

For Immediate Attention of the Media

April 21, 2014

National Museum of Emerging Science and Innovation (Miraikan)

**Newly opened Kids Space
“Curiosity Field”
Friday, June 13, 2014**

On Friday, June 13, the National Museum of Emerging Science and Innovation (Miraikan) will open “Curiosity Field”, a new area for families. This area is a free space where parents and children together can enjoy workshops and hands-on exhibits to learn about scientific perspectives. The field is full of things to pique the curiosity of children as they engage in physical activity. Children will be able to freely imagine solutions to the questions, and use objects available to test those solutions. Parents are able to play with their children, while also observing how their children think, talk, and deal with questions that arise.

The field is around 600 m², using blue, green and white tones. It is a wide and open space, and to enter with no shoe on. Workshops to encourage children’s creativity will be held, mainly on weekends. There will be hands-on kits appropriate for different age groups, so families can enjoy using craft kits made by volunteer staff or using experiment kits to experience cutting-edge technology developed in Miraikan research facilities. In partnership with “NHK for School” provided by NHK (Japan Broadcasting Corporation), various programs and digital on-line contents that are useful as learning resources for kids are providing in the area.



“Curiosity Field”

The space is also available for parents. With cameras installed at several locations throughout the field, parents can watch their children from different views at this space. With the availability of the Internet, it has become possible to quickly access information and answers. However, at Miraikan we believe the way of thinking acquired via the process of finding an answer is what leads to developing a scientific perspective, and will benefit children throughout their lives. A child’s development depends on interaction with a wide variety of generations, but changes in birthrates, sizes of immediate families and the playgrounds have lessened a child’s opportunities. This field will value human communication and create a place to develop children’s curiosity.

This area is supervised by Dr. Takayuki Shiose (Activity Science Advisor), who researches the nature of communication and is formerly of the Kyoto University Museum; Dr. Yoshifumi Nishida (Field Safety Supervisor), who researches engineering to prevent injury to children at the National Institute of Advanced Industrial Science and Technology Digital Human Research Center; and Mr. Arata Kurata (Management Advisor), who researches child-raising and child welfare at the Tokyo City University Faculty of Human Life Sciences Department of Child Studies. The opening event is planned with a family workshop on developing children’s curiosity, and a family event using Lego blocks based around the joy of creating.

■Overview■

Opens:	Friday, June 13, 2014
Opening Hours:	10:00 – 17:00 (Please enter at least 30 minutes before closing time.)
Closed:	Every Tuesday(except on holidays and during the spring, summer, and winter vacation seasons) and December 28 to January 1.
Admission Fees:	Free(Paid if one may visit in permanent exhibition)
Comprehensive Supervisor:	Dr. Takayuki Shiose: Associate Professor inThe Kyoto University Museum Dr. Yoshifumi Nishida: Digital Human Research Center, National Institute of Advanced Industrial Science and Technology Dr. Kurata Arata: Human Life Science, Tokyo City University
Planning and Production:	National Museum of Emerging Science and Innovation (Miraikan)

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[Exhibition Outline]

“Curiosity Field” is made of five activity areas for children to enjoy experiments and creating, as well as a space for parents. In the activity areas, children are able to experience digital content, hands-on displays and experiments meant to raise questions. Parents will have an area where they observe on what their child is interested in using live cameras.

1. Rolling Lawn

By dropping and rolling objects such as balls and feathers of different sizes, shapes and materials on a slope with artificial turf, a number of questions will be raised.

-Rolling: Children can roll balls of different shapes and materials, such as egg-shaped balls with super balls inside, to experience the difference.

-Dropping: Children can drop feathers of different sizes, colors and shapes and compare differences, such as the speeds they fall at. Objects that rotate as they fall, like ginkgo leaves, will also be prepared.



Rolling Lawn

2. Sketch Space

Children can draw freely in this area with walls and floors made of whiteboard. There will also be workshops and experiments with volunteers working specifically in this area. There are original tools available made with input from child members of Club Miraikan (Miraikan members club), which can be used to enjoy creating with.

-My Deep Sea Creature: What body types are appropriate for living in the deep sea? While learning about the deep sea environment, children get to make original creatures.

-Seed Designers: Plant seeds are full of features that aid survival. What kind of survival strategies can you think of? Children get to design original seeds.

-Picture Book Readings: Ideas from picture books will be taken and used for experiments from a scientific perspective while reading the books. For example, one may find out if overlapping blue and yellow make green, like in Leo Lionni's Little Blue and Little Yellow.



Sketch Space

3. Orb Track

By inserting sticks into a wall full of holes and using everyday items like hoses and cups to connect the sticks in a course, children can make a marble machine for rolling balls. What items make balls move through the course faster? There is no correct right answer. This is an area that allows free-form trial and error.



Drawing freely on walls

4. Shared Wonders

Wunderkammer is the German word for “room of wonder”. *Wunderkammer* exhibits collections of rare and interesting objects from around the world, and were precursors to museums. “Shared Wonders” uses videos to introduce fascinating works made by children. Works made by children are displayed on the monitor as digital data, so they can be shared while playing. This exhibit is handled by Team Lab (<http://www.team-lab.net/en/>), creators of digital media art and products.



Orb Track

5. Parents' Sight

In this area, parents can watch over their children from a distance. By remotely controlling several cameras, parents discover see aspects of their children, such as children's intent expressions while making a craft. Advisor Dr. Shiose's thoughts on developing children's curiosity are also introduced.



Parents' Sight

●Workshop produced by NHK for School

The workshops inspired by NHK famous programs, “Kangaroo Karasu” (Thinking Crow) and “Kiminara Nanitukuru” (What would like to make?), are introduced in the area. The goal for these workshops is to guide children to have special experiences in hands-on activity.

●Trying Kit Counter

Trying Kit Counter has a variety of different kits available to borrow. In addition to experiment kits and craft kits that encourage creativity, there are also kits that let children experience the cutting-edge technology being developed at Miraikan research facilities.



Trying Kit Counter

<Examples of Craft and Experiment Kits>

-Paper Cup Telephone Kit: Experience how the sound changes depending on the materials and decorations used and on how many receivers there are. This is an opportunity to learn about sound properties.

-Car Kit: Create a car that moves using a simple system. Experiment with different power sources, such as elastics, balloons, and fans.

<Examples of Cutting-Edge Science Kits Provided by Research Facilities>

-Tangible Information Environment Project: Children can create new tactile experiences using the TECHTILE toolkit, which makes it feel like you are touching something that is not there.

-Living Lab Tokyo Project: By equipping a ring-shaped device to stuffed toys, children will be able to move the toy's arms, legs and tails, or make them talk.



TECHTILE toolkit

*Related press releases and pictures can be downloaded from the Miraikan website.

URL: <http://www.miraikan.jst.go.jp/en/press/>