



Annual Report

2023-2024



National Museum Of Science and Technology
Ministry of Science and Technology





Annual Report

Fiscal Year : 2023-2024



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Message's from DG

The world today is enriched by the tremendous advances in science and technology through multifaceted trajectories. In this ever-evolving stream of innovation, the entire world has converge on a confluence. Harnessing the momentum of technological advancement and expanding the horizons of creative thinking, the people have brought about extraordinary progress in the march of their civilization. The human life has become significantly easier through the transformative power of technology. The National Museum of Science and Technology is persistently working to bridge between the revolutionary scientific discoveries and inventions, within the students, the young scientists and the museum visitors. Over the long journey, the museum has extended across the country. Side by side its permanent exhibitions and the regularly organize Mobile Science Exhibitions across the country to popularize science among students and foster the consciousness of scientific alertness. Additionally, the museum provides financial assistance to science clubs and organizations for their research and innovation-oriented projects. The museum has been excelling its work to cultivate a scientific mindset among the public through a variety of initiatives including the formation of science clubs throughout the nation and the celebration of Science Week. Each year, the museum arranges Science Fairs, Science Olympiads and Quiz Competitions on scientific affairs, along with discussion meetings and seminars involving students and teachers of educational institutions. The Science and Technology Museum is currently bringing its services to the doorsteps to the public through the use of modern technology and digital platforms. Online ticketing has been introduced for visitors to see the museum exhibitions, and a virtual museum has been launched for the general visitors.

All the activities of this organization are reflected in the annual report 2023–2024. I would like to extend my sincere thanks to all those who contributed to this publication.

Munira Sultana, ndc
Director General

National Museum of Science and Technology



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1.0 Introduction to National Museum of Science and Technology (NMST)

The National Museum of Science and Technology was established on April 26, 1965, by an executive order of the then-government. The museum subsequently began its operations under the Ministry of Education. To keep pace with the progress of science and technology and meet the demands of the time, the museum has undergone multifaceted changes and developments. These have included modern exhibits to continually enhance the galleries and expanding institutional activities to reflect the needs of a changing world. The Museum has been accorded the status of a national institution in 1972. Since 1987, it has been operating from its own premises on approximate 5 acres of land. The institution is governed by a Board of Directors led by the Secretary of the Ministry of Science and Technology. According to the National Museum of Science and Technology Act, 2010, it operates as a statutory body under the Ministry of Science and Technology.

The National Museum of Science and Technology (NMST) is firmly committed to bridging the groundbreaking discoveries and innovations of science among students, young scientists, and the people. With a view to making science education more comprehensible, the innovative initiatives of the Science Museum include the nationwide mobile science exhibitions. To unveil the vast and mysterious horizon of space exploration, space observation camps are organized in remote areas of the country. In addition, the NMST has been fostering the progress of science by organizing a wide range of engaging events under the annual Science and Technology Week; science fairs, science Olympiads, quiz competitions, meetings and seminars with the joint participation of the teachers and students. These events have ignited curiosity in the thinking process of the students, and have significantly inspired them to innovate in modern technologies.



Photo: National Museum of Science and Technology



1.1. Vision

The vision of this institution is to create a science - minded nation.

1.2. Mission

The mission of this institution is to popularize science and technology through science-related exhibitions to encourage and support the young generation in innovative work.

1.3. Institutional Structure

The National Museum of Science and Technology has a total of 182 approved posts, including that of the Director General, with 138 officers and employees currently serving. Among them, 65 hold revenue positions, and 73 are in outsourced employees. Deputy Director, Director and Director General posts are fulfilled by deputation.

1.4. Regulations

The National Museum of Science and Technology operates under a separate regulation titled The National Museum of Science and Technology (Officers and Employees) Service Regulations, 2011. The Director General holds the highest level of financial and administrative authority within the institution.

1.5. Board of Directors

In accordance with the provisions of Section 5 of the National Museum of Science and Technology Museum Act, 2010, a Board of Directors was formed comprising of 13 members, with the Secretary of the Ministry of Science and Technology serving as the Chairperson, and the Director General of the National Museum of Science and Technology as the Member Secretary. The members of the Board of Directors reconstituted in 2023:

SI No.	Name, Designation and Address	Board Designation
1	Md. Ali Hossain Secretary, Ministry of Science and Technology	Chairman
2	Md. Nizam Uddin Additional Secretary, Ministry of Science and Technology	Member
3	Md. Rashidul Islam Chairman, Bangladesh Space Research and Remote Sensing Organization	Member
4	Dr. Md. Showkat Akbor Chairman, Bangladesh Atomic Energy Commission	Member
5	Md. Nazmul Huda Siddiqui ndc Additional Secretary, Branch-1, Finance Division	Member
6	Professor Dr. Chandranath Poddar Department of Mathematics, University of Dhaka	Member
7	Professor Dr. Khandaker Sabbir Ahmed Department of Architecture, Bangladesh University of Science and Technology	Member
8	Professor Dr. Md. Aftab Ali Sheikh Chairman, Bangladesh Council of Scientific and Industrial Research	Member
9	Professor Tofayel Ahmed Department of Agroforestry and Environment, Gazipur Agricultural University, Salna, Gazipur	Member
10	Professor Dr. Md. Khaled Hossain Department of Biochemistry and Molecular Biology, University of Rajshahi	Member
11	Professor Dr. A A Mamun Department of Physics, Jahangirnagar University, Savar, Dhaka	Member
12	Md. Shafiul Arif Joint Secretary, Ministry of Public Administration	Member
13	Muhammad Munir Chowdhury Director General, National Museum of Science and Technology, Dhaka.	Member Secretary

2.0 Basic Functions of the National Museum of Science and Technology

The activities of the National Museum of Science and Technology can be broadly categorized into seven areas:

- 2.1. Gallery Exhibitions
- 2.2. Educational Program
- 2.3. Publication Activities



- 2.4. Mobile Science Museum, Observatory, and 4D Movie Exhibitions
- 2.5. Science Club-based Activities
- 2.6. Trustee Board Grant Activities
- 2.7. National Science & Technology Week Activities

2.1. Gallery Exhibitions

The galleries include the Physical Science Gallery, Fun Science Gallery, Biological Science Gallery, Information Technology Gallery, Industrial Technology Gallery, Children's Science Gallery, Space Gallery, Aviation Gallery, Biodiversity Gallery, and the Virtual Reality (VR) and Innovation Gallery. Sky observation sessions are held on Friday and Saturday evenings Subject to clear skies. Visitors can observe celestial objects such as the Moon, Venus, Mars, Saturn, Jupiter, the Andromeda Galaxy, Ring Nebula, Seven Stars, Double Stars, and Star Clusters using a powerful telescope.

2.1.1. Outdoor Exhibition

The outdoor exhibits include Various types of aircraft, Solar Garden, the Titanic ship, Prashanto Sarabor (Pacific Lake), Wind Turbine, Dinosaur Sculpture, Sundial, and more.

2.2. Educational Program

The National Museum of Science and Technology functions as an institution for informal science education. It is regularly organized various popular lectures on science and technology, which are attended by a wide range of science enthusiasts, including students from schools, colleges, and universities, science club members, renowned scientists, technologists, and other distinguished guests. Eminent scientists, technologists, and science educators from across the country serve as expert speakers, delivering important lectures on specific topics. The Science Museum also conducts science exhibitions throughout the country using mobile museum buses. Additionally, to foster scientific curiosity among students, activities such as science quizzes, Olympiads, and Science Fairs are organized.

2.3. Publications

The Museum publishes a range of materials, including the magazine Nabin Bigyani (Young Scientist), the quarterly magazine The Darpan (The Mirror), collections of popular science lectures, reports on the National Science and Technology Week, annual reports, and research-based publications.

2.4. Mobile Science Museum and 4D (Four-Dimensional) Movie Exhibition

The Museum operates five mobile science museum buses, each equipped with 24 exhibits to provide science education services throughout the country. For entertainment, there are three 4D movie buses, each accommodating 15 viewers at a time for immersive 4D movie experiences. Additionally, the Museum has two observatory buses dedicated to space observation. These buses are equipped with telescopes that enable the public to observe celestial objects such as the Moon, planets, stars, and galaxies in the night.

2.5. Science Club-based Activities

Under the supervision of the National Museum of Science and Technology, a science and technology club has been established in every Upazila of the country. Additionally, there are 270 registered science clubs operating nationwide. These clubs carry out various science-related activities throughout the year with support from the museum. Key activities include science Olympiads, science-focused meetings and seminars, popular science lectures, festivals, workshops, quizzes, and various competitions. A significant number of the youth actively participates in these initiatives.

2.6. Trustee Board Grants

To promote the practice of science, the National Museum of Science and Technology provides financial grants through the 'Science and Technology Development Trust' to educational institutions, science clubs, and science-oriented organizations across the country. These grants are aimed at enriching science laboratories of schools, conducting science-related programs, and publishing science magazines. This initiative benefits educational institutions and science clubs, particularly in remote areas, and helps to increase science awareness and enthusiasm among the broader population.

2.7. Celebration of National Science and Technology Week

National Science and Technology Week is a national festival of the Science Museum and is held at all upazilas, districts and central levels of the country through various activities and competitions related to science, engineering and technology. The main objective is to increase interest in science and technology among all kind of people and to develop a culture of innovation. National Science and Technology Week is usually celebrated through science fairs, science Olympiads, science quiz competitions, seminars and other science oriented programs.

3.0 Introduction to the Galleries of NMST

To expand informal science education and promote scientific awareness all, the National Museum of Science and Technology—along with its mobile science exhibition buses—features a total of 519 historical, ancient, and modern science-related exhibits. Mobile science exhibitions are organized for students in various districts, Upazilas, and remote areas of the country through five separate museum buses. Each bus contains 24 scientific exhibits. In addition, all the galleries of the science museum house rare, discovery-based collections. These exhibits are regularly demonstrated in 10 thematic galleries. These are 1. Physical Science Gallery; 2. Industrial Technology Gallery; 3. Information Technology Gallery; 4. Biological Science Gallery; 5. Fun Science Gallery; 6. Space Science Gallery; 7. Children's Gallery; 8. Innovation Gallery; 9. Aviation Gallery; 10. Biodiversity Gallery. In addition to conventional ticketing, e-tickets are also available for visitors.

3.1. Brief Description of Galleries

3.1.1. Physical Science Gallery

Physical Science Gallery which is considered a center for acquiring practical knowledge about physics. Through this gallery, it has been possible to introduce the



students and general visitors about physics. This gallery has a rich collection consisting of various exhibits (instruments and materials) based on physics. Here, exhibition activities are ongoing through a total of 40 exhibits including Newton's first, second and third laws, transfer of momentum, Torricelli's experiment, electromagnetism, Pythagoras' theorem, Boyle's law, and pressure law. There are various charts and documentaries also displayed here related to physics.

The list of exhibits:

1. Newton's First Law of Motion	2. Conservation of Momentum
3. Fletcher's Trolley (Newton's Second Law of Motion)	4. Newton's Third Law of Motion
5. Centrifugal Force	6. Boyle's Law
7. Law of Pressure	8. Equilibrium
9. Periscope	10. Water Boiling at Room Temperature
11. Sound in a Vacuum	12. Dine with oneself
13. Apparent Anti-Gravity	14. Pythagorean Theorem
15. Generating Electricity with a Wheel	16. Conversion of Circular Motion to Wave Motion
17. Touch the Fruit	18. Electrostatic Magnet
19. Electromagnet	20. Tesla Coil
21. Electricity Generation and Distribution	22. Electric Bell
23. Anamorphosis	24. Thermometer Set
25. Torricelli's Experiment	26. Newton's Color Wheel
27. Cinemascope	28. Mass Puzzle
29. Hyperbolic Rupture or Hyperbolic Disruption	30. Brachistochrone Curve (The curve of shortest time)
31. Which one rolls down first?	32. Mirror Play-1 or Game of Mirrors-1
33. Peeking into Infinity	34. Mirror Play-2 or Game of Mirrors-2
35. Qudrat-i-Khuda Corner	36. Bose Corner (Likely a section dedicated to Sir Jagadish Chandra Bose).
37. Wave Pendulum	38. Sympathetic Oscillation
39. Interference and Diffraction	40. Obedient Small Sphere

Some photographs of this gallery

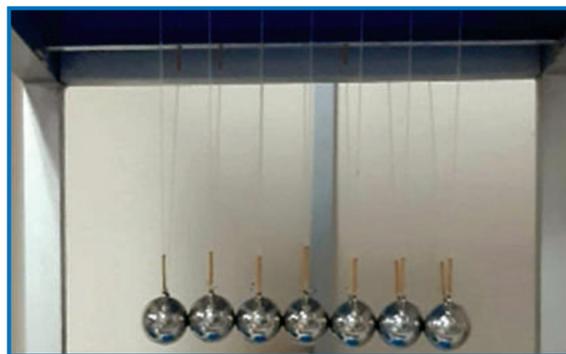


Photo: Transfer of momentum



Photo: Wave pendulum

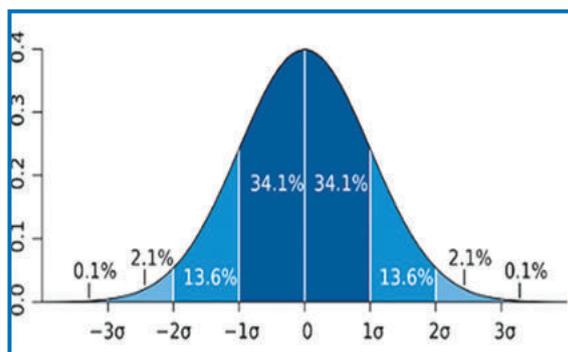


Photo: Probability curve



Photo: Foucault pendulum



Photo: Electromagnet

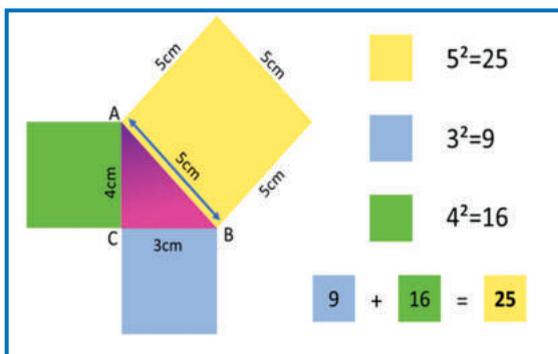


Photo: Pythagoras theorem

Working Employees and Officials of Physical Science Gallery

SI No.	Name and Designation	Photo
1.	Md. Moshir Rahman Gallery Assistant National Museum of Science and Technology	
2.	Md. Rasel-Al-Mamun Gallery Assistant National Museum of Science and Technology	

3.1.2. Industrial Technology Gallery

The Industrial Technology Gallery is a part of the National Museum of Science and Technology. It includes various exhibits related to both ancient and modern art and technology. There are about 68 exhibits in this gallery, which exposes the visitors to various aspects of science and technology. The main attractions of the Industrial Technology Gallery are both ancient and modern art and technology, various types of machinery that demonstrate the progress of art and the evolution of technology. It is an interesting place for students and general visitors, where they can learn about various technologies hands-on.



The list of exhibits:

1. Hardinge Bridge Model	2. Very old printing machine
3. Gramophone	4. Telephone exchange
5. Old aircraft engine	6. Mechanical advantage of a lever
7. Wind power	8. VCR
9. Indigenous Smoking device	10. Wood preservation method
11. Lino-compose machine	12. Jet engine model (turboprop)
13. Petrol engine model	14. Diesel engine model
15. Steam engine (boiler)	16. Fire extinguisher
17. Barograph	18. Gyrocompass
19. Derka display	20. Small submarine
21. First and third BTV cameras	22. Electron microscope
23. Old radio receiver set	24. Suspension bridge
25. Chittagong Steel Mills model	26. Life raft
27. Lifeboat	28. Paper mill model
29. Fathometer (for measuring sea depth)	30. Wireless
31. Radar display and antenna	32. Printing machine
33. Distiller	34. Wankel engine
35. Space Research and Remote Sensing Organization	36. Chittagong TSP Factory model
37. Chittagong Urea Fertilizer Factory model	38. Lifeboat radio
39. Weather facsimile	40. Pulley
41. Auto petrol submarine	42. Electricity generation with solar power
43. Wheel and axle	44. Kaptai Hydroelectric Power plant model
45. Telelens	46. Engine air-tourer
47. Video camera	48. DVD
49. Spot light camera	50. Windmill
51. Magnetic levitation train	52. Metro rail station model
53. Map of industrial factories in Bangladesh	54. Ammonia blueprint machine
55. Rotary printing and dyeing machine	56. Photostat machine
57. Balance testing	58. Gramophone-cum-radio
59. Parts of old cameras	60. Four-track stereophonic
61. Projection lamp	62. Spool recorder
63. Video camera chain	64. Vessel Syed Nazrul Islam
65. Ship's compass	66. LORAN-C
67. Deck watch	68. Diving set

Some photographs of this gallery



Photo: Model of Kaptai Hydroelectric Power Plant



Photo: Old Radio Receiver Set



Photo: Jet Engine Model (Turboprop)



Photo: Paper Mill Model



Photo: Electron Microscope



Photo: Gramophone

Working Employees and Officials of Industrial Technology Gallery

Sl No.	Name and Designation	Photo
1.	Md. Abdul Mazed Assistant Curator National Museum of Science and Technology	
2.	Md. Mozammel Hossain Gallery Assistant National Museum of Science and Technology	



3.1.3. Information Technology Gallery

The contribution of information technology to the advancement of science and technology is far-reaching. This Gallery was established in 2001 to provide visitors with an idea of the basic discoveries of information technology. Through this, it has been possible to highlight the evolution of computers and introduce the students to modern information technology. This gallery is basically a collection of various equipment and materials based on modern information technology, starting from the first computer in Bangladesh. Various types of computers including IBM 1620, 1401, 370, 4331, Analog Computer, Honeywell DPS-6, IBM PC are being displayed here. There are various charts and documentaries added here related to information technology.

The list of exhibits:

1. Analog Computer	2. First Computer in Bangladesh
3. CPU	4. Mainframe Computer
5. Line Printer	6. IBM 4331 System
7. Card Punch Machine	8. Color Mixing
9. Logic Gate	10. Historical Evolution of Computer
11. Decimal to Binary Digit Conversion	12. IBM 1401
13. Honeywell DPS-6	14. IBM 370
15. Personal Computer (PC)	16. The computer components display box
17. Display Board	

Some photographs of this gallery



Photo: Line Printer

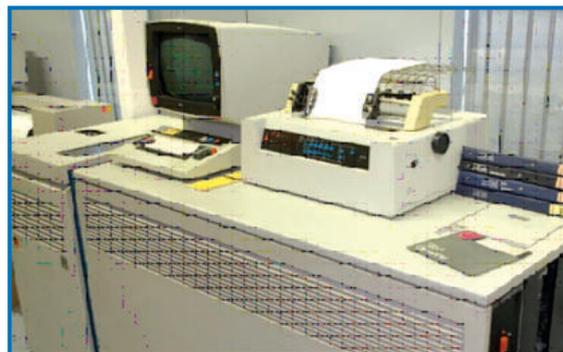


Photo: IBM 4331 System



Photo: IBM 1401



Photo: First Computer of Bangladesh

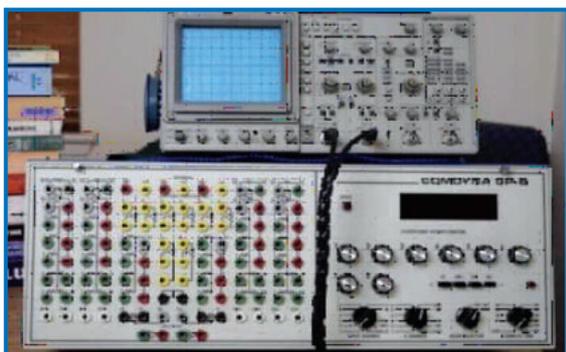


Photo: Analogue computer



Photo: Mainframe computer

Working Employees and Officials of Information Technology Gallery

SI No.	Name and Designation	Photo
1.	S. M. Abu Hannan Assistant Curator National Museum of Science and Technology	
2.	Md. Arafat Ali Gallery Assistant National Museum of Science and Technology	

3.1.4. Space Science Gallery

The Space Science Gallery was inaugurated at the Science Museum in 2010 with the aim of engaging visitors in unveiling the immense mysteries of space and providing an insight into the unknown world of space science. This gallery houses 23 exhibits related to space science. The scientific concepts and procedures behind each exhibit are presented here in simple language. The exhibits include Sound Reflection, Space Sickness, Whirlpool, Lightning, Meteorites, Telescopes, Astronaut Suits, Moon Phases, and Gravity Wells. Some exhibits are interactive or model-based, which encourages visitor's participation. Overall, it is an educational gallery that arouses curiosity about space and natural science.

The list of exhibits:

1. Sound Dises	2. Timeline of Space Exploration
3. Space Agencies	4. Space Sickness)
5. Meteorite	6. Model of Space observation Center
7. Guessing the Gases	8. Plasma Tube
9. Lunar Phases	10. Space Suit
11. Arch Bridge	12. Gravity Well
13. Telescope used in 90th century	14. Refracting and Reflecting Telescope
15. Map of Moon	16. Magic Vision
17. Whirlpool	18. Astro culture
19. Lightning Flashes & Thunder Rumbles	20. Formation of Tornado
21. Earth on the Space	22. Astronaut Cutout
23. 4D Movie	

Some photographs of this gallery



Photo: Lunar phases

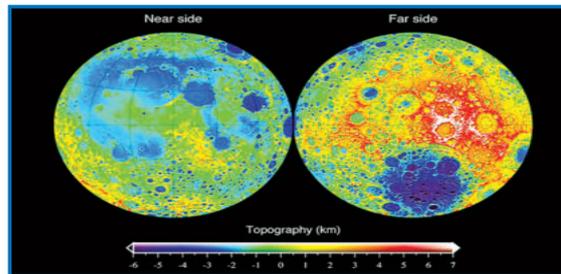


Photo: Map of the moon



Photo: Meteorites



Photo: Gravity Well



Photo: Space sickness



Photo: Gazing the Gases

Working Employees and Officials of Space Science Gallery

SI No.	Name and Designation	Photo
1.	Md. Touhidul Hasan Assistant Curator National Museum of Science and Technology	
2.	Md. Jahidul Islam Gallery Assistant National Museum of Science and Technology	

3.1.5. Biological Science Gallery

The Science Museum has a rich Biological Science Gallery to introduce the vast world of biology. It is well-equipped with various exhibits and educational information on biology, which helps visitors to learn about living organisms and their structure and life cycle. This Gallery of the Science Museum displays models and pictures of living animals, plants and microorganisms of various species. In addition, detailed information on various topics related to biology such as evolution, genetics, ecology and physiology is available here. The gallery is a learning place for students as well as everyone interested in biology.

The list of exhibits:

1. Starfish	2. Fungus	3. Pangolin
4. Butterfly	5. Amoeba's Binary Fission	6. Tapeworm
7. Rock Cycle	8. Lac (a type of resin)	9. Tokay Gecko
10. Homo Sapiens	11. Wood Fossil	12. Australopithecus
13. Homo Erectus / Java Man	14. Biodiversity	15. Dinosaur Tooth Fossil
16. Oriental Region Lizard	17. Granite	18. Falcon / Hawk
19. King Crab	20. Squilla	21. Muntjac Deer Head
22. Nerita albicilla (a type of sea snail)	23. Octopus	24. Chola Punti (a type of fish, Puntius chola)
25. Kakila (a type of fish, Xenentodon cancila)	26. Amphiuma (a genus of aquatic salamanders)	27. Spiny Turbot (a type of flatfish)
28. Prawn / Giant Prawn	29. Scorpion	30. Ascidia (a genus of sea squirts)
31. Smooth-tailed Turkeyfish	32. Diaptomus (a genus of copepods)	33. Garfish
34. Jungla Fish / Jungle Fish (a type of fish)	35. Lionfish	36. Anopheles Mosquito
37. Sillago (a genus of fish)	38. Pampas (referring to a type of fish, possibly the Pompano fish, or the Pampas grasslands)	39. Melanoides Tuberculata (a species of snail)
40. Rat Flea	41. Aedes Mosquito Life Cycle	42. Sea Feather
43. Hydrophis (a genus of sea snakes)	44. Common Seahorse	45. Oyster Pearl
46. Jellyfish	47. Jungle Crow	48. Chameleon
49. Asian Toad's Life Cycle	50. Thresher Shark	51. Jungle Cat
52. Raja (likely referring to the Raja fish or Skates)	53. Apple Snail	54. House Lizard
55. Gharial	56. Bengal Monitor / Monitor Lizard	57. Anjali
58. Crab	59. Synaptura (a genus of flatfish)	60. Turtle / Tortoise
61. Fly	62. Salamander	63. Longitudinal Section of Hydra
64. Structure of a Bacterial Cell	65. Paramecium	66. Frog Dissection
67. Rabbit Dissection	68. Interphase Stage	69. Early Prophase Stage
70. Middle Prophase Stage	71. Late Prophase Stage	72. Prometaphase
73. Metaphase	74. Early Anaphase Stage	75. Anaphase Stage
76. Telophase Stage	77. AIDS	78. Baim Fish (Spiny Eel)
79. Coral	80. Flatfish / Flounder	81. Rita Fish (a type of catfish)
82. Sponge	83. Porcupinefish	

Some photographs of this gallery



Photo: Scorpion



Photo: Nerita albicilla



Photo: Ant Eater



Photo: Octopus



Photo: Skeletal of Fin Whale



Photo: Wood Fossil

Working Employees and Officials of Biological Science Gallery

Sl No.	Name and Designation	Photo
1.	Muminur Rashid Assistant Curator National Museum of Science and Technology	
2.	Shafia Tasnime Draghima Gallery Assistant National Museum of Science and Technology	

3.1.6. Fun Science Gallery

This gallery is enrich in various science puzzles and fun exhibits. The gallery was launched in 2001 with 31 exhibits. Through these exhibits, it has been possible to introduce various topics of science to the students with fun and in a practical way. In this gallery, a floating disk shows how a disk changes position due to the attraction and repulsion of a magnet. An impossible mixture shows how three kinds of liquids are mixed together and separate after some time. A bioscope design shows how an image is animated. How a magnet loses its attraction at a certain temperature is shown through the Curie Point exhibit. Convex mirrors and concave mirrors show how a human image becomes very tall and very thin. A severed head exhibit shows how a head can be displayed in a severed state. This gallery is essentially a museum consisting of various modern science-based equipment and materials.

The list of exhibits:

1. Head on a Platter	2. Liquid Painting	3. Coloured Shadows
4. Nodes and Antinodes	5. The Impossible Mixture	6. Jumping Disk

7. Rising Arc	8. Musical Tubes	9. Stereo Hearing
10. Lines of Force	11. Curie Point	12. Lazy Tube
13. Fun Mirrors	14. Magic Kettle	15. Is Light Visible
16. Standing Wave of Sound	17. Kaleidoscope	18. Anamorphoses
19. Movies	20. Seebeck's siren	21. Chaos
22. Illusion with a ring	23. Iris	24. The grand shuttle
25. Identify a magnet	26. Electric globe	27. Human skeleton on a bicycle
28. Electric rotation	29. Tesla's Egg of Columbus	30. Amazing Trajectory
31. Van de graph Generator		

Some photographs of this gallery

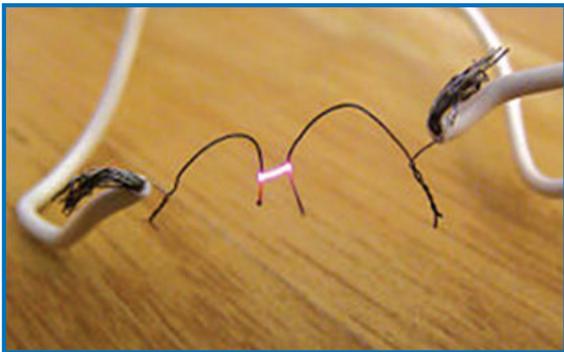


Photo: Rising Arc



Photo: Seebeck's Siren



Photo: Fun Mirrors



Photo: The Grand Shuttle



Photo: Stereo Hearing



Photo: Electric Globe

*Working Employees and Officials of Fun Science Gallery*

SI No.	Name and Designation	Photo
1.	M.M. Rubaet Hossen Gallery Assistant National Museum of Science and Technology	
2.	Md. Gousul Azom Gallery Assistant National Museum of Science and Technology	

3.1.7. Children Gallery

The Museum has a separate gallery named ‘Children's Gallery’ as part of entertainment for children. A variety of exhibits are available in the gallery. Which children and visitors of all levels are given a thorough understanding of the basics of science with entertainment. The exhibits of this gallery include Floating Ball, Magic Camera, Jumping Spring, Fire Flame, Periscope, Pipe Phone, Dancing Clip and Laser Beam etc. Apart from this, all the other exhibits are very attractive to the visitors.

The list of exhibits:

1. Magic Camera	2. Floating Ball
3. Sympathetic Swing	4. Jamping Spring
5. Lissajous Sand Pendulum	6. Pipe Phone
7. Moire Pattern	8. Fire Flame
9. Grand Father Clock	10. Jumping Spring
11. Flying Man	12. Optical Illusion
13. Magic Loop	14. Spider Head
15. Periscope	16. Jagadish Chandra Bose

Some photographs of this gallery

Photo: Pipe Phone

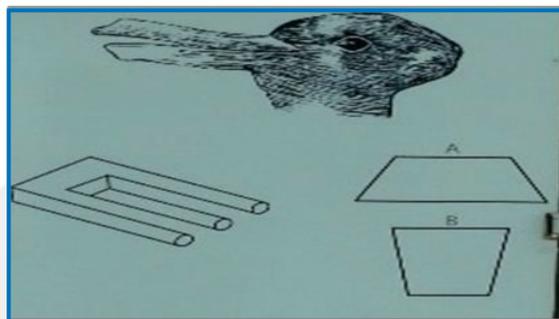


Photo: Periscope



Photo: Spider Head



Photo: Lissajous Sand Pendulum



Photo: Jamping Spring

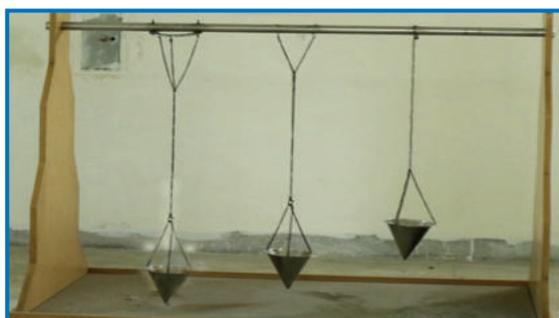


Photo: Optical Illusion

Working Employees and Officials of Children Gallery

SI No.	Name and Designation	Photo
1.	Md. Azizul Islam Assistant Curator National Museum of Science and Technology	
2.	Jagannath Pal Gallery Assistant National Museum of Science and Technology	

3.2. Recently Added Exhibit

There are some exhibits have been included in NMST Galleries this financial year:

3.2.1. Periodic Table

The Periodic Table, also known as the Periodic Table of Elements, is a crucial tool in chemistry. In this table, chemical elements are systematically arranged in rows ('periods') and columns ('groups'). It is widely used in scientific disciplines, particularly in chemistry and physics. The Periodic Table is a visual representation of the Periodic Law; which states that when elements are arranged according to their atomic number, their properties show a periodic repetition. The table is divided into four rectangular regions called blocks. The elements within the same group share similar chemical properties. The table was first developed in 1869 by Russian



chemist Dmitri Mendeleev, who arranged the elements based on their atomic masses and chemical properties. This tool allows students to better grasp complex topics in chemistry through structured visualization.

পর্যায় সারণি

Legend:

- Alkali Metal
- Alkaline Earth
- Transition Metal
- Basic Metal
- Semimetal
- Nonmetal
- Halogen
- Noble Gas
- Lanthanide
- Actinide

Callout for Cerium (Ce):

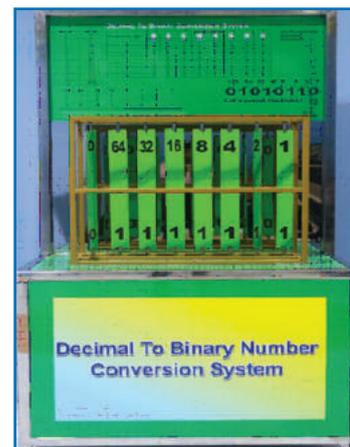
- Atomic Number: 58
- Symbol: Ce
- Atomic Mass: 140.116
- Name: Cerium

PERIODIC TABLE

Photo: Periodic Table Installed in the Physical Science Gallery

3.2.2. Decimal to Binary Number Conversion System

To convert a decimal number to binary, the number must be repeatedly divided by 2 until the quotient becomes zero. The binary number is then obtained by arranging the remainders in reverse order. Through this exhibit, visitors can easily learn the method of converting decimal numbers to binary.



3.2.3. Different types of Boat Models of Bangladesh

A boat is a type of watercraft. While boats are used for sports (such as boat racing) and leisure in many countries around the world, in countries like Bangladesh, boats remain one of the prime means of local transportation. It also play a vital role in transporting goods.



Photo: Newly added Boat Models Corner



Photo: The First Computer Introduced in Bangladesh

3.2.4. The first computer of Bangladesh presented in a new form

IBM 1620 is a second-generation digital mainframe computer. In the last quarter of 1964, under the Colombo Plan, the first digital computer in this region—specifically in Dhaka, at the Atomic Energy Centre—was installed. At that time in this regiona



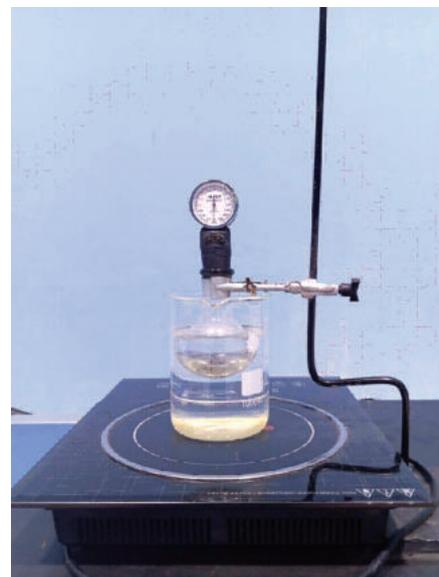
the universities, key government, semi-government, research and development institutions were provided with computational facilities through this computer. It used ferrite core memory, where the basic unit was the decimal digit (0–9). Its total memory capacity was 60,000 decimal digits. To store each decimal digit, 6 bits binary digits. It includes 4 bits for storing the digit (0–9), 1 parity bit (for internal error checking) and 1 flag bit (used to determine magnitude).

3.2.5. Pressure Law

Pressure Law is an experimental gas law that explains how gas pressures with increasing temperature. A modern statement of Pressure Law is: At constant volume, the pressure of a fixed mass of gas is directly proportional to its absolute temperature. This means that as the temperature increases, the pressure of the gas increases proportionally.

Pressure law states: At constant volume, if the temperature of a fixed mass of gas is increased or decreased by 1° Celsius, its pressure will increase or decrease by 1/273 of its volume at 0° Celsius, respectively.

At constant volume and for a fixed amount of gas, the pressure at 0°C is P, and the Pressure becomes P' when the temperature is increased by t°C. Then, according to Pressure Law: $P' = P(1 + t/273)$



4.0 NMST Activities in Fiscal Year 2023-2024

4.1. Mobile Exhibition Activities

4.1.1. Displaying Mobile Science Exhibits

The Mobile Science Exhibition is a unique initiative by the National Museum of Science and Technology aimed at promoting science education across the country. This program spreads the message of science to all corners of Bangladesh round the year. According to the Annual Performance Agreement (APA), the target for the number of mobile science exhibitions for the fiscal year 2023–2024 was 250. The Science Museum exceeded this target by successfully organizing 253 mobile science exhibitions across the country. In addition, free science exhibitions are held throughout the year in districts, Upazilas, and educational institutions outside the capital, using vehicles equipped with modern technology. The program features four museum buses equipped with modern scientific apparatus, three 4D movie buses, and two observatory buses. In addition, telescope exhibitions are regularly held under this initiative. More than 100,000 students from across the country participate

in these exhibitions each year. The program has gained success in all over the country. Alongside traditional textbook learning, the Science Museum is dedicated to bring science into life in a fun and engaging way—cultivating a strong interest in science among students. As this initiative grows, many educational institutions across Bangladesh are actively participating in the museum's mobile outreach programs. Looking ahead, the museum plans to further expand these activities to enhance the popularity and accessibility of science education nationwide.

4.1.2. Organizing of Space Observation Camps

Through space observation, students are introduced to the fascinating and often unknown aspects of space science, including planets, stars, and other celestial bodies. The primary goal of this program is to eliminate mental inertia among students, encourage creativity, and enhance technological excellence by promoting productive use of their time. During the reported fiscal year, the National Museum of Science and Technology successfully conducted 175 telescope display events in various locations across the country.

4.1.3. Space Observation Camp in Barguna District

The Space Observation Camp in Barguna was held on October 21 and 22, 2023, organized by the Barguna Science Society (BSS) with the support of the National Museum of Science and Technology and the District Administration. A 10-member team from the National Museum of Science and Technology conducted a Mobile Science Exhibition at the premises of Barguna Municipal Mosque as part of the large-scale '3rd Space Camp.' Following the Mobile Exhibition, arrangements were made for public observation of planets and stars using the Museum's powerful telescopes. Two telescopes were set up on the rooftop of the 10-storied Al-Mizan Shopping Complex in the city to facilitate this experience. The event was inaugurated with much enthusiasm by Mr. Md. Rafiqul Islam, Deputy Commissioner of Barguna. The two-day camp was attended by officials from the district administration, young scientists, journalists, and approximately 1,500 teachers and students from nearby schools and colleges. In addition to telescope observations, the program featured robot exhibitions and a Space Olympiad for students. The Barguna Science Society and the Barguna District Administration extended their gratitude to the National Museum of Science and Technology for making this event successful.

4.1.4. Space Observation Camp in Thakurgaon District

A space observation camp was held in Thakurgaon District on April 18 and 19, 2024, with the aim of providing students and the general public with a deeper understanding of the mysterious world of space and offering them an opportunity to observe distant planets and stars up close. Officials of the Thakurgaon Sadar Upazila administration, young scientists, researchers, and nearly a thousand teachers and students from nearby schools and colleges participated in the two-day space observation camp organized by the Science Museum. It took place on the evening of April 18, 2024, at the premises of the 'Ekta Protibondhi Labli Science and Technology Foundation



Library’ in Thakurgaon Sadar Upazila. Powerful telescopes from the science museum were set up, allowing participants to observe various celestial bodies. More than 500 disable students, along with members of the general public from surrounding areas, took part in the event. The second session was held on April 19, 2024, at the Upazila Parishad premises of Thakurgaon district. On this day, students from various educational institutions observed Jupiter, the moon, and stars such as Proxima Centauri through the telescopes. This two-day event successfully created a platform for astronomical learning and inspired curiosity about space among students and the mass public alike. Through space observation, the unknown aspects of space science—such as planets and stars—are revealed to students. The aim of this program is to eliminate mental inertia, foster creativity, and enhance technological excellence by encouraging productive use of time.

4.2. Educational Activities

Fostering a science-minded nation this national institution is committed to develop the environment of Science and Technology. Alongside cultivating a supportive space for science learning, the Museum regularly introduces state-of-the-art scientific exhibits designed to spark curiosity and enthusiasm for science education, which includes a new and dynamic dimension.

4.2.1. Visit Program of Senior Staff Course Trainees of BPATC

The trainee officers of the 108th Senior Staff Course from the Bangladesh Public Administration Training Center (BPATC) visited the National Museum of Science and Technology on August 24, 2023. The trainees included Joint Secretaries of the Government of Bangladesh and officers of equivalent rank from the Bangladesh Army, Air Force, and Navy. On this occasion, a seminar titled ‘Green Lifestyle by Science and Technology’ was organized. During the seminar, speakers emphasized the importance of preventing energy misuse, reducing the wastage of electric lighting, eliminating plastic and polythene uses, implementing the 3R (Reduce, Reuse, Recycle) policy, conserving rainwater, and utilizing natural resources efficiently.

4.2.2. Pink Moon Observation Camp

On the night of April 24, 2024, the Pink Moon was observed in the night sky. It is a full moon and the moon is closer to the Earth at this time, making it appear larger and brighter than usual. Although it is called a pink moon, the color of the moon is not pink. The name comes from the North American wild flower 'phlox' that usually blooms in April. To explain this cosmic event and present a close-up view of the Moon to the general public, a special space observation camp was organized at the Science Museum on that day. Teachers, students from various educational institutions in Dhaka, and members of the general public participated in the event.

4.2.3. Science Awareness Program through Drama

The progress of a nation is not possible without the advancement and dissemination of science. To spread scientific knowledge among the general public, it is essential to present science education in a simple and accessible manner. Plays on the themes of science play a significant role in simplifying scientific concepts for audiences at all levels from grassroots to higher education. To make science education more engaging,

the National Museum of Science and Technology organizes science-themed plays in various parts of the country. These performances spark interest in science among science students, general students, and the public. They help build scientific awareness and reduce ignorance and superstition. Recently, a science-themed play named ‘Food Adulteration’ was staged at the National Museum of Science and Technology and performed by students from Sher-e-Bangla Nagar Government Girls’ High School. On April 28, 2024, a science play titled ‘Kalo Chhaya’ (Black Shadow), focusing on air pollution, was performed in Rajshahi city by Bhor Holo Sanskritik Bidyalaya and sponsored by this organization.

4.2.4. Lectures on Science

The Science Museum organizes science lectures for students from various educational institutions across the country to help develop their talents and enhance creativity. One of the most effective ways to unlock the vast potential of youth is by offering platforms that allow them to actively engage with scientific knowledge. In addition to hosting lectures on the Museum campus, these activities are also carried out nationwide through registered science clubs.

In this continuation, Lectures on science are regularly organized for students of the educational institutions to develop scientific awareness and foster innovative thinking among the younger generation. As part of this initiative, a science lecture titled ‘Eat More Fish, build a Nation rich in IQ’ was held for teachers and students at the National Museum of Science and Technology on May 15, 2024.

4.2.5. Science Seminar

One of the key prerequisites for building a science-minded nation is the widespread promotion of scientific awareness. The National Museum of Science and Technology is actively working to integrate this goal into all of its activities. In this context, science seminars and discussion meetings play a pivotal role in creating long-term impact. To this end, the Science Museum regularly organizes science seminars and meetings across the country. These events are often held under the patronage of local Upazila Administrations and the National Science and Technology Museum, even in remote and underserved areas. Support is also provided by science clubs at various institutional and regional levels. In the fiscal year 2023–24, although the annual work plan set a target of 225 science meetings and seminars nationwide, a total of 229 events were successfully organized through the tireless efforts of the Science Museum. Additionally, science awareness seminars are regularly held on the Museum’s premises, attended by teachers, students, and officials from both government and private organizations. The topics and themes of these seminars and workshops includes the following:

- Scientific Diet for Health and Well-being;
- Application of Modern Technology in Maritime Safety;
- Application of Modern Technology in Reducing Carbon Emissions;
- Special Seminar on Acquiring Knowledge of Nuclear Science;
- Citizens’ Duties in Controlling Dengue;
- Role of the 4th Industrial Revolution in Building Smart Bangladesh;
- Seminar on the Occasion of International Museum Day;



- Compliance with Environmental Laws: Role of Science and Technology;
- Modern Bangladesh: Role of Science and Technology in Road Infrastructure Development;
- Green and Clean Energy for a Sustainable Bangladesh;
- Science, Technology, and Ethics in Combating Corruption;
- Scientific Diet for Children and Adolescents;
- Seminar on Measures to Protect Biodiversity;
- Green Lifestyle through Science and Technology;
- Transforming Society by Robotics Technology.

4.3. Brief Description of Seminars at NMST

4.3.1. Seminar on Changing Eating Habits

In addition to inspiring general visitors and students to pursue science education, the Science Museum organizes meetings and seminars on various important and life-oriented topics throughout the year. Balanced nutrition and healthy eating habits are vital aspects of maintaining good health. In a seminar organized on this subject, speakers emphasized the need to bring about positive changes in the eating habits of children and adolescents. The main theme of the seminar was: “The Role of Science and Technology in Health Awareness,” and Dr. Md. Mostafizur Rahman, a physician at the capital’s Neuroscience Hospital, presented the keynote paper.

4.3.2. Emphasis on Applying Modern Technology in Maritime Safety

A seminar on the Application of Modern Technology in Maritime Safety was also organized at the National Science and Technology Museum. The seminar discussed various issues related to maritime accidents and shipwrecks, such as identifying storm signals and appropriate emergency responses during disasters at sea. The use of radio control equipment and other technology is essential on every vessel; to receive real-time information about water depth while a vessel is in motion, installation of state-of-the-art technology. Advanced systems capable of receiving immediate signals about the presence and location of submarines; the use of fog lights must be made mandatory on vessels navigating through dense fog; to prevent maritime crimes such as oil theft through a vessel tracking system; additionally strict surveillance using modern technology to prevent the dumping of waste into rivers and the sea; technology should be employed to immediately detect which vessel has committed such offenses; a technologically advanced communication system ensured to guide vessels to safe shelter as soon as a storm warning issues. The maritime safety engineers actively participated in an open discussion with these.

4.3.3 Seminar on the Responsibilities of Citizens in Controlling Dengue

Dengue outbreaks increase dramatically in our country during the rainy season and its aftermath, and the incidence has risen significantly in recent years. However, with a bit of awareness and a strong sense of responsibility, we can make this challenging situation much more manageable. To help control the spread of dengue, a seminar was held at the National Science and Technology Museum with students from Noakhali Science and Technology University. The focus was on encouraging citizens to maintain strict discipline and cleanliness in their own lives, rather than relying

solely on government efforts. One of the primary goals of such seminars is to raise public awareness and motivate collective action.

4.3.4. Special Seminar on Acquiring Knowledge of Nuclear Science

The Science Museum is not just for exhibitions. As a hub of practical science education and practice, the Museum has now expanded its activities in multiple directions. To make these initiatives more enriching and people-friendly, a special seminar was organized at the Science Museum in collaboration with officials from the Bangladesh Atomic Energy Commission.

The Science Museum will not only feature historical scientific exhibits, but will also include modern scientific innovations. A nuclear science corner has been established to provide young scientists and students with contemporary ideas. In this seminar organized at the Science Museum, officials from various government departments and teachers and students of educational institutions highly praised the activities of the Science Museum. The officials participating in the seminar also expressed the hope that the efforts of the Science Museum to bring the wonders of modern science to the visitors will spread across the country in a wider scope.

4.3.5. Seminar on Protection of Biodiversity

To raise awareness about biodiversity conservation, a stakeholder meeting and seminar was held at the Science Museum with representatives from various educational institutions, science clubs, government agencies, and young scientists. Teachers can play a vital role in fostering interest in science education. To address this, the country needs development not only through formal meetings and seminars but also through the application of appropriate technology. The keynote address was delivered by Professor Dr. Md. Neyamul Naser, former Chairman of the Department of Zoology at the University of Dhaka. At the event, young scientists and innovators appealed for government support in implementing their innovations.

4.3.6. Seminar on ‘Curing Corruption: Science, Technology and Ethics’

One of the prerequisites for building a science-minded nation is the widespread cultivation of scientific awareness. Efforts are being made to integrate this objective into all activities of the National Science and Technology Museum. A seminar titled “Prevention of Corruption in Land Registration: Science, Technology, and Ethics” was organized for 35 Sub-Registrars from the Registration Department, who were participants in the 7th Foundation Training Course of BPATC during their visit to the Science Museum.

4.3.7. Seminar on the Healthy Diet for Children and Adolescents

A healthy diet refers to one that helps maintain or improve overall health. It provides the body with essential nutrients such as fluids, macronutrients, micronutrients, and adequate energy. To promote awareness on this topic, a seminar on scientific nutrition was organized at the National Science and Technology Museum. The keynote address titled “Diet of Children and Adolescents: A Scientific Analysis” was delivered by Dr. Sheikh Mahtabuddin, Senior Scientific Officer at the Bangladesh Atomic Energy Regulatory Authority. In his speech, Dr. Mahtabuddin explained the importance and necessity of a scientific diet for children and adolescents. He



presented a scientific discussion on how food intake affects the digestive system and how the diversity of food items impacts the human body. Officials from various government institutions and teachers and students from different schools in Dhaka participated in the seminar.

4.3.8. Seminar on Environmental Issues for Government Officials

A seminar titled ‘Compliance with Environmental Laws: Science and Technology’ was held at the National Museum of Science and Technology; forty officials from various government departments, including participants in a training course organized by the Department of National Archives and Libraries, took part in the event. The keynote paper was presented by Director of the National Museum of Science and Technology. The seminar called on everyone to play an important role and take responsibility in protecting the environment, emphasizing that without environmental awareness, our very existence could be at risk.

4.3.9. Role of the 4th Industrial Revolution in Building Smart Bangladesh

As part of the e-Governance and Innovation Action Plan 2023–24, the National Museum of Science and Technology organized a seminar on May 15, 2024 chaired by Director General. All officials and employees of the National Museum of Science and Technology participated in the seminar titled “Role of the 4th Industrial Revolution in building Smart Bangladesh.” The Fourth Industrial Revolution (also known as Industry 4.0 or 4IR) is an ongoing transformation. As a result, the boundaries between the real and virtual worlds are beginning to blur. According to Klaus Schwab, this revolution represents the integration of hardware and software, the exchange of information in production systems and technology, and the interconnection between biological and technological systems.

4.4. Service Quality Improvement Activities

4.4.1. Training Program

The National Museum of Science and Technology organizes thematic training sessions and workshops throughout the year to enhance the skills of its officials. Notable among these are:

- Training on Right to Information
- Grievance Redress System
- Training on ‘D-Nothi’
- Training on Disposal of Audit Objections
- Training on E-Governance
- Implementation of the National Integrity System

4.4.1.1. Training on ‘Grievance Redress System’

A special training program on ‘Grievance Redress System’ was conducted for employees at all levels of the organization. The training covered the causes of various institutional complaints and detailed methods of resolving them. Additionally, participants received practical training on using the GRS (Grievance Redress System) software, which provides a simple and modern solution for registering and resolving complaints in government offices. Such training helps create a clear and transparent understanding of grievance management systems.

4.4.2. Learning Sessions

Under the Annual Performance Agreement, multiple learning sessions are conducted on relevant and timely topics to improve staff competency. Expert trainers lead these sessions with insightful discussions and provide clear, practical answers to participants' questions.

4.4.3. Stakeholders' Meeting

Stakeholder Meetings provide an opportunity to gather feedback from the service recipients of the Science Museum. Based on their opinions and suggestions, the museum continuously introduces innovations in its activities. This approach helps ensure that the museum's operations remain aligned with its goals and objectives, while also facilitating necessary improvements.

4.5. Innovative Activities

The Science Museum is working tirelessly to promote science and technology and contribute to the nation's prosperity. The National Museum of Science and Technology is committed to transforming scientific discoveries and innovations into new dimensions of progress. To this end, the Museum conducts various innovative activities each year involving young innovators and students from across the country. These activities are showcased as part of the e-Governance and Innovation Action Plan. In addition to supporting the innovations of young scientists, the museum also hosts special receptions to honor national and international award-winners.

4.5.1. Launching of e-Ticketing

E-ticketing is an electronic ticket booking service. Through this system, general visitors and students can easily purchase tickets to the Science Museum online from anywhere in the country, at any time. Starting from February 1, 2024, the National Museum of Science and Technology launched the e-Ticketing service for all visitors. Tickets could be easily obtained from the 'E-Ticket' option on the museum's official website: www.nmst.gov.bd. In this system, visitors can purchase not only entry tickets but also tickets for the 4D movie show, VR experiences, and telescope viewing sessions by paying the designated fees online in advance.

4.5.2. Launching of Virtual Gallery

A virtual gallery exhibition has recently been added to the services of the Science Museum for the convenience of visitors. This virtual gallery offers a unique opportunity to explore science-themed exhibition galleries without physically visiting the museum. Visitors can directly access the virtual gallery through a link provided on the Science Museum's website (www.nmst.gov.bd). In addition to virtually touring the galleries, users can also learn about the exhibits through detailed explanations. Each exhibit in the galleries is accompanied by a viewpoint link, allowing visitors to access descriptions and scientific explanations related to that particular item.

4.5.3. Reception accorded to Internationally winner Young Scientists

To foster the development of scientific discovery and innovative thinking among the younger generation, the National Museum of Science and Technology presents awards and honors recognizing exceptional discoveries and contributions in the field of science and technology. As part of this initiative, a reception was held at the



National Museum of Science and Technology on February 6, 2024, to honor the winning members of the 20th International Junior Science Olympiad (IJSO) and the 25th International Robot Olympiad (IRO). To encourage and celebrate the winners, Md. Ali Hossain, Secretary of the Ministry of Science and Technology, attended the event as the Special Guest. Also present as Guests of Honor were Professor Lafifa Jamal, Associate Professor and Chairperson Senjuti Rahman from the Department of Robotics and Mechatronics Engineering at the University of Dhaka, Munir Hasan, Senior Vice-President of the Bangladesh Science Popularization Society, and Professor Farsim Mannan Mohammadi, General Secretary of the same organization, along with many others. The welcome speech was delivered by Director General of the National Museum of Science and Technology.

The Winning members of the IJSO team are mentioned below:

Sl. no.	Name of Students	Name of Institution
1.	Fayez Ahmed	Government Laboratory High School, Rajshahi
2.	Serazus Salekin Samin	Comilla Victoria Government College
3.	Monamy Zaman	Viqarunnisa Noon School and College
4.	Taslina Tasnim Lamia	Comilla Victoria Government College
5.	Suvashish Halder	Notre Dame College
6.	Sabil Islam	Dhaka Residential Model College

The winning members of the IRO team are:

Sl. no.	Name of Students	Name of Institution
1.	Zaima Jahin Wara	William Carey Academy
2.	Mahruz Mohammad Ayman	Navy Anchorage School and College
3.	Nasheetat Zainah Rahman & Fatin Al Habib Nafis	Mastermind English Medium School
4.	Propa Halder	Bir Shreshtha Munshi Abdur Rouf Public College
5.	Marjia Afifa Prithibi	South Point School and College
6.	Samia Mehnaz, Maisha Sobhan and Sadia Akter Sarna	Viqarunnisa Noon School and College
7.	Misbah Uddin Inan	Chittagong Cantonment Public College
8.	Maskur Malik Mustafa	Notre Dame College
9.	Mahir Tajwar Chowdhury	Mirzapur Cadet College
10.	An-nafew and Rubaiyat H Rahman	Dhaka Residential Model College
11.	Namia Rauzat Nubala and Khandokar Shamil Mahadi bin Khalid	Hardco International School

4.6. Infrastructure Development Activities

4.6.1. Modernization of Prashanto Sarobar and Green Umbrella

The artificial hills and fountains installed on the green lawn of the National Science and Technology Museum have been redesigned and modernized in a new style, now open to visitors. Here, visitors can enjoy a refreshing natural environment while engaging with science in a hands-on and interactive setting.

4.6.2. Installation of Sports Equipment for Children

The Science Museum offers a variety of equipment for children's entertainment. In addition to a dedicated children's Corner inside the Museum, there is a spiral zone and various play structures in the outdoor courtyard.

4.6.3. Construction of a Road with Tiles

A road paved with parking tiles has been constructed through the green lawn area of the Science Museum to facilitate exploration. This area features various fruit-bearing and medicinal trees, offering visitors the opportunity to enjoy and explore a natural and pleasant environment.

4.6.4. Setup of a Scientist Corner

The world today has been greatly enriched with the contributions of renowned scientists from various parts of the globe. To introduce general visitors to the brief life histories and achievements of these eminent scientists, a dedicated Scientist Corner has been established at the Science Museum. This corner has been named in honor of the famous Bangladeshi scientist, Jamal Nazrul Islam.

4.6.5. Establishment of Child Care and Breast-Feeding Corner

A Day-care Center and Breast-Feeding Corner have been set up on the ground floor of the Science Museum to care for the children of working mothers and women visitors to provide them with proper support. This initiative is especially beneficial for the female employees of the Science Museum.

4.6.6. Installation of Glass Enclosure in the Garden Adjacent to the Gate

An attractive flower garden has been created adjacent to the administrative gate and gallery gate of the Science Museum. As part of protecting and enhancing the beauty of the garden, a glass fence has been installed around it.

4.7. Celebration of Various Days and Events

The Museum conducted Science Lectures, Quiz Competitions, Science Olympiads, Science Meetings, Writing Competitions, Drawing Contests, and Oath-taking Ceremonies on Integrity for teachers, students, and guardians of schools, colleges, and universities. These events were held on the occasion of significant days including the Great Victory Day 2023, the Great Martyrs' Day and International Mother Language Day 2024, the National Children's Day 2024, and the Great Independence Day and National Day in 2024.

4.7.1. Tribute and other programs for Great Martyrs' Day and International Mother Language Day

In commemoration of great Martyrs' Day and International Mother Language Day, the National Museum of Science and Technology laid a wreath at the National Shaheed Minar to pay tribute to the martyrs of the historic Language Movement. To celebrate this year's Great Martyrs' Day and International Mother Language Day 2024, the National Science and Technology Museum organized a quiz competition and Science Lectures. Over a hundred students from various renowned educational institutions in Dhaka took part in this event. The written Quiz Competition covered a range of scientific topics, as well as important subjects such as the Language



Movement and the Liberation War of Bangladesh. Following the Quiz, a Science Speech Competition was held, where participants discussed the importance of science education and various ways science and technology impact everyday life.

4.7.2. Celebrating great Independence Day

National Museum of Science and Technology reverently and gratefully remembers the brave children of the country who sacrificed themselves for independence. On this day, the entire museum campus was illuminated with decorative lights and was open to the general public for free.

4.7.3. Special Drawing & Painting Competition on National Children's Day

To celebrate National Children's Day 2024, the National Museum of Science and Technology hosted a festive drawing and painting competition for children and teenagers. More than a hundred students from various educational institutions in the capital participated in the event. The competition was divided into three groups, ranging from young children up to tenth-grade students. Winners of the competition were awarded prizes and also given free tickets to visit the science museum.

4.8. Publications

To promote the study of science and technology, the Science Museum regularly publishes various publications as part of its awareness campaign. In these publications, quarterly science magazine Nabin Bigyani, is regularly published by the museum. It features science-related articles written by the country's young science writers as well as college and university teachers, serving as a valuable resource for aspiring scientists and students. A special quarterly publication titled Science and Technology Museum Darpan also has been published. As part of its information based publishing activities throughout the year, the museum published and sponsored the following ten publications in 2023-24:

Sl	Name of Publication	Period
1.	Darpan (Ninth Issue)	August-2023
2.	Annual Report 2022-23	October-2023
3.	7th RUSC National Science Fiesta 2023	October-2023
4.	White Origins	November-2023
5.	Darpan (Tenth Issue)	December-2023
6.	44th National Science and Technology Week Report	February-2024
7.	Orbital Science Magazine	February-2024
8.	Naveen Scientist	April-2024
9.	Darpan (Eleventh Issue)	April-2024
10.	Darpan (Twelfth Issue)	June-2024

4.9. Administrative Activities

4.9.1. Recruitment and Promotion

(a) 2 employees have been appointed to 2 categories of posts in the Revenue Department

Serial	Name of the Post	Grade	Manpower Employed
1	Office Assistant Cum Computer Typist	16	1 Person
2	Gallery Attendant	18	1 Person

(b) Information of Promotions: 2 persons of the employee level have been promoted.

Sl	Main Post and Grade	Promoted Posts and Grades	Number
1	Stenographer cum Computer Operator (Grade-14)	Stenographer cum Computer Operator (Grade-13)	1 Person
2	Office Assistant (Grade-20)	Gallery Attendant (Grade-18)	1 Person

4.9.2. Budget and Expenditure Statement for Fiscal Year 2023–24

Particulars	Allocated Fund (2023-24)	Expenditure from Allocated Fund
Recurring Grants		
Salary Assistance	2,07,10,000	1,82,03,989
Allowance Assistance	1,87,55,000	1,66,00,115
Consumption of Goods and Services	10,80,27,000	8,83,13,060
Pension and Retirement Assistance	84,30,000	82,42,079
Special Grants	5,00,00,000	4,82,55,523
Research Grants	12,00,000	11,46,331
Other Grants	4,30,000	2,11,980
Machinery Grants	1,00,73,000	1,00,02,105
Information and Communication Technology Grant	10,50,000	4,87,285
Other Capital Grant	5,25,000	2,60,209
Total	21,92,00,000	19,17,22,676
In other words: Twenty-one crore ninety-two lakh taka only. Nineteen crore seventeen lakh twenty-two thousand six hundred seventy-six taka only.		

4.9.3. Implementation of Annual Performance Agreement (APA)

Subjects-Programs	Number
☞ Mobile Science Exhibition	253
☞ Science Meetings, Seminars, Lectures and Workshops	229
☞ Science and Technology Fair	566
☞ Science Olympiad	565
☞ Science Quiz, Drawing and Debate Competition	590
☞ Telescope Exhibition, Sky Observation through Observatory	175
☞ Number of Museum Visitors	1,27,827
☞ Scientific Journals and Books Published	10
☞ Subject-Based Learning Sessions and Science Camps	10



5.0 Other Activities

5.1. Giving National Integrity Award

The Integrity Award is a recognition introduced by the Government of the People's Republic of Bangladesh. It is awarded to government employees based on their professional skills, honesty, and dedication. The Integrity Award Policy 2017 was published on April 6, 2017. As part of this initiative, the Science Museum has awarded the National Integrity Award to three of its officials and employees for their creative and commendable works in the current fiscal year.

5.2. Tree Plantation and Greening

To foster a green environment numerous fruit and medicinal trees have been planted in the courtyard of the National Science and Technology Museum. This initiative is expected to be a unique attraction, especially for visitors interested in botany. As part of this ongoing effort, a Tree Plantation Program was organized at the Museum on August 28, 2023. Under this program, 25 agar, 5 olive, and 5 Bahera saplings were planted near Gate No. 1 by Museum officials, employees, and students. Additionally, 40 saplings were donated to the Museum as a commemorative gift by Bureau Bangladesh, a non-governmental social development organization. During a brief speech at the event, the importance of tree plantation was highlighted. Attendees were encouraged to promote greenery on rooftops, balconies, and courtyards of their homes. Awareness was also raised about the proper care of plants, protecting urban birdlife, and maintaining a healthy environment. Earlier, a month-long Tree Plantation Program was also held at the Museum in observance of World Environment Day on June 5.

5.3. Science Museum Campus: As a Birds Sanctuary

The National Science and Technology Museum birds sanctuary has been made possible through the dedicated efforts and stewardship of Director General of the Science Museum. In the heart of this bustling brick city, a piece of land within the Museum grounds has become a refuge for wildlife, where 40 species of birds have found a secure and green habitat. These species were identified through a month-long bird census conducted in the Museum's modest five-acre area. The census was led by renowned bird and wildlife researcher Ashikur Rahman Shome. The noble initiative of the Science Museum aims to create a safe and favorable environment for these nature-friendly birds, contributing to ecological harmony.

5.4. Grants for the Science Clubs

As part of its scientific innovation initiatives, the National Museum of Science and Technology has awarded grant cheques totaling 7 lakh 20 thousand taka to the following six science clubs to support scientific publications and science-related activities:

Sl. Name of the Science Clubs

1. Rajshahi University Science Club
2. Jahangirnagar University Science Club
3. Dhaka University Science Society
4. Barguna Science Society
5. BUET Robotics Society
6. Department of Genetic Engineering and Biotechnology, University of Chittagong

The Science Museum regularly sponsors the innovative work of science-based organizations across the country to promote science education and engagement. These initiatives help foster students' interest in scientific activities and contribute meaningfully to build a science-minded nation.

5.5. Distribution of Umbrellas to Students

In response to the severe heat-wave, the National Museum of Science and Technology launched an initiative to distribute umbrellas to underprivileged students in remote areas of the country. In May 2024, museum officials distributed umbrellas to students in various districts including Dhaka, Chattogram, Kishoreganj, Narayanganj, Rangpur, and Faridpur. A total of 5,000 umbrellas were distributed among underprivileged students from various Primary and Secondary schools, madrasas, and orphanages in remote areas of Tangail, Jessore, and Narsingdi. These specially designed umbrellas, imported from China, aim to spark students' interest in science education in remote regions. Notably, as part of raising environmental awareness during the distribution program, science lectures were also organized for teachers and students. These lectures focused on topics such as tree plantation, environmental conservation, and eco-friendly lifestyles.

6.0. National Science and Technology Week

The National Science and Technology Week has been celebrated since 1978. This event is organized in two stages: first at the upazila, district, and divisional levels, and then centrally in Dhaka at the National Science and Technology Complex as the "National Science and Technology Week." The event includes various exhibitions, such as science project presentations, a science Olympiad and a science-related quiz competition.

6.1. Celebration of 45th National Science and Technology Week

45th National Science and Technology Week was celebrated across the country supported and sponsored by the National Museum of Science and Technology, during the fiscal year 2023-24.

Students from secondary schools and madrasas equivalent institutions participated in the junior group. Higher secondary students compete in the senior group, while members of private science clubs and amateur innovators participated in the special group. The events, held at the upazila, district, divisional, and central levels, included a science fair with project displays, a science Olympiad, and a science quiz competition. Approximately four hundred thousand students participated in these nationwide events.

6.1.1. Science Fair

Students who placed first, second, and third in each group at the upazila-level science project competition advance to the district-level science fair. At the district level, the top competitors from the junior, senior, and special groups then participate in the central science fair in Dhaka. In the fiscal year 2023-24, the National Museum of Science and Technology organized a total of 566 science fairs, from the upazila to the central level.



6.1.2. Science Olympiad

Students who place from first to fifth in each group at the upazila level across the country participate in the district-level Science Olympiad. At the district level, those who come in first and second in each group advance to the central Science Olympiad. In the fiscal year 2023-24, the National Museum of Science and Technology organized a total number of 566 Science Olympiads, from the upazila level to the central level.

6.1.3. Science Quiz Competition

Science-related quiz competitions are held at the upazila, district, and divisional levels across the country. The winning teams consisting of three members who place first, second, and third in each upazila, for a total of nine students go on to participate in the district-level competition. Similarly, the nine winning students from the three winning teams at the district level then move on to the divisional-level quiz competition. Finally, the three winning teams from each division advance to the central science quiz competition. In the fiscal year 2023-24, the National Museum of Science and Technology organized a total of 567 science-related quiz competitions nationwide.

6.1.4. Information on the winners of the various competitions at the 45th National Science and Technology Week

Following the upazila, district, and divisional levels, the 45th National Science and Technology Week was celebrated at the central level in Dhaka on June 11-12, 2024, with the winners of the previous stages. The list of central-level winners is as follows:

Winners of the project evaluation at the 45th National Science and Technology Science Fair:

Junior Group

Place	Project Name	Competitor Name	Name of Organization & District
1st	Robotics System	Md. Mutasim Billah	Sharifabad School and College, Nilphamari
2nd	Artificial Intelligence	Mahir Asif Mahin	Darul Islah Academy, Joypurhat
3rd	AI Robot Thombro	MD.Washiun Alim	Sylhet Govt. Pilot High School, Sylhet
Special-1	Myoelectric Prosthetic Hand	Safwanur Rahman and College, Dhaka	Bangladesh International School
Special-2	Ways to prevent air High pollution Kishoreganj	Tahsin Raiyan School, Kishoreganj	Kishoreganj Government Boys
Special-3	Smart Multipurpose Secondary Drone	Kazi Nowshad Hasan Ratul	Kumarkhali Mathuram School, Kushtia
Special-4	Ionic Thruster and Radar System	Mohammad Abdullah Al Titu	Uchakhila Higher Secondary School, Mymensingh
Special-5	One Stop Security	Mostak Shahriar & Sabilur Rahman	Bogra Zilla School, Bogra

Senior Group

Place	Project Name	Competitor Name	Name of Organization & District
1st	Farming With Big Data	Sadman Shakib Mahi	Comilla Victoria Government College, Comilla
2nd	Artificial Photosynthesis	Md. Taseen Imrose & Abdullah Al Bashar	Rajshahi College, Rajshahi
3rd	Future of IoT and Automation	Md. Imtiaz Ahmed Nahid	Gazipur Cantonment Public School and College, Gazipur
Special-1	Universal Pico Upgraded Version	Polash Mondal and Ahsan Habib	Government Said Altafunnesa College, Joypurhat
Special-2	Footstep Solar hybrid	Partho Das	Naogaon Government College
Special-3	Smart Bangladesh needs safe travel	Md. Mustaq Tahmid Sirajganj	Sirajganj Government College,
Special-4	Vehicle Accident Control System	Al Adel	Narsingdi Independent College Special, Narsingdi
Special-5	Our Child's Education Management App	Md. Jihad Hosan	Meherpur Government Technical School and College, Meherpur

Special group

Place	Project Name	Competitor Name	Name of Organization & District
1st	AI Unmanned Aerial Vehicle (Octocopter Drone)	Rafi Hossain	Narsingdi Science and Robotics Lab, Narsingdi
2nd	Design & Implementation of a Voice Based Automated Medicine Reminder Box with IoT Patient Health Monitoring for Old People & Hospital.	Habibur Rahman Shirazy & Tahmid Bin Jamal	EsinE Tech Solution, Chittagong.
3rd	Modern Agricultural Machinery	Md. Mehedi Hasan	Pabna Logic Automation, Pabna
Special-1	Use of technology to control temperature & prevent power outages	Shanto Paul	Ghagra Science Club, Rangamati
Special-2	Sign Language Detector	Al Arman Ovi and Md. Toufiq Ahmed	Pundra University, Bogra
Special-3	Saver City	Ahnaf Bin Ashraf Nabil	Photon Science Club, Brahmanbaria
Special-4	Awareness on forests and nature and smart home automation and firefighter robot	Md. Kafe Islam Lemon	Barna Science and Technology Club, Gaibandha
Special-5	Recycling plastic with 3D printer	Al Imran	Government Maulana Mohammad Ali College, Tangail



List of Winners of the 8th National Science Olympiad Junior Group

Name	Name of the Educational Institutions	Merit List
Md. Najib Mahmud	Khulna Zilla School, Khulna	First
Md. Nuruzzaman Khan	Hajiganj Government Model Pilot High School and College, Chandpur	Second
Abdullah Al Sajid	Harimohan Government High School, Chapainawabganj	Third
Md. Farhan Mahdi Ul Alam	Northland Model School, Lalmonirhat	Fourth
Shadman Alim Nirjhor	Pabna Zilla School, Pabna	Fifth

Senior Group

Name	Name of the Educational Institutions	Merit List
Fatema Maria	Narayanganj Government Women's College, Narayanganj	First
Tasnim Tabassum	Sirajganj Government College, Sirajganj	Second
Md. Omar Farhan	Bhola Government College, Bhola	Third
Taslima Tasnim Lamia	Comilla Victoria Government College, Comilla	Fourth
Labiba Tasneem	Gazipur Government Women's College, Gazipur	Fifth

List of the Winners of the 8th Science Quiz Competition

Rank	Name of Institution & District	Names of Students
1st	Khulna Zilla School, Khulna	Md. Najib Mahmud, S. M. Tawhid Reza Asib, and Arnob Saha
2nd	Pabna Zilla School, Pabna	Nabil Hasan, Shadman Alim Nirjhor and Nazmul Huda
3rd	Tilakpur High School, Joypurhat	Mst. Ishrat Jahan Isha, Mst. Nusrat Jahan Tisha, and Md. Sazid Mahmud

7.0 The Way Forward

As the nation's only institution of its kind, the National Museum of Science and Technology faces various limitations in expanding its activities nationwide. Despite these challenges, the museum remains unwavering in its commitment to achieving its goals.

8.0

PHOTO GALLERY



Image: Main building of the National Museum of Science and Technology



Image: National Science and Technology Complex under the National Museum of Science and Technology



Image: 400-seat Auditorium (National Science and Technology Complex)



Image: 500-seat Multipurpose Hall (National Science and Technology Complex)



Image: Virtual Reality (VR) Corner



Image: Green lawn outside the museum



Photo: Observation Camp of the Pink Moon on the Rooftop of the Science Museum



Photo: A Scene from the Performance of a Play on the theme of Science



Photo: Students Participating in a Lecture on Science



Photo: Mobile Science Exhibition at Dhaka Cantonment Girls Public School and College Premises



Photo: Mobile Science Exhibition for students of Dr. Khastagir Government Girls' High School in Chittagong



Photo: Visitors at the Exhibition Activities during the Space Observation Camp in Barguna



Photo: Project presentation at the Science Fair held in Ramgati Upazila, Lakshmipur





Photo: Competitors presenting their Projects in the 45th National Science Fair



Photo: Students participating in the 8th National Olympiad

Photo: Students participating in the First Round of the Science Quiz Competition



Photo: Guests attending the Special Seminar on Nuclear Science

Photo: Sub-Registrars of the Department of Registration participating in the Seminar at the Science Museum



Photo: A Group of Students visiting the Science Museum



Photo : Visitors visiting the gallery



Photo: Learning session titled 'Cyber Security and Future Bangladesh'



Photo: Teachers, Students and Guardians participating in the Stakeholder Meeting



Photo: Science Museum pays Tribute to National Shaheed Minar on Great Victory Day and International Mother Language Day



Photo: BPATC Trainees participating in a seminar at the Science Museum



Photo: Green Lawn and Various Sports Equipment for Children's Entertainment



Photo: Newly Established Childcare and Breast-feeding corner at the Science Museum



Photo: Glass wall Installed in the Garden Adjacent to the Museum's Gallery and Administrative Gate



Photo: Students participating in the Mother Language Day Quiz and Science Speech Competition





Photo: Exterior of the Science Museum decorated with lights on the Victory Day



Photo: Participants of the Painting Competition



Photo: Disabled students and their parents visiting the Science Museum



Photo: Some of the Participants in the Recruitment Test at the Science Museum

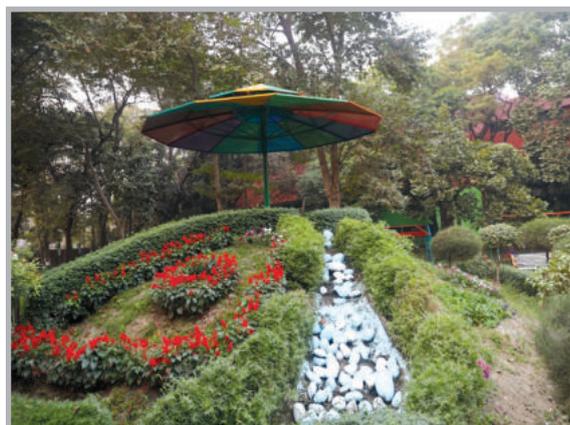


Photo: Prashant Sarobar, newly adorned on the Green Lawn of the Science Museum