was posted on the Facebook and Instagram handles of the Centre on 03.05.2023. The video has been viewed more than 252 times.

#### Vacation Creative Science Workshop

The Centre organized Vacation Creative Science Workshop from April to June 2023. The details of the programmes are as per following:

- **Science Sparkle Workshop - 05.05.2023 to 07.05.2023**  
Participants in this workshop learnt the fundamentals of science while making simple science toys. 20 students were part of this workshop.
- **Art and Craft Workshop - 08.05.2023 to 12.05.2023**  
Participants made and painted take-away dolls out of popsicle sticks and paper cups. 14 students were part of this workshop.
- **Model Rocketry Workshop - 08.05.2023 to 12.05.2023, 15.05.2023 to 19.05.2023 & 29.05.2023 to 02.06.2023**  
3 batches of Model Rocketry were conducted during the month. Participants learnt about the basic underlying scientific principles in working of a Rocket. They learnt to make different parts of the rocket and also learnt about how to assemble those parts. They made and launched various models of chemically fueled and water rockets following the model racketeers' safety code. 58 students were part of these workshops.
- **The Paper Pilot Workshop - 08.05.2023 to 12.05.2023 & 15.05.2023 to 19.05.2023**  
Participants were given guided sessions on how to construct variety of paper Airplanes and were taught basic fundamentals of flight. They made different models of Airplanes. 12 students were part of these workshops.
- **Astronomy Level I Workshop - 08.05.2023 to 12.05.2023 & 15.05.2023 to 19.05.2023**  
Participants learnt various information about our solar system during this workshop with many hands-on activities. The concepts like rotation and revolution of the earth and moon, sun-earth-moon system, phases of moon, eclipses, and introduction to solar system through PPT presentation were explained. Students made models to understand concepts like Earth's spin, precession, astrolabe star map, and phases of the moon, eclipses, orbital tilt, constellation viewer and scale model of the solar system. 37 students were part of these workshops.
- **Arduino Uno Workshop - 08.05.2023 to 12.05.2023 & 15.05.2023 to 19.05.2023**  
Participants learnt about the Arduino platform, which consists of the Arduino Uno module as the hardware component and the Arduino Integrated development environment (IDE) as the software component. They learnt the programming and also learnt how to integrate different types of sensors with Arduino Uno. 7 students were part of this workshop.
- **Clay Modelling Workshop - 15.05.2023 to 19.05.2023**  
Under the guidance of in-house expert, participants learnt how to make clay dough of proper consistency with natural modelling clay. They also learnt how to build stable structures. They made various models using the clay dough prepared by them in this fun-filled workshop. 16 students were part of this workshop.
- **Chemistry Workshop - 15.05.2023 to 19.05.2023 & 29.05.2023 to 02.06.2023**  
Participants learnt about exothermic and endothermic reactions, how different markers alter colour, how a chemical transition occurs between states, and many other principles while experimenting with vibrant chemicals. 21 students were part of these workshops.
- **Math Quest Workshop - 22.05.2023 to 26.05.2023**  
Participants learned with numbers, shapes, models and hands-on activities, and made puzzles to understand Mathematics using play-way method. They were also given problem-solving techniques for better understanding of basic mathematical principles. 11 students participated in this workshop.

- **Physics Frenzy Workshop - 22.05.2023 to 26.05.2023 & 29.05.2023 to 02.06.2023**  
Participants made simple science toys and did experiments through which they learnt many physics principles. 28 students were part of this workshop.

### **Popular Science Lecture on 26.05.2023**

Dr. Rajkumar S. Pant, Professor, Department of Aerospace Engineering, I.I.T, Bombay, Mumbai gave popular science lecture on the topic 'How does a plane fly?' at the Centre on May 26, 2023 on the occasion of Paper Airplane Day. The lecture was conducted in a hybrid way –at the Centre for physical audience and on Zoom for virtual audience. The lecture began by outlining the fundamentals of flights. The speaker also covered some advanced techniques for flight using PowerPoint presentation and also included a few case studies. There were 178 offline participants and 177 online viewers.

### **Astronomy Olympiad**

The Centre held an Orientation Cum Selection Camp (OCSC) at the Nehru Science Centre in Mumbai from May 8 to 26, 2023. 20 students were chosen for this camp based on their performance in the Indian National Junior Science Olympiad 2023. These students learned about many astronomical topics over their 19 days stay at the camp from renowned lecturers in the fields of astronomy and astrophysics. Students were taken on educational excursions to the Nehru Planetarium, Mumbai, the GMRT and NCRA in Pune. On May 26, 2023, the Valedictory ceremony was held in the dignified presence of Sh. Mayank Vahia, Rtd. Professor, TIFR. Based on the combined test scores, each participant received a certificate of excellence, and the top three students were chosen to represent India at the 2nd International Olympiad on Astronomy and Astrophysics for juniors (IOAA-Jr.) 2023, which will be held in Volos, Greece from September 24 - 30, 2023.

### **Commemorating Paper Airplane Day**

On May 26, 2023, the Centre celebrated Paper Airplane Day. 22 participants enrolled themselves in an online workshop titled "Birdy Paper Glider". Participants created paper airplanes including the Falcon, Super Glider, Rocket, Spin Plane, Hanger, and others. 81 participants successfully completed an online quiz with the theme of "planes."

### **World No Tobacco Day**

On May 31<sup>st</sup>, 2022 every year, World No Tobacco Day (WNTD) is observed all over the world following different theme every year. The theme of this year is "We Need Food, Not Tobacco."

The Centre along with Tata Memorial Centre, and Action Council Against Tobacco, India has announced following events to spread awareness about this day:

- **Online Painting Contest**  
An Online Painting Contest is being organized at the Centre. The Centre has started collecting the entries online starting May 31, 2023 to June 15, 2023. The theme of the contest is 'We need food, not tobacco'. The results of this contest will be announced on June 20<sup>th</sup> 2023 on the Facebook page of the Centre.
- **Short Film Contest**  
An Online Slogan Contest is being organized at the Centre. The Centre has started collecting the entries online from May 31, 2023 to June 15, 2023. The theme of the contest is 'We need food, not tobacco'. The results of this contest will be announced on June 20<sup>th</sup> 2023 on the Facebook page of the Centre.
- **Slogan Contest**  
An Online Slogan Contest is being organized at the Centre. The Centre has started collecting the entries online from May 31, 2023 to June 15, 2023. The theme of the contest is 'We need food, not tobacco'. The results of this contest will be announced on June 20<sup>th</sup> 2023 on the Facebook page of the Centre.
- **Quiz Contest**  
A Quiz on Tobacco was organized on May 31, 2023, 65 participants have solved the quiz till now. The quiz is on and will continue till 10.00pm.

### **Commemorating 25<sup>th</sup> National Technology Day**

The Centre organised various programmes during May 11 – 13, 2023 to commemorate the 25<sup>th</sup> National Technology Day. On May 11, 2023 Open House quiz and Chalte-Chalte (On the spot) quiz were conducted at the Centre for the visitors of the Centre. On 12<sup>th</sup> May an online quiz on the topic science and Technology in India was conducted. 143 participants participated in these quizzes. On May 13, 2023 the Centre in collaboration with Indian National Young Academy of Science (INYAS), Mumbai Chapter and Indian Nuclear Society (INS) organized a seminar titled 'Opportunities in Nuclear Sciences'

to Commemorate a Quarter Century of Technological Excellence. The seminar was mainly focused to spread awareness of role of Nuclear Science in daily human life and to give information about the various career opportunities in the field of Nuclear Science. More than 500 students from all over India registered for the event. About 168 students from various universities attended the offline session at the Centre. The event was streamed on the YouTube channel of INYAS and was shared on the YouTube channel of NSC as well. Shri Mukesh Singhal, Former Director, Nuclear Power Corporation of India Ltd inaugurated the event. He briefed about the various peaceful uses of Nuclear Energy in his inaugural talk. Following sessions were organised on the day

Sl. No.	Speaker	Topic
1	Dr A K Dureja Head, HRD division, BARC	Opportunities at DAE and selection procedures for various posts
2	Sh Sanjeev Sharma, Scientific Officer 'G' and  Shri S K Yadav Scientific Officer 'G'	Nuclear Energy: Green Energy Source Generation 1 to Generation 4 reactors

### Commemoration International Museum Day

The Centre commemorated International Museum Day, a global event celebrated annually on May 18<sup>th</sup>, 2023. This year the Centre presented a distinctive exhibition titled "My Own Collection," which featured a captivating display of objects that left visitors enthralled. The exhibition showcased the remarkable collections of three distinguished individuals:

- **Shri Abhay Phatak: Rare Travel Memorabilia & Water Bottle Labels**  
A rare travel memorabilia and water bottle labels provided a captivating glimpse into different cultures and destinations around the world. Visitors had the unique opportunity to delve into the rich history of travel through these unique artifacts.
- **Shri Prasanna Vavhal: Her Majesty Queen Elizabeth II Bank Notes**  
Shri Prasanna Vavhal's assortment of banknotes from various countries, all featuring Her Majesty Queen Elizabeth II, represented a fascinating aspect of numismatics. This collection allowed visitors to appreciate the intricate artistry and historical significance of currency.
- **Shri N. Krishnamoorthy Achary, LIMCA Book of Record Holder: Objects with 786 Number**  
Shri N. Krishnamoorthy Achary's collection of items and things bearing the number 786 presented a captivating exploration of numerology and its cultural significance. Visitors had the opportunity to discover the deep-rooted symbolism associated with this particular number.

The exhibition received overwhelming praise from the visitors, who expressed great admiration for this special exhibition. This International Museum Day event at Nehru Science Centre welcomed over 2,000 visitors throughout the day.

### Outreach programme at Viviana Mall

The Centre conducted an outreach programme at Viviana Mall, Thane from May 5-14, 2023. The programme included following activities:

- **Science exhibition**  
10 stand-alone exhibits were on display at the Viviana Mall, Thane from May 5 - 14, 2023. 10 volunteers were trained to explain these exhibits to the visitors of the mall. Total 19,972 visitors visited this exhibition during the period.
- **Science Shows**  
On May 5 - 6, 2023, Science Shows, Liquid Nitrogen shows (8 Nos) were conducted for the visitors. Around 4,126 visitors enjoyed the shows.
- **Make and Take activities**  
On May 5 - 6, 2023, Make and Take activities were conducted for the visitors, especially the young school students. Rotocopter, Mobius bands, Balloon rocket, constellation viewer, Reaction Time and curling snake were a few of the activities. The number of participants for the activities was 3,326.
- **Sky Observation Programme**  
On May 5, 2023, Sky Observation Programme was conducted in which around 550 people participated. They could see Moon in its eclipse stage as it was Lunar eclipse on the day.

- **Hands-on workshops**

The Centre conducted following workshops as a part of outreach programme at Viviana Mall:

1. **Joy of Doing Workshop – 07.05.2023**

3 batches were conducted on the day. Cup flier, Face-turning Giraffe, Pythagorean Cup, Climbing butterfly were the activities. 187 students were part of this workshop.

2. **STEAM Workshop – 12.05.2023**

04 batches on the topic were conducted. Dancing snake, Elephant's snout, Animation toy and Balancing Joker were the activities conducted. 204 students were part of this workshop.

3. **Creation with creatures – 13.05.2023**

04 batches on the topic 'Creation with Creatures' were conducted. Various science models with animal as theme were made by students, which includes Jumping Frog, Bird in a cage, Woodpecker, Balancing Butterfly and Crawling Animal. Various science concepts like magnetism, Persistence of Vision, Friction, Centre of mass, gravity, balance were explained with help of these activities. 199 students were part of this workshop.

4. **Science Sparkle workshop – 14.05.2023**

Participants in this workshop learnt the fundamentals of science while making simple science toys. Standing pencils, Hit me doll, Newton's Disc and Projectile motion were the activities conducted. 240 students were part of this workshop.

## **RAMAN SCIENCE CENTRE, NAGPUR**

### **Vacation Creative Science Workshops**

Vacation Creative Science Workshops were conducted in 6 disciplines at Raman Science Centre from May 1 to 6, 2023. In all 7 batches were conducted in which 149 students participated & 958 kits were fabricated during the workshop. The details are as under: -

<b>Discipline</b>	<b>Period</b>	<b>No. of Students</b>	<b>Titles of projects</b>	<b>No. of Projects</b>	<b>Total no. of Projects completed</b>
Astronomy II	01.05.23 to 06.05.23	30	1. Sun Dial 2. Astrolabe 3. Sun Ball Projector 4. Telescope 5. Star Dial	5	150
Model Rocketry II	01.05.23 to 06.05.23	30	1. Balloon Fan 2. Balloon driven Cart 3. Clinometer 4. Rocket stage I 5. Rocket Stage II	5	150
Aeromodelling II	01.05.23 to 06.05.23	20	1. Paper Glider 1 2. Roto-copter 3. Thermocol Glider I 4. Thermocol Glider II 5. Thermocol Glider III	5	100
Sci-Toy Making Workshop II	01.05.23 to 06.05.23	25	1. Bird in a Cage 2. Sound Sandwich 3. Shimmering Bird 4. Newton's Disc 5. Climbing butterfly 6. Balancing bird, 7. Vibrating snake 8. Flying toy 9. Magnus Cups 10. Cartesian Diver 11. Static Ele. Butterfly 12. Constellation Viewer	12	300

Discipline	Period	No. of Students	Titles of projects	No. of Projects	Total no. of Projects completed
Creative Science II	01.05.23 to 06.05.23	18	1. Soap Making 2. Slime Ball 3. Electroplating 4. Crystal Garden 5. Flower Dissection 6. Onion Cell Observation 7. Coin Box 8. Kaleidoscope	8	144
Robotics	08.05.23 To 13.05.23	16	1. RPM Calculator 2. Line follower robot 3. Colour sensing 4. Motor speed controller	04	64
Electronics	08.05.23 To 13.05.23	10	1. 5 v regulated Power supply 2. Timer 555 3. Astable multivibrator 4. Automatic street light 5. Sequential light control	05	50

### **National Technology Day**

National Technology Day was commemorated at the Centre by way of organising an Open House Quiz and a Popular Science Lecture on the theme 'Nuclear Technology' on 11 May 2023. Shri Manu Thandra, Scientific Officer, Atomic Mineral Directorate for Exploration and Research, Nagpur delivered the lecture. 129 students from various schools, Jhulelal Institute of Technology, Nagpur and members of the centre attended the lecture.

### **International Museum Day @ New Delhi**

The Centre actively participated in the International Museum Expo 2023 organised at Pragati Maidan, New Delhi during the celebration of International Museum Day from 18-20 May 2023. Exhibits viz Visual Gesture Analysis, Line to Live, Systems of Life etc. were displayed in the NCSM pavilion.

### **International Museum Day @ RSCN**

The Centre in collaboration with 'Chhand Vaibhav', Anthropological Survey of India, and Central Museum Nagpur, celebrated International Museum Day during 18<sup>th</sup> - 21<sup>st</sup> May 2023. A joint effort, an exhibition 'Collection make Connections' was inaugurated by H.E. Maharaja of Nagpur, Dr. Rajee Mudhoji Bhonsle, Past District Governor, Lions Club, Nagpur. The exhibition displayed artifacts and publications by the Anthropological Survey of India and 25 hobbyists. In addition Centre also organised many activities such as Recreation of Indus Valley Civilization Seal making workshop, Clay Modelling Live demonstration by Shri Vinayak Nitturkar, Asst. Curator, Central Museum, Liquid Nitrogen show, 4 open house quizzes on 'Know your Museums' etc. for students and visitors. In all 678 students participated in these programmes.

### **Zero Shadow Day**

No shadow Day was observed at the Centre on 26<sup>th</sup> May 2023. Various arrangements were made at Raman Science Centre to explain the phenomenon and to facilitate visitors to view the zero shadow effect. 234 students, parents and visitors participated in the programme.

### **No Tobacco Day**

No Tobacco Day was observed at the Centre on 31<sup>st</sup> May 2023. An Oral Health checking Camp was organized on the occasion. A team of Doctors from Global Nursing Home and Hospital, Sakkardara Nagpur, conducted a camp and examined the oral health of staff members, students and general public. About 130 people participated in the programme

## REGIONAL SCIENCE CENTRE BHOPAL

### Innovation Hub Programmes

Innovation Hub of the Centre organized 10 Orientation Sessions on topics such as 3D Modeling of DNA, The Skeletal System, 3D Model of Human Skeleton, Hands-on Geometry Part-I, Geometry and Shapes, Robotics - Basic Car, Robotics- Castor Bot, Plant Identification, Generate QR Code for Plants and Hands -on Geometry Part-II. A total of 62 students participated in these programmes.

In addition to this, an experimental project on the topic of 'Study of Alignment of Whispering Dish' and 'Floating Leaf Disk (Photosynthesis)' were also conducted in which 08 students participated. A special session on 'TOD-FOD-JOD: Keyboard' was also organised in which total 08 students participated. Besides this, Innovation Hub of RSC, Bhopal also celebrated 'World Honey Bee Day' in which two activities on 'Bee-hive Structure' and 'Honey Bees: Friends or Foe' were also organised in which total 08 students participated.

### Vacation Creative Science Workshop

The Centre organized 12 activity based courses among school students as a part of its Vacation Creative Science Workshop from May 2-31, 2023. These courses are: Art & Craft (Lower primary), Physics Can be Fun, Creative Mathematics, Telescope Making, Robotics & VR, Model Rocketry, Life Science, Wonders of Electronics, Wonders of Astronomy, Learning with Arduino, Enchanting Chemistry and Art & Craft (Upper Primary). In these Workshops, a total of 80 students participated and a total of 172 models were developed. The details of the programmes conducted are given below:

- **The Art & Craft (Lower Primary Group)**  
This session was conducted on May 2 and 3 wherein 7 students participated and each student developed two models such as a House model and a Boat model.
- **Physics Can Be Fun Workshop**  
This session was conducted from May 2-4 wherein 7 students participated and each student developed three models such as 'Expansion of Solids due to Heat', 'Invisible Coin' and 'Sand Turbine'.
- **Creative Math Workshop**  
This session was conducted from May 5 -6, 2023 wherein 6 students participated and each student developed two models such as 'I Can Tell Your Age' and 'Square Wheel on a Bumpy Road'.
- **Telescope Making Workshop**  
This session was conducted from May 8 -9, 2023 wherein 13 students participated and each student developed two models of refracting telescope having 2x and 3x magnifications.
- **Robotics & VR Workshop**  
This session was conducted from May 13-14 wherein 17 students participated and each students took part in three activities such as 'Hand Generator Car', 'Castor Bot' and 'Baseball Batter'.
- **Model Rocketry Workshop**  
This session was conducted on May 15, 2023 wherein 9 students participated and each student assembled and tested a rocket model.
- **Life Science Workshop**  
This session was conducted from May 16 -18, 2023 wherein 7 students participated and activity based programmes such as Eye Model, Blood Group Testing, pH Testing, Gram Staining, 3D modeling of biological specimen, Make A Fire Extinguisher, Flower Dissection and laboratory demonstration of Photosynthesis by Plants were conducted.
- **Wonders of Electronics**  
This camp was conducted from May 19-20, 2023 wherein 2 students participated. Projects such as 'Rectifier Circuit' and 'Electronic Harmonium' were developed during the programme.
- **Wonders of Astronomy**  
This session was conducted between May 22-24, 2023 in which 5 students participated. Kits such as Solar Eclipse model, Equinoxes & Solstices and Equatorial Sundial models were developed during the programme.

- **Learning With Arduino**  
This session was conducted between May 25-27, 2023 wherein 1 student participated.
- **Enchanting Chemistry**  
This session was conducted between May 29-31, 2023 in which three models such as 'Model of Carbon atom', 'Model of Sodium Atom' and 'Model of Isotopes of Carbon atom ' were developed and a total of 3 students participated.
- **Art & Craft for Upper Primary group**  
This session was conducted between May 30-31, 2023 and a model of Photosynthesis was developed wherein a total of 3 students participated.

### **International Museum Day**

The Centre celebrated International Museum Day from May 18-20, 2023 in collaboration with Archaeological Survey of India, Bhopal & Indira Gandhi Rashtriya Manav Sangrahalaya, Bhopal. As a part of the celebration, a temporary panel exhibition on 'World Heritage Sites - Sanchi and Bhimbetka' with a special corner showcasing some stone age tools excavated from MP was unveiled by Dr Manoj Kumar Kurmi, Superintending Archeologist, Archeological Survey of India, Bhopal Circle on May 18, 2023. The exhibition was kept on display for public during the entire period of the celebration. In addition to this, visit of underprivileged children to the Centre was organized on May 18, 2023 in which a total 40 students participated. The Celebration culminated with an Astro-Night Tourism programme which was organized on May 20, 2023 in the premises of Indira Gandhi Rashtriya Manav Sangrahalaya, Bhopal in which a telescopic observation of the evening sky was presented for the visitors. As a part of the programme, two Celestron refracting telescopes (Objective Lens aperture size: 4" each) and one Zeiss Refracting telescope (Objective Lens aperture size: 3") were used to show the magnified images of the visible objects of the evening sky such as Venus, Mars, Binary Stars, and Star Clusters. A total of 100 visitors participated in the programme.

### **GOA SCIENCE CENTRE & PLANETARIUM, PANAJI**

#### **Zero Shadow Day**

The centre observed Zero Shadow Day on May 2, 2023 by making special arrangement to see the rare phenomena of zero shadow. Around 228 students, teachers and general public witness and participated in the activities conducted related to zero shadow.

#### **Creative Science Workshop**

As a part of Vacation Creative Abilities Activity, an activity oriented Creative Science Workshop was conducted for the students in respective discipline.

- **Fun Science**  
The workshop was organized from May 8-12, 2023 for the students of class Ist to IVth standard in which total 25 students participated.
- **Model Rocketry**  
The workshop was organized from May 8-12, 2023 for the students of class Vst to VIIIth standard in which total 24 students participated.
- **Skill Development in Electronics**  
The workshop was organized from May 8-12, 2023 for the students of class VIIIst to Xth standard in which total 12 students participated.
- **Basic workshop on Arduino**  
The workshop was organized from May 17-21, 2023 for the students of class VIIIst to XIIth standard in which total 6 students participated.
- **Science Buzz**  
The workshop was organized from May 22-26, 2023 for the students of class Ist to Ivth standard in which total 11 students participated.
- **Creative Science**  
The workshop was organized from May 22-26, 2023 for the students of class Vst to VIIIth standard in which total 14 students participated.
- **Bio-technology**  
The workshop was organized from May 22-26, 2023 for the students of class VIIIst to XIIth standard in which total 20 students participated.

### **National Technology Day**

Goa Science Centre, Miramar celebrated the National Technology Day 2022 on May 11-12, 2023 details of the program as below:

- **Aeromodelling workshop** was organized for the students of class Vth to VIth standard on May 11, 2023. During the workshop participants were explained about the principles of flight and different aspects of aero planes and flying machines to tune with some baseline information. Students were taken to test flight and trained them in correcting flights and experimented with variables for correct flight. In total around 28 students participated in this Workshop.
- **Online Technology Quiz** was conducted for the students of class VIIIth to Xth standard on May 11, 2023 between 4.00pm to 4.30pm. Total 82 students participated in the quiz.
- **Popular Science Lecture** on topic Threats on the Internet and Precautions was delivered by Ms. Fiona Perpectual Coutinho, Assistant professor of Padre Conceicao College of Engineering, Verna on May 12, 2023. Total 106 students along with their parents attended the workshop.

### **International Museum Day**

Goa Science Centre celebrated the International Museum day by organizing exhibition on My Own Collection and popular science lecture. Details as below:

- **My Own Collection Exhibition**  
An exhibition on My Own Collection was inaugurated by Dr MM Ramesh Kumar, Former Scientist from National Institute of Oceanography, Goa on May 16, 2023 wherein 16 participants displayed their hobby collections like stamps. Coins, Gramophones, Mobile Phones, Match Box, Corals etc. The exhibition was open for the public up to May 18, 2023 and around 1649 visitors witness the exhibition.
- **Popular Science Lecture** on 'Goan Culture through Philately' was delivered by Dr Ramesh Kumar on May 18, 2023 followed by valedictory function. Total 102 audiences were present for the lecture.

## **DISTRICT SCIENCE CENTRE, DHARAMPUR**

### **World Asthma Day**

An education workshop on World Asthma Day was organized by Innovation Hub, DSCD on theme "Asthma care for all" the first week of Tuesday in May i.e., May 2, 2023. Students were explained about the cause of asthma and the severe age for the same through PowerPoint presentation. Different lung activities like fabrication of Lung model kit, were shown to enhance the knowledge on occurrence of asthma. An exercise on at last, short film on asthma was shown regarding treatment and medication for asthma. Total 45 students participated in the same.

### **National Technology Day**

National Technology Day was celebrated on May 11, 2023 at District Science Center, Dharampur. Shri Manoj Bharti, Branch Manager, SBI, Dharampur delivered A Popular talk on topic "Cyber Security" for the general public and students. In all 42 students, General visitors and staff members participated in program.

### **Model Rocketry Workshop**

Model Rocketry workshop was organized during May 11-14, 2023 at Innovation Hub, District Science Centre Dharampur. During the workshop students prepared model of water rocket and paper rocket. They have tested and launched the rockets successfully. In all 9 students participated in this workshop.

### **Robotics Workshop**

VCSW Robotics workshop was organized on May 12-14, 2023 at Innovation Hub, DSCD. Total 12 students participated in the workshop. During the workshop students were taught to create mechanical structure i.e. Pick and Grab, obstacle avoiding, object following robot. Students were introduced to different sensors like ultrasonic, gyro-sensors and touch sensor. They also learned about algebraic algorithm using block coding.

### **Art Craft and Clay Modeling Workshop**

Art, craft and clay modeling workshop during summer Vacation creative science workshop was organized for the student by Innovation Hub, DSCD from May 16-18, 2023. In which, total 22 student learned about basic knowledge of Mandala art and tools used in the same and they made their own mandala using Geometric tools and 0.5-point black ball pen. Students also learned Warli painting and

Culture behind Warli art. Furthermore, On Third Day Students were up skilled their Clay modeling knowledge and made their own clay models.

### **International Museum Day**

International Museum Day was celebrated on theme "Museum, Sustainability and Well-Being" on May 18, 2023 at District Science Centre Dharampur. To mark the event "My Own Collection Exhibition" was organized. Documentary film on museum was show to the audience. Open house quiz on Museum was also organized for the students. New attraction "Be an Astronaut" Selfie point nearby Planetarium was added during the celebration. In all 133 visitors and students participated.

### **International Day for Biological Diversity**

International day for Biological diversity was celebrated on theme "From agreement to action - bring back biodiversity" on May 22, 2023 at District Science Centre, Dharampur. A popular science lecture on "From agreement to action - bring back biodiversity" delivered by Dr. Krishna R. Rajput, KBS & NATRAJ College Vapi. Activity on Identification of Flora and Fauna of DSC, Dharampur, Visit of Lady Wilson Museum, Dharampur was organized. 42 students participated in this program.

### **Astronomy Workshop**

Astronomy workshop was organized during May 22-24, 2023 at District Science Centre, Dharampur. Basic astronomy learning tools like Star wheel, Position of Moon and planets, Zodiac scope, Astrolabe. Solar Eclipse were fabricated by students. On May 23, 2023 special sky observation programme was organized to observe the conjunction of Moon and Venus along with Mars, Beehive cluster (M44) identification of Ursa Major, Pole star, Gemini, Leo, etc. Total 15 number of students participated in this workshop.

### **Integrated Science Workshop**

Innovation Hub organized integrated science workshop on May 22-24, 2023 at District Science Centre, Dharampur. Total 10 Projects like Electrolysis, Double cone runs up hill, Burning of Magnesium Ribbon, Instant fire experiment with Potassium Permanganate & Glycerin, 3D magnetic field, DNA extraction of banana, Natural Indicator, Study of onion cell under microscope, making of kaleidoscope, Balancing nail experiments/ activities were completed during the workshop. Total 14 students participated in this workshop.

### **Zero Shadow Day**

Zero Shadow Day was observed on May 23, 2023 at District Science Centre Dharampur. Shadow disappeared when the sun came right over the head (Zenith). Special arrangements were made to observe Zero Shadow Day at the Centre. On 12:33 pm Zero Shadow moment was captured. 35 students and visitors make a human chain and observe that the shadow was disappeared.

### **Aero Modelling**

A workshop on Aeromodelling was conducted for the students from May 25-28, 2023. During the workshop participants developed working 5 different models of gliders of different size and material and successfully tested. In all 13 students participated in the workshop.

### **Research Paper Writing Workshop**

The workshop on research paper writing was organized on May 29, 2023 in collaboration with District Institute of Education and Training, Valsad. Total 48 participants (Teachers from Primary Schools and High Schools, Principals, CRC Co-ordinators) were involved. Experts form DSC, DIET and B.Ed. College have explained the scientific method of undertaking educational research with useful illustrations. Participants also enjoyed guided tour of Centre and other facilities including innovation hub they observed 3D printer and printed objects, robots and Different technical models.

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