MADHYA PRADESH

Vishal Patwa Pakhi Verma Atharv Khare

Aarush Mittal

Keshav Bankey

Giriraj Taunk Sakshi Sharma

Kavya Sengar

Jaydeep Dangi

Ravina Tripathi

Lakshya Raj Singh Thakur

Shiv Sharma

Richa Patel

Yogendra Singh

Harshit Singh Sisodiya

Rajshree Parmar

Shubhdeep Samajhdar

Dilraj Patel

Shikha Patel Athary Pandey

Mahak Gupta

Ajay Sahu

Tanishq Dhole

Shristi Rakesh Ritik Kurmi

Shivank Kumar Vishwakarma

Raj Kushwaha

Akansha Burman

Roshni Patel Vedanti Tiwari

MAHARASHTRA Riya Anil Sapkal Pratima Chandar Bhoye Fahmin Sayyed Tanmay Abhay Mahajan Devanshi Jayesh Gaikwad Baluch Umar Kausar JamalKhan Mrunmayi Shreedhar Bhosale Gupta Simran Santosh Suryavanshi Divya Digambar Thorat Sharayu Balasaheb Shourya Sujeet Samarth Diyan Dilip Gaikar Nivedita Ashok Chetwani Saara Sajjad Hasan Shaikh Vaibhav Pramod Sonawane

Virajit Uttam Funde Anushka Sudhir Nimbalkar

Dharati Ranjit Mane

Vaishnavi Narayan Jikamade Yadnesh Mahadu Walunj

Noopur Avadhoot Samant

Jordan Asher Manpadlekar

Pradnesh Ramdas Chondhe

Chinmay Omprakash Bhagat Anushka Amit Shah

Sarvesh Prakash Parulekar

Shweta Sagar Manugade

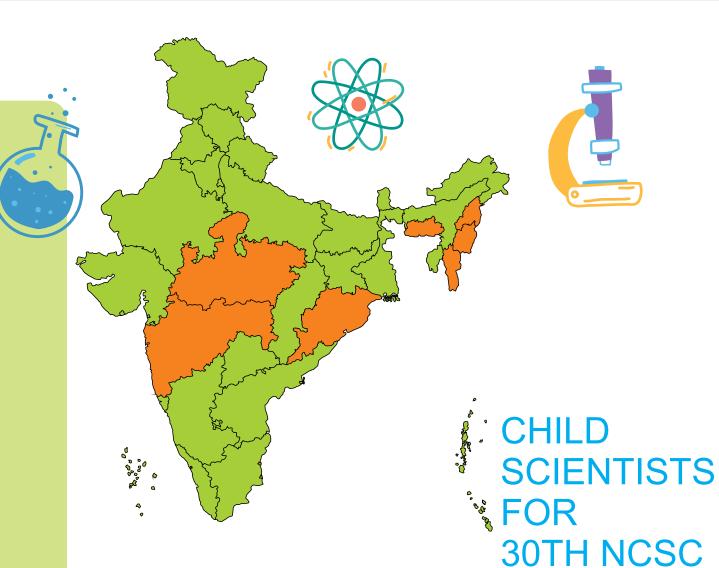
Parth Pravin Pise

Disha Dnyaneshwar Padwal

Anushka Rajendra Shinde

MANIPUR

Rajluxmi Moirangthem Nevidita Phairembam Moiangthem Romeo Meitei Angom Rajni Devi



Nongthombam Thaja Devi Huirongbam Enjalia Devi Saikhom Chingkhei Mayengbam Biku Singh Mayanglambam Julia Devi Akojam Chingkheinganba Meitei

MEGHALAYA

Nelly Mary Khydeit Palak Rishi Dafikordor Marwein Banteibor Lyngdoh Philawanshwa Maring Yokel Star Dura Dasani-iki Pasi Krethe B. Marak

MIZORAM

Nancy Khawpuimawii

Kc Lalpeksangi Lalrinnungi Ralte Lalnunthara Martina A Sonarung T. Lalremsangi Vb Khochai Zahneichhua Zawtha Valaric Jh Lalchhanhimi

NAGALAND

Pauheudiak Riame Kihunglei Izaisaple Isalung Mhachoni N Tsopoe Mezhiilhounuo Mepfhii-o Tiwalo Kath Shahphong Konyak Alokali Achumi

ODISHA

Ayushman Sahoo Ashirbad Panda Soumya Subhadarsini Tripathy Lipsa Rani Gouda Pratikshya Singh Pratyasha Mohanty Akash Rana Ritika Vedula

Siba Prasad Rath Satarupa Pati Soumya Ranjan Sahoo Jaydeep Jena Ayaskanta Bisoi Anushka Lakra Simran Subudhi Sushree Bidusmita Behera Debendra Majhi Muni Sahu Palak Priyadarshini Behera Madhumita Sahoo Sai Sanvi Padhy Shivani Samal Asthma Nayak Prangya Parimita Sahoo Saswat Mohapatra

Nikita Dehury

PUDUCHERRY

Fathima Sana Mirza E C Mohan P Karniyaa J Karthiga J Fredric Noel A Vettrivel K

PUNJAB

Suraj Kumar Harmanpreet Singh Parminder Singh Siya Rehan Rakhi Namya Sharma Simrandeep Kaur Akshita Bhatt Suhana Saranjeet Singh Yamya Nayyar Simran Kaur Arshdeep Kaur Vansh Kumar Akash Bawa Deepinderpreet Kaur

















Theme: Understanding Ecosystem for Health and Well Being



Child Scientists at the feet of Iron Man of India Visit of Child Scientists to the Statue of Unity

The Iron Man of India Sardar Vallabhbhai Patel

"My only desire is that India should be a good producer and no one should be hungry, shedding tears for food in the country". Once in a generation there comes a scholarly leader and visionary, who aims for the skies while feet firmly on the ground, mind made of diamond and fists made of iron, whose passion and sharp mind sculpted today's India.

"Alag Bhasha Alag Vesh, Fir bhi Apna Desh Ek".

The Statue of Unity is a tribute to the life of Shri Sardar Patel, a role model of unity and statesmanship. The tallest statue of the world enjoys a wonderfully picturesque location facing the Sardar Sarovar Dam, 3.2 kilometers away. This gigantic statue stands on the isle of Sadhu-Bet in River Narmada, at Ekta Nagar, District Rajpipla, Gujarat, with the majestic Vindhyachal and Satpuda Mountain Ranges in the backdrop. The statue is fast becoming one of the country's top tourist attractions. Aimed to inspire generations, the Statue showcases Sardar Vallabhbhai Patel's vision on unity, patriotism, inclusive growth and good governance.

The visit to the Statue of Unity, Ekta nagar, Kevadia was quintessential for our NCSC child scientists. This was the best way to associate with the sub theme of Day 3 NCSC that is "Social and Cultural Practices for Ecosystem". As they are from the different parts of India as well Asia, this visit had a great exposure for the children to get



the experience of Gujarati culture and ecosystem. Gujarat is the land of Baapu and Sardar Patel. After the visit to the Gandhi Ashram, it was the time to take these young scientists to the Statue of Unity! The young scholars were fascinated to see the Statue of Unity, world's tallest statue, with a height of 182 metres! There they learnt about Sardar's unforgettable contribution to the Indian Independence Movement and the unification of India. They got an opportunity to visit Ekta



Nagar which encompasses Arogya Van, Butterfly Garden, Cactus Garden, Unity Glow Garden etc. to understand the ecology of the surroundings.

An Inspiring Story from the life of Sardar Patel

Vallabhbhai Jhaverbhai Patel (31 October 1875 – 15 December 1950), commonly known as Sardar Patel, a was an Indian lawyer, influential political leader, barrister and statesman who served as the first Deputy Prime Minister and Home Minister of India from 1947 to 1950.

During his childhood, many incidents made him earn the reputation of the Iron man. Once he had a boil on his armpit and in those days, there was a man in his village who used to cure that. To cure the boil, the man used to heat an iron rod and put it on the boil area of the body. Vallabhbhai Patel too went to the man to cure his boil.

Putting the iron rod was painful and so the man did the process slowly as Sardar was a kid. But the young Patel asked the man to do it fast as the rod will become cold. Then he did not wait for the man to do that lashing and took the rod and did it himself. That was when young Patel stunned everyone in the village.



AN EXPLORATION AT STATUE OF UNITY





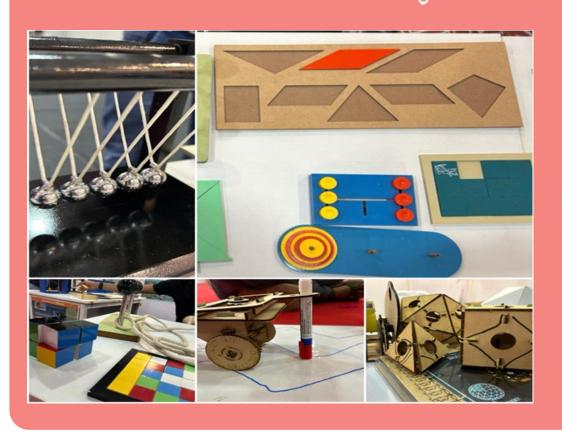


Amazing facts about The Statue of Unity:

- •Statue of Unity will turn from its original bronze colour to green in 100 years due to a natural aging process.
- •This statue is so well-designed that it can resist massive earthquakes and wind speeds of up to 100 km/second.
- •Four high-speed lifts are fitted in the statue's legs. Each lift can carry 26 people to the top in just above 30 seconds.



Activity Corner at NCSC



"Everything around you is mathematics. Everything around you is number. Without mathematics, there is nothing you can do - Shakuntala Devi. The amusing puzzles and mind triggering math games includes the brahma's tower, parking puzzle, number game and bagpot. The middle figure shows a simple mechanism of sine wave generation and triangular wave generation. The parking puzzle shown in above figure uses two colored objects and we have to transfer it from one side to another one at a time

The activity corner was informative corner where ophthalmology corner showed the equipments for eye screening and it can be used for regular eye check up.

Philately is the hobby of collecting stamps. The postal stamps corner shows the stamps used in early 1970's and 2000. It included the stamps which shows the figure of Mahabharata, Dr. Ambedkar ,Indian flag ,Mahatma Gandhi and recent stamp statue of unity.



"With technology we can achieve the unimaginable"



"Make your own drone" activity held at SAL EDUCATION CAMPUS as well as at SCIENCE CITY gives self fulfilment and a kick start to learn technology. Drones are useful for search and rescue, surveillance, traffic monitoring, weather monitoring, fire fighting, personal use, drone based photography and videography. The functionality of this drone was smooth and effortless to use as it easily gets connected to smartphones. Seeing it whizzing through the air following the controller's commands make the young kids feel astounding and tempted to fly the drone. This innovation inspires youth to self-build their own projects by experimenting and helping to uplift their creative skills.

2

EXPERTS VIEWS







Bhim Prasad Sharma

(From Assam).

"I would like to share my views on the importance of NCSC. This NCSC has been instrumental in shaping the students to develop a rational or scientific mind. It also helps them to develop important skills such as problem-solving, teamwork, and communication. Additionally, it allows them to develop their talents and passions and get recognition for their hard work. So that way, NCSC is quite important. And we have been involved in this process for more than 20 years."

Dr Ashiq Hussain

(Jammu and Kashmir).

"I started my journey at NCSE in 2008. However, I have been evaluating at the national level since 2012 continuously. This joyful event was well arranged, and almost everything was going smoothly. Children from different states have nicely presented their ideas, and we have learnt many new things from them."

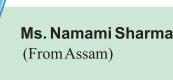






Ms Dulcie Mark (From Meghalaya).

"This was my first time, and it was a nice experience. NCSC is the platform from which students can learn lots of things. They can develop their critical thinking and intrapersonal skills and can build confidence. Overall, the event was nicely arranged, and I enjoyed it a lot."



"The event was absolutely fine. We saw great enthusiasm in the students who were present there. We have judged 7 students from 7 states and heard new and creative ideas from them. I am very thankful to the NCSC for giving me this opportunity to work at the national level."







Dr. Balwinder Singh Sooch

National Children Science Congress is very appropriate platform and a launch pad for budding child scientists to develop the scientific attitude through project based learning. This programme enhances the scientific temperament, develops scientific attitude and improves the understanding of children about scientific methodology by working for finding solutions of local problems. NCSC also gives an opportunity to guide teachers to supervise scientific research work on real life problems for the benefit of society while working at school level.



30th NCSC Attractions of Scientific Exhibition

There are some attractions at 30th Scientific Exhibition those are the talk amongst the visitors. These projects are not only the best of their kind, but are also inspirational, innovative and worth highlighting:

1. Smart Mirror, Best High School. Maninagar, Ahmedabad

This is an innovative project by ATAL Tinkering Lab of Best High School, MAninagar Ahmedabad. Mr. Rikin Parekh and Mr. Vrushil Khatri are leading this project. The 'Smart Mirror' as it has been nomenclature displays all the information for your daily routine. It displays information like weather forecast, events of calendar, and headlines of New York Times changing frequently. It keeps you updated every time. It also displays basic information like time and some good complements for a nice start of a day. Events displayed on the smart mirror are synchronized with the google calendar. It can also be controlled by smart assistance like Google Assistant and Alexa.





2. ATV Car, SAL Education

ATV manufactured in the year of 2017. Their team name is Veriton Racing and consist of 25 members in the team. This team represented SAL Campus at International and National level competition. ATV name is McQueen. They have also manufactured a number of ATV's: McQueen, McQueen 2.0, McQueen 3.0 and now they are working on McQueen 4.0.

Their achievements in various events are:

- •GTU ATV CHAMPIONSHIP EVENT-1st in Gujarat 2017
- •ATV CHAMPIONSHIP EVENT- 5th rank in India 2018
- •MEGAATV CHAMPIONSHIP EVENT-1st in Gujarat 2018 and 3rd rank in India 2018.

3. Know Your Prakruti, Kadi Sarva Vishwavidyalaya

Ecosystem could be understood as the interaction of plants and other living creatures in a particular area with their physical environment. Just how important it is to understand the ecosystem for health and well-being, it is also prominent to understand the ecosystem of human body i.e. the interaction of the physical environment or the PanchaBhuta – the five elements of our body (ether, air, water, fire and earth) and its interaction with the food we eat to foster health and well-being. These child scientists from KadiSarvaVishwavidyalaya took back to the science that has stood the test of time – *Ayurveda*.

Ayurveda has always focused on creating harmony with nature and our thoughts and an imbalance in any of these can throw the human body system off track and be prone to physical and mental diseases. Since Ayurveda focuses on the root cause of problem and solving it, these young minds brought us back to the concept of the primary elements of our body and its imbalance that is often the culprit behind most physical diseases. They taught the concept of *Tridosha*namely *Vatta*(air and space), *Pitta*(fire and water) and *Kapha*(earth and water). These scientists helped the visitors identify which *dosha*their body comprised of with the help of a multiple choice based quiz based on the formation of body such as built of the body, eyes, skin, nose etc. Further, when the dosha was identified, they explained them to understand their *dosha* and how the imbalance of the same can create various diseases in the body. Adhering to their motto to foster health, these innovative minds also came up with the solution to balance out their dosha and suggested how the food we eat can create a balance or imbalance in our doshas aiding them to understand the kind of food each one of them should consume for lifelong health and well-being. These children got us back on



track with the ancient science where the focus was on the harmony of sustainable development and wellbeing. Eyes for Healthy Vision, team from Sambalpur, Odisha





Children are our future who look at the future through their eyes. For us as educators, parents we have to ensure that eyes of the child are healthy. Normally like other tests parents take the child for routine eye test unless until it becomes severe but to ensure health and well-being of the child it is necessary for a regular eye checkup. A team of Trilocham Netralaya, a unit of Vision India Foundation working at the remote and tribal district, Sambalpur in Odisha are here at NCSC ground to provide a detailed eye test and checkup for the child scientist who are the next generation







International Year of Millets (IY0M)-2023

In April 2018, millets were rebranded as "Nutri Cereals" and the same year, the government declared it the National Year of Millets with the objective of generating more production and demand. On December 6, 2022, on the initiative of Prime Minister Shri Narendra Modi, the United Nations has declared the year 2023 as the International Year of Millet (IYOM). The Food and Agriculture Organization (FAO) organised the opening ceremony for the IYM 2023 in Rome, which was addressed by Agriculture Minister Narendra Singh Tomar. A delegation of senior government officials from India also participated. The Department of Agriculture and Farmers Welfare last month hosted a special 'Millet Luncheon' for the Members of the Parliament, which was attended by Vice-President Jagdeep Dhankar and the Prime Minister. Millets have been made an integral part of the G-20 meetings and delegates will be given a true millet experience through tasting, meeting farmers and interactive sessions with start-ups and FPOs.

The Ministry of Sports and Youth Affairs has planned 15 activities in January engaging sportspersons, nutritionists and



fitness experts through video messages, conducting webinars on millets with leading nutritionists, dieticians and elite athletes. The Ministry of Food Processing Industries will be organising Millet Fair-cum-exhibitions in Andhra Pradesh, Bihar and Madhya Pradesh. FSSAI will organise Eat Right Melas in Punjab, Kerala and Tamil Nadu.

India is honoured to be at the forefront of

popularising Millets.

Millet consumption

nutrition, food security

& welfare of farmers.

further enhances

Chhattisgarh, Mizoram, Rajasthan, Maharashtra, Uttarakhand and Punjab are scheduled to carry out specific activities for sensitisation and promotion of IYM besides conducting milletcentric activities including mahotsavs/melas and food festivals, training of farmers, awareness campaigns, workshops/ seminars, placement of hoardings and distribution of promotional material in January.

The Agricultural and Processed Food Products Export Development Authority (APEDA) will be participating in a trade show in Belgium where it will showcase the diversity of Indian millets. Indian embassies across more than 140 countries will be participating in celebration of IYM during 2023 by conducting side events involving the Indian diaspora through exhibition, seminars, talks, and panel discussions.

List of Types of Millets

There are several millets types that you can find. Some of these are mentioned herein below:

- 1. Sorghum Millet (Jowar)
- 2. Proso Millet (Chena/Barri)
- 3. Pearl Millet (Bajra)
- 4. Foxtail Millet (Kakum / Kangni)
- 5. Finger Millet (Ragi)
- 6. Browntop Millet (Korle)
- 7. Barnyard Millet (Sanwa)
- 8. Little Millet (Moraiyo)
- 9. Buckwheat Millet (Kuttu)
- 10. Amaranth Millet (Rajgira)
- 11. Kodo Millet





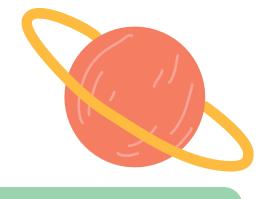
Azadi sa Ameri Mahotsav MILLETS

Meet the Youngest Child Scientist of the 30th NCSCMeet Tora Das, a little girl of 10 from Birbhum, West Bengal. She is a young bubbly child scientist working on Evaluation of Pond Health Condition.

GUJCOST wishes Tora a very good luck for her scientific career ahead!!

THE ACTIVITY PAGE

Solve a real problem and the world is yours. Coming together with Young and Bright Child Scientists.





Fun with science, Ability to be a Child-Scientist with Technologies.

FACT ABOUT FINGERPRINTS

Your fingerprints are unique. No two are the same, not even on the same person or on identical twins. The ridges begin to develop during the third month of fetal development, and they are fully formed by the sixth

Solution will be provided in the

next newsletter.

Fingerprints are those little ridges on the tips of your fingers. They're essentially folds of the outer layer of skin, the epidermis. The "prints" themselves are the patterns of skin oils or dirt these ridges leave behind on a surface you've touched. Your fingerprints began to form before you were born.

Now, thankfully, fingerprints are done digitally. God made/created us, and each of us have different fingerprints; but we all have 66 lines on our thumbprint.

Fingerprint evidence can play a crucial role in criminal investigations as it can confirm or disprove a person's identity by uniqueness of fingerprints.

Know the Ecosystem and find the way for

healthier ecosystem.

1. Common detritivores in our ecosystem are

Answer: Earthworms.

2. A major reservoir of carbon on Earth is

Answer: Oceans.

3. In aquatic ecosystems, the limiting factor for productivity is ___

Answer: Light.

4. sun- plant-worm -bird or sun-plant-bee is an example of

Answer: Food Chain

5. Plants are called as because they fix carbon dioxide.

Answer: Autotrophs

Dear Humans, You are the weapons of mass

destruction.

sincerely, The World



Save Me, Save Us, Save World

Magical Math

NUMBER TRACKING PUZZLE

Example:

Let's start.

7 8 15 23 38

13