

The Dawood Foundation's

**Magnifi
Science
CENTRE**



MagnifiScience Centre

Newsletter Q4-2023

Science is for everyone!

CEO's Note

« **2023 was a year of inspiring creativity, connection and innovation.** »



Welcome to the fourth edition of our quarterly newsletter!

2023 was a remarkable year for MagnifiScience Centre with many highlights and milestones, from meaningful new partnerships and initiatives to on-site field trips and in-person events. Above all, it was a year of inspiring creativity, connection and innovation.

We welcomed over 415,909 visitors—curious minds of all ages—to enjoy science learning experiences, programs and exhibitions, since our opening in September 2021. It was a pleasure to see so many happy visitors, excited to explore, discover and be inspired by science.

We continued to expand our Science Centre providing exciting new science learning experiences for our visitors. The new themes introduced in Q4 2023 are: Cosmic Voyage, Earth Rocks, Woodland Walkway, and Registaan: The Desert Region.

These new themes offer visitors the opportunity to observe and discover scientific concepts in a hands-on manner, providing a holistic learning experience for all.

Moreover, we launched an impressive number of new programs and workshops, hosted several events, including Science Shows, Genomic Youth Camp, Goethe-Institut Science Film Festival, World Space Week celebrations, Astroverse sessions, Junior Internships, STEAM Weekend Programmes and more.

Over the year, we have made conscious efforts to raise awareness about the growing concerns with regards to sustainability. There is no denying that the impact of environmental issues is significant and has implications for communities. Hence, MagnifiScience Centre contributed to this global cause via TDF Nature Series Documentaries Screening, Science Film Festivals, Exhibitions, Events and Competitions.

Lastly, our achievements in 2023 were made possible through the continuous support of our partners, donors, sponsors, colleagues and community. We could not continue to serve as a vibrant hub of innovative and accessible science education without your steadfast support and belief in the work we do.

Thank you for contributing to our vision to create a more curious, creative and inclusive Science Centre.

Let's look forward to yet another eventful year ahead.

Syed Fasihuddin Biyabani
Chief Executive Officer
The Dawood Foundation

Special Visits

Here's what our visiting guests are saying...

**H.E. Nicolas Galey,
Ambassador of France to Pakistan**

“MagnifiScience Centre has highly impressive exhibits inspiring curiosity and passion for science among visitors of all ages. With its interactive exhibits, and engaging demonstrations, MSC offers an unforgettable experience for science enthusiasts, families, and curious minds alike.”



**Dr. Salman Kirmani and
Mr. Gijis Walraven, AKDN**

Dr. Salman Kirmani, Chair of the Division of Women and Child Health and Mr. Gijis Walraven - Director Community Health at Aga Khan Development Network (AKDN) visited TDF's MagnifiScience Centre. During their visit at MSC, they were fascinated by the interactive activities at the Science Centre.



“The distinctive science exhibits at MSC are designed to provide hands-on learning experiences to people of all ages and backgrounds. The exhibits serve as a testament to MSC's mission of making science accessible, enjoyable, and educational for all of its visitors.”



Dr. Duncan Thomson, University of the West of Scotland

« I am amazed by the tour of MagnifiScience Centre, which features unique science exhibits that are especially designed for people of all ages and abilities. It's really nice to see that MagnifiScience Centre is using the same technologies as we use elsewhere in the world. »



US Department of State Delegation Visit

Moving forward together under “Green Alliance” framework, the US Department of State team which included Dr. Rebecca Peters, Senior International Water Policy Advisor and Waleed Hashmi, Senior Foreign Affairs Officer, visited MSC to discuss water and environmental security, trade, and investment opportunities.

During their visit the team discussed about the third Climate and Environment Working Group meeting scheduled for April 2024.

Genomics Youth Camp



TDF MagnifiScience Centre hosted a three-day Genomic Youth Camp from 10th to 12th November 2023, organized by the Goethe-Institut Pakistan. The event was held in collaboration with IMAGINARY and the University of Edinburgh. The camp opens doors for young minds from across Pakistan to explore the fusion of three worlds - German Language, Mathematics, and the Genetic Code.



The Genomics Youth Camp offered an engaging blend of workshops, interactive sessions, networking opportunities, culminating in final project presentations. Participants had a unique chance to immerse themselves in German language, delve into the intricacies of mathematics, and unravel the mysteries of genetic code.



The Genomics Youth Camp was guided by esteemed instructors Dr. Antonia Mey, a German physicist from the School of Chemistry at the University of Edinburgh and Dr. Natasha Anwar, a Pakistani Consultant Molecular Pathologist working at the Aga Khan University Hospital Outreach Lab.



Science Film Festival



Goethe-Institut Pakistan, in partnership with the MagnifiScience Centre hosted the fifth edition of Science Film Festival, from October to December 2023.

In 2023, the Science Film Festival was the official supporting partner of the United Nations Decade on Ecosystem Restoration. The theme is a rallying call for the protection and revival of ecosystems all around the world.

In addition to the film screenings, students from different schools set up table experiments and science activities to help fellow students learn more about the world around them. It was an opportunity for young learners to explore important environmental issues in creative and engaging ways.

Screenings of the films were held at multiple locations in the city, at the premises of partner schools, and were accompanied by activities focusing on 'Ecosystem Restoration'. The science films were also made available online giving access to audiences all over Pakistan.

Through the Science Film Festival, MSC aimed to increase awareness about diversity and inclusion in STEM education and create a dialogue between students and subject matter experts.

3rd Floor Inauguration

Q4 2023, saw the inauguration of four new sections on the 3rd floor of the MagnifiScience Centre. These new sections under the theme “Our World, Our Creation” cover the topics of astronomy, geology, forest and desert biomes.

Cosmic Voyage

Visitors can embark on an astronomical journey, learn about planetary motions, what are Saturn rings made of, and how does the moon have phases. One can also explore the solar system, learn about Earth’s rotation, the angle of sunlight interaction to create different seasons and the concept of Earth’s curvature illustrated through a gravity well. In this section, visitors also get an idea about the vast expanse of the universe encompassing the solar system, the Milky Way galaxy, other galaxies, neighbouring suns, and beyond.



Earth Rocks

Visitors can explore geological exhibits, featuring the story of Earth’s evolution through billions of years. Engaging with a series of displays, visitors can experience the fascinating process of rock folding, showcasing the diverse and captivating textures that result from it. They can trace the formation of Earth’s continents, beginning from 540 million years ago during the Phanerozoic era, all the way to the present with the presence of seven continents. Visitors also get a chance to explore the formation of mountains and volcanoes. To enrich the experience, there is a showcase of a wide array of rocks, including sedimentary, igneous, metamorphic, and semi-precious stones.



Woodland Walkway

We depend on forests for our survival, from the air we breathe to the wood we use. Besides providing habitats for animals and livelihoods for humans, forests also offer watershed protection, prevent soil erosion and mitigate climate change. Yet, despite our dependence on forests, we are still allowing them to disappear. In this section visitors can explore the ecosystem of the forests and learn about their ecological significance. As they walk down the pathway, they can observe the amazing variety of flora & fauna and dense foliage that makes up a forest.



The Desert Region

Deserts are one of the most important biomes of the ecosystem, yet they are often neglected as being the dry zone. There are 15 mineral deposit types on our planet and 13 of these are found in deserts. Pakistan hosts five deserts which were historically forests. Deserts provide biodiverse habitat in the form of various reptiles, flamboyant birds, cattle and succulents (plants). The sand provides ample ground for carbon sequestration as much as the forest's cover. In this section visitors can explore the diverse ecosystem of Tharparkar.



Media Event

The MagnifiScience Centre organised a media event for the launch of the new themes featuring Cosmic Voyage, Earth Rocks, Woodland Walkway, and Registaan - The Desert Region.

These new themes offer visitors the opportunity to observe and discover scientific concepts in a hands-on manner, providing a holistic learning experience for all ages.

Prominent environmentalists, journalists and subject matter experts including Zarrar Khuhro, Afia Salam, Shahzeb Jillani and Dr. Hina Baig attended the inauguration media event.

Media outlets including representatives from Dawn, Geo, ARY, Samaa, Discover Pakistan amongst others, were present on the occasion.

3rd Floor Inauguration: Media Event





AKUH Women and Child Health Centre

Aga Khan University Hospital (AKUH) Centre of Excellence in Women and Child Health (WCH) collaborated with the MagnifScience Centre to create a one-of-a-kind children-friendly experience that would keep the children engaged while they wait for their appointment.

MSC team created an oceanic themed experience for young visitors, highlighting the significance of marine life and the relationship between humans and the sea, with particular relevance to Karachi.

The interactive space in WCH is divided into two distinct zones:

Active Zone featuring the deck and hull of a ship, designed to inspire a sense of exploration in children.

Quiet Zone incorporates seascape imagery, an aquatic color palette, and biomorphic furniture, to create a calming effect.

This oceanic immersive experience helps children feel comfortable and less anxious at WCH while also educating them about marine and ocean life, creating a positive experience for all who visit the centre.



Pakistan Learning Festival

The Pakistan Learning Festival (PLF) 2023, was held at the Arts Council of Pakistan from 7th-8th November 2023.

The two-day event was organised with the support of the British Council, UNICEF, The Dawood Foundation (TDF) and others. PLF offered a diverse range of activities, from storytelling, poetry recitations, screenplays, dance performances to musical extravaganza, and dramas.

TDF participated in the PLF Karachi chapter with the screening of TDF Nature Series documentary, the "Desert Dwellers of Tharparkar". Discussions and interactive Q&A sessions were encouraged about climate change and the environmental challenges faced by Tharparkar's ecosystem. The Nature Series documentary screening engaged over 1,100 students and academics.

The festival attracted a diverse group of participants, including renowned authors, educators, and performers. Visitors had the opportunity to engage with scholars, attend insightful talks, and witness captivating performances that blend entertainment with education.

On this occasion Mrs. Rana Hussain, Minister School Education & Literacy, College Education & Women Development Department, Govt. of Sindh said, "*The festival was more of a social movement that held engaging panel discussion on creativity, critical thinking, communication, environment and climate change as well as creative exhibitions and storytelling sessions. Learning should not be kept limited to books and should be brought outside as children learn from everything they see and participate in.*"



World Space Week

World Space Week (WSW) is the largest annual space event in the world, celebrating achievements and contributions of Space Science, technology, and its applications. The United Nations General Assembly declared in 1999 that World Space Week will be held each year from October 4-10. These dates commemorate two events:

- October 4, 1957: Launch of the first human-made Earth satellite, Sputnik 1, thus opening the way for space exploration.
- October 10, 1967: The signing of the Treaty on Principles Governing the Activities of States in the Exploration and Peaceful Uses of Outer Space, including the Moon and other Celestial Bodies.

Each year a theme is selected by the World Space Week Association Board of Directors in close coordination with the UN Office of Outer Space Affairs. This year the theme for World Space Week 2023, was "Space and Entrepreneurship".

An inauguration ceremony of WSW 2023 was held on 4th October 2023, at SUPARCO National Center for Remote Sensing and Geo Informatics (NCRG), Karachi to formally commence World Space Week 2023, celebration in Pakistan.



The MagnifiScience Centre, participated in the WSW 2023 celebrations to educate young students and adults about space technology and its applications.

a) Collaboration with Karachi Astronomers Society :

An Astorverse session, in collaboration with the Karachi Astronomers Society was organized at the MagnifiScience Centre on 4th October 2023. Moiz Ahmed, an accomplished astronomer, took the audience on an astronomical journey, sharing information about the planet movements, their burning surfaces, what Saturn rings are made of, among many other interesting facts about the solar system.

Participants also got a chance to observe planetary activity through telescopes, which was followed by an interactive Q&A session. Over 246 participants attended the presentation and planetary observation activity.



b) Collaboration with Cosmic Tribe - Solar Observation Session

MSC in collaboration with Cosmic Tribe conducted an Astronomy and Solar Observation Workshop. The adventure began with a solar observation session, in which participants looked through the lens of a telescope, to see up close, the fascinating mysteries of sun. The attendees participated in a hands-on tour of the Orion constellations, using 3D models to find star patterns and learn about the great distances that define our universe. The Solar Observation Session was an engaging event, inviting people of all ages to use their imagination and ingenuity to explore the galaxy.

We are extremely grateful to Shahzada Dawood for his wonderful contribution of the eVscope Telescope to MagnifiScience Centre; without this priceless gift, we would not have been able to record these universal wonders.

c) An Interactive online talk on Life Cycle of Stars by Dr. Parul Janagal

Dr. Parul Janagal took the participants on a captivating voyage into the universe, exploring the intricate life cycles of stars, from their birth in cosmic nurseries to their dramatic finales.



d) Collaboration with Space Education and Awareness Drive SEAD, SUPARCO

SUPARCO, Pakistan's National Space Agency, launched the 'Space Education and Awareness Programme' to:

- Inspire future space scientists.
- Expand young minds.
- Enhance the country's scientific and technological capacity.

This program introduced the youth to space science technology and career opportunities, making learning both fun and inspiring.

e) Space Farming: A Glimpse Beyond Earth

Space farming is the practice of growing crops for food and other purposes in space or on extraterrestrial bodies in micro gravity. SUPARCO's Space Education and Awareness Drive team conducted an informative session about the world of space farming and its role in long-term space missions and planetary colonization. During the workshop participants discovered the latest methods employed in space farming and its potential to influence farming practices on Earth.

In addition, an overview of the mechanics and operation of the "Clinostat", a device which uses rotation to negate the effects of gravitational pull on plant growth and development was shared with the participants.

The week-long WSW 2023 celebrations at MSC aimed to inspire students; educate the public about space activities; and foster cooperation in space outreach and educational programmes.



Collaborations

Lahore Science Mela



The Lahore Science Mela is a two-day science fest organized by the Khwarizmi Science Society. The event showcased inventions, discoveries, experiments, science models and artifacts received from all parts of Pakistan.

The MagnifiScience travelling exhibition participated in the Lahore Science Mela 2023,



with the theme "Animal Superpower", the interactive exhibits encouraged visitors to explore and learn about the secrets behind the superpowers of the extraordinary animals.

The Science Mela provided an opportunity to engage everyone, especially children, to celebrate and experience science through hands-on games and experiments.

Universcience Workshop



A workshop titled "Fostering Understanding and Participation in Scientific Dissemination Activities" was conducted by École de la médiation, a collaborative initiative led by Universcience-EPPDCSI, a French organization specializing in designing training programs for professionals involved in outreach activities, and the Embassy of France in Pakistan.

The workshop focused on the dissemination of scientific information and strategies tailored to a diverse target audience for optimal comprehension. Twelve employees from TDF MSC participated in this three-half-day online training.

The online interactive training was an enriching experience, for the participants and they expressed satisfaction while also appreciating the opportunity to be a part of such a prestigious training program.

Collaborations

COP in My City

"COP in My City" is a youth-led project that aims to bridge the gap between climate negotiations and youth, to inspire local climate actions in all cities of the world. COP in My City 2023 was organised by Youth for Climate (Y4C) Pakistan in collaboration with UN Women, UNICEF and UNDP.

Pakistan, being highly vulnerable to climate change, is actively seeking mitigation and adaptation strategies to enhance resilience. In turning our climate commitments into tangible reality, the youth stand as our greatest hope, showcasing remarkable ambition to drive the green movement.

Y4C Pakistan organized events in different cities of Pakistan, giving Youth a chance to present their impactful contributions on climatic actions and Sustainability. Alizah Khan, Sustainability Executive at TDF MSC participated in the COP in My city programme and emerged as one of the six winners in the Sindh Regional Round.

We congratulate Alizah Khan on her achievement!

All the remarkable regional winners had an opportunity to participate in the COP in My City, National Finals held in Islamabad.

Lincoln Corner

In commemoration of COP28, Lincoln Corner Pakistan American Cultural Centre (PACC), in collaboration with TDF Nature Series, organized a series of workshops and documentary screening in December 2023, to raise awareness about Climate Change and its impact on the ecosystem and biodiversity.

The sessions were attended by school and university students, PACC members and general visitors.

The workshops successfully engaged over 250 participants, encouraging them to explore, understand, and contribute to initiatives that address the impact of climate change in Pakistan.



Sustainability Workshop

To raise awareness among primary level school children about environmental issues, the MSC Sustainability team designed and organized Sustainability Workshops at MSC in October 2023.

Students from grades 3 and 4 of the C.A.S. School participated in the Workshop and learnt about environmental challenges and their negative impact on the planet. Participants also gained knowledge about ways of reducing Carbon Footprint, as well as reusing and recycling to safeguard the environment.

We look forward to the young participants sharing this new knowledge with their families and friends to help them live a greener life.



Collaborations

UNDP Session - Sustainable Development



The role of private sector is critical to achieving Sustainable Development Goals (SDGs), by creating employment, building skills, encouraging innovation, providing essential infrastructure, and supplying affordable goods and services.

The UNDP SDGs Support Unit Sindh organized a workshop on 2nd November 2023, titled "Inspiring Action Toward SDGs with the Private Sector".

The workshop highlighted the need for the private sector to play a fundamental role to spur SDG aligned investments and generate the desired level of economic growth while capturing the benefits of sustainable development.

The event was attended by over 50 private sector organizations and Fatima Kanwal Qureshi, Sustainability Lead, MSC shared her views about climate change and the challenges facing our planet.

TDF MSC is committed to sustainability and sustainable development. The TDF Nature Series documentaries and exhibits at MSC encourage environmental education, and raise awareness about the importance of preserving natural habitats of Pakistan.

Other initiatives to reduce environmental impact at MSC include solar panels, rain and wastewater recycling system, as well as drip irrigation and much more.

The session concluded with the screening of a clip from Nature Series documentary, 'Mangroves: Custodians of the Coast', reinforcing the critical role of the ecosystem in our coastal regions.

Junior Internship

A dynamic, challenging, and rewarding experience for young learners

The MagnifiScience Centre offers a one-of-a-kind, Junior Internship Programme (JIP) for young learners, between the ages of 12 to 18 years. The programme provides experiential learning in various domains in the workplace environment.

The two-week winter Junior Internship Programme closed at a high, with 72 interns gaining practical work experience at the Science Centre.

"My experience at MSC has been very good in general, I got to learn a lot of new stuff, and hopefully there is more to come." - Abdul Moiz - Beacon House School

The interns, coming from a range of schools and diverse socio-economic backgrounds, worked in groups on projects about Exhibit Development, Research and Content Development, Design and Illustration, Marketing and Digital Media, Sustainability and Green Initiatives, Resource Mobilization and Fundraising, Information Technology, and Music.

Working with experienced leads, the interns applied their academic learning into business projects in a professional setting. Each group of Interns also worked on a STEM project, making their entire experience more holistic and interesting.



Weekend Programmes

MagnifiScience Centre offers a variety of ongoing teamed based weekend programmes for learners of all ages, and backgrounds. Our curriculum-linked programmes are relevant, engaging and accessible to everyone, and offer a platform for children to explore, learn, and experiment.

The 'Science of Food', workshops in October incorporated how to explore science with everyday food items, discover how food production contributes to carbon emissions and how to transform kitchen scraps into fresh produce by growing vegetables and herbs at home.

November included a sensory journey through 'Sound & Vibration', exploring the fascinating science of sound and music, experiencing how a loud and vibrating sound can splash water and how different levels of liquid can produce different musical expressions.

In December, participants learnt about 'Temperature' and unraveled mysteries of temperature, by experiencing how water density changes with temperature. In Thermo Adventures workshop participants explored heat, cold, and thermodynamics through fun experiments.





Host your event at the MagnifiScience Centre

The MagnifiScience Centre is a unique place to organize meetings, product launches, corporate or private events, family days, team building activities, receptions, award ceremonies, dinners, milestone celebrations and even concerts. Our staff of experts can help you design a fabulous occasion.

For more information email us at:
events@dawoodfoundation.org



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