FOR IMMEDIATE RELEASE

ArtScience Museum unveils major new digital artworks at Future World
Exhibition features 19 cutting-edge digital art installations that explore art and science

SINGAPORE (27 February 2020) – Visitors to the highly popular FUTURE WORLD: Where Art Meets Science will be able to experience five exciting new digital artworks by teamLab from 14 March, as part of the latest redevelopment of the exhibition.

Future World was conceived as a permanent exhibition that challenges the conventional notion of art museums and how people experience art. Combining art, technology and science, Future World consists of a series of ever-changing, evolving environments, which visitors of all ages are invited to explore, and become part of. Since its launch in 2016, it has taken over two million visitors on a journey of discovery through four key zones – City in A Garden, Sanctuary, Park and Space.

Four new digital artworks by teamLab will be on display in the opening gallery of the exhibition, City in A Garden. They include the Southeast Asia debut of Proliferating Immense Life, A Whole Year per Year - a giant interactive mural of blooming flowers. The Sanctuary gallery will also feature a new version of Way of Birds, a stunning installation that explores the enigmatic movement of a flock of birds.

“ArtScience Museum is delighted to unveil a series of remarkable new artworks by teamLab in Future World. These new works beautifully embody teamLab's fluid combination of artistic expression, technological ingenuity, scientific inquiry and spellbinding visual appeal. The installations explore the impermanence of life, the cyclical qualities of the natural world, climate change, and Eastern philosophy. They show that teamLab's practice goes beyond the creation of playful works of interactivity. Their work can also have a profound emotional and philosophical impact on audiences. When we consider some of the urgent issues our societies face today, the ability to generate such an effect becomes highly significant,” said Honor Harger, Executive Director of ArtScience Museum.

“Future World was teamLab's first large-scale, permanent exhibition, challenging the conventional notion of art museums, how people experience art, as well as the art market itself. At ArtScience Museum, which encompasses teamLab's concepts of art and science, we will continue to create shared experiences of physical discovery with others, expanding people's values and their creativity,” said teamLab's spokesperson.
Stepping into the City in A Garden

The opening section of the exhibition – City in A Garden – is inspired by Singapore’s approach to nature in the urban environment. Singapore famously describes itself as a ‘city in a garden’, with flora and fauna being a fundamental component to the nation's identity. The City in A Garden section of Future World explores the idea of nature as something that includes, enfolds and embraces people, and the things they make.

From 14 March, City in A Garden will include four new artworks, including the Southeast Asia debut of Proliferating Immense Life, A Whole Year per Year.

Proliferating Immense Life - A Whole Year per Year
2020
Interactive Digital Installation
Artwork by teamLab, Sound by Hideaki Takahashi

This new installation by teamLab depicts flowers that gently bloom and die in tune with the four seasons of the year, in real time. They bud, grow, and blossom, before their petals begin to wither and eventually fade away. The artwork is both generative, in that the flowers are created live algorithmically, and reactive, in that they respond to the presence of visitors, and subtly change, based on what they do. When touched, the flower petals scatter and disappear. But if visitors stay still, the flowers grow and bloom more abundantly.

The artwork is not a pre-recorded image that is played back with the gallery. It is created live by a computer programme, written by teamLab that continuously renders the artwork. The interaction between visitors and the installation causes continuous change. Just like in nature, previous visual states can never be replicated and will never reoccur. The picture the visitors observe in the gallery when they visit can never be seen again.
Press Release

100 Years Sea [running time: 100 years]
2009
Digital Work, 5 Channels, 100 Years
Artwork by teamLab

100 Years Sea is a video work with a running time of 100 years. In this work, teamLab artfully visualises the rising sea levels brought about by climate change. The artwork is based on scientific data derived from the World Wide Fund for Nature (WWF), which predicts the rising of the world’s sea levels over the next century.

100 Years Sea combines the elegance and beauty of traditional Japanese art with contemporary scientific data. It painstakingly illustrates rising sea levels in real-time. From our vantage point in 2020, we can see that the water level is rising slowly but steadily, drawing attention to the impact that climate change is already having on our oceans. The numbers presented alongside video represent the elapsed time, reminding us of the potentially catastrophic change in our oceans, should urgent action not be taken now. The artwork asks the question - will the sea-level rise be more or less severe than what WWF predicted?

Impermanent Life, at the Confluence of Spacetime New Space and Time is Born
2018
Digital Work, 4 Channels, Continuous Loop
Artwork by teamLab
This artwork depicts the cycle of life and death in perpetuity. The four-channel monitor installation portrays cherry blossoms, which bloom and scatter. In the background, a circle is born that grows and spreads out radially, transforming the light and darkness of the world in which it exists. The artwork encourages a meditation of the impermanence of life.

*Enso - Cold Light*
2018
Digital Work, Single Channel, Continuous Loop
Artwork by teamLab

An ensō is created through the Zen practice of drawing a circle in a single brushstroke. It is said to symbolise enlightenment, the universe and equality. teamLab have brought the ensō into the 21st century with a digital version that glides into existence before slowly dissolving into nothingness. In the Buddhist tradition monks were often taught this style of ink painting as a type of meditative practice. When the mind is still the monk takes up a brush and, in a single stroke, attempts to paint a perfect circle. Whilst perfection is almost impossible to achieve, this artistic expression of zero, or nothingness, stimulates deep contemplation. The circle in *Enso - Cold Light* reflects the hearts and minds of those who view it, with its interpretation left to the individual.

The artwork is an example of what teamLab describe as ‘spatial calligraphy’, an artistic style they have been working on since the collective first formed. It is a contemporary interpretation of traditional calligraphy which situates calligraphy in three-dimensional space, expressing the depth, speed and power of the brush stroke.

*Sanctuary – An oasis of calm*

*Sanctuary* was designed as a quiet haven for *Future World*’s visitors to reflect and meditate, away from the bustling atmosphere of *City in A Garden*. It serves as an oasis of calm before visitors bask in the joviality of *Park. The Way of the Birds* is the second artwork to be showcased at *Sanctuary*. 
The movement of a flock of birds is beautiful and mysterious, like a single large life form. The flock has neither a leader nor mutual consensus. It moves based on the simple idea that ‘if my neighbour moves, then I move, too’. The biological mechanism that causes a flock of birds to move in synchronicity is still enigmatic. There seems to be a universal principle that human beings do not yet understand.

In this installation, the flock of birds responds to the visitors’ presence as they fly. The birds leave behind a trail of light as they fly through the space, dissolving the boundaries between the artwork and visitor. The installation is rendered in real time by a computer program, and - mirroring the birds it represents – is in a constant state of change.

Please refer to the appendix below for the exhibition floor plan and the full list of artworks in each gallery of Future World.

To facilitate the introduction of new artworks, City in A Garden and Sanctuary will be closed temporarily from 2 to 13 March. Revised ticket prices to Future World will be offered to all guests during the period. The refreshed Future World will welcome visitors from 14 March onwards.

Tickets to Future World are available for purchase from all Marina Bay Sands box offices and website. Terms and Conditions apply.
Ticket prices as follows:

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<th>STANDARD TICKET (SGD)</th>
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For more information, please visit https://www.marinabaysands.com/museum.html.

About Marina Bay Sands Pte Ltd
Marina Bay Sands is the leading business, leisure and entertainment destination in Asia. It features large and flexible convention and exhibition facilities, more than 2,500 hotel rooms and suites, the rooftop Sands SkyPark, the best shopping mall in Asia, world-class celebrity chef restaurants, a theatre and an outdoor event plaza. Completing the line-up of attractions is ArtScience Museum at Marina Bay Sands which plays host to permanent and marquee exhibitions. For more information, please visit www.marinabaysands.com.

About ArtScience Museum
ArtScience Museum is a major cultural institution in Singapore that explores the intersection between art, science, technology and culture. It is the cultural component of Marina Bay Sands. Since its opening in February 2011, ArtScience Museum has staged large-scale exhibitions by some of the world’s major artists, including Leonardo da Vinci, M.C. Escher, Salvador Dalí, Andy Warhol and Vincent Van Gogh, as well as exhibitions that explore aspects of science and technology – including particle physics, big data, robotics, palaeontology, marine biology and space science. For more information, please visit www.marinabaysands.com/museum.html

About teamLab
teamLab (f. 2001) is an international art collective, an interdisciplinary group of various specialists such as artists, programmers, engineers, CG animators, mathematicians and architects whose collaborative practice seeks to navigate the confluence of art, science, technology, and the natural world.

teamLab aims to explore the relationship between the self and the world and new perceptions through art. In order to understand the world around them, people separate it into independent entities with perceived boundaries between them. teamLab seeks to transcend these boundaries in our perception of the world, of the relationship between the self and the world, and of the continuity of time. Everything exists in a long, fragile yet miraculous, borderless continuity of life.

teamLab: https://www.teamlab.art/
Instagram: https://instagram.com/teamlab/
facebook: https://www.facebook.com/teamLab.inc
twitter: https://twitter.com/teamLab_net
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For hi-res images, please click here.
(Photo credit lines are as per indicated in the photo captions)
Appendix

Featuring 19 specially selected cutting-edge digital art installations by teamLab, *Future World* takes visitors on a journey of discovery through four key narratives – *City in A Garden*, *Sanctuary*, *Park* and *Space*.

Chapter 1: City in A Garden

**Universe of Water Particles, Transcending Boundaries;**
*teamLab*, 2017, Interactive Digital Installation, Sound: *Hideaki Takahashi*

**Flowers and People, Cannot be Controlled but Live Together - Transcending Boundaries, A Whole Year per Hour;**
*teamLab*, 2017, Interactive Digital Installation, Sound: *Hideaki Takahashi*

**Flutter of Butterflies Beyond Borders, Ephemeral Life Born from People;**
*teamLab*, 2018, Interactive Digital Installation, *Endless*

**The Void;**
*teamLab*, 2016, Digital Work, 4 channels

Visitors will be greeted by a stunning six-metre high interactive waterfall that serenely cascades down the wall and onto the floor when they enter the space. The water particles are digitally programmed and generated to produce an accurate water fall simulation of water particles. The direction of the water changes with the lightest touch.

Also in the gallery is an ecosystem of flowers that gently bloom and die. The lifecycle repeats itself and visitors can experience all four seasons of the year within an hour. A kaleidoscope of butterflies...
**Press Release**

| (New addition) Impermanent Life, at the Confluence of Spacetime New Space and Time is Born; | fluttering around the space grows in number as more people enter the room. But they die when touched, serving as a reminder of the destructive side to humanity. |
| teamLab, 2018, Digital Work, 4 channels, Continuous Loop | |

| (New addition) Enso - Cold Light; | |
| teamLab, 2018, Digital Work, Single channel, Continuous Loop | |

| (New addition) 100 Years Sea [running time: 100 years] | In 100 Years Sea [running time: 100 years], teamLab artfully visualises the rising sea levels brought by climate change. This work is based on scientific data derived from the World Wide Fund for Nature (WWF), which predicts the rising of the world’s sea levels over the next century. This artwork combines the elegance and beauty of traditional Japanese art with contemporary scientific data. It painstakingly illustrates the prediction of the rising sea level in real-time, |
| teamLab, 2009, Digital Work, 5 channels, 100 years | |
Press Release

| **Sliding through the Fruit Field**  
| teamLab, 2016-, Interactive Digital Installation | Sliding through the Fruit Field is a playful artwork that is projected onto a slide.  
| | Visitors become a beam of life-giving sunlight, and as they glide down the slope, their energy is transferred to the fruit field, causing flowers and fruit to blossom and grow. As the different elements interact in the field, new seeds are sown, leading to new life. |

| **(New addition) Proliferating Immense Life, A Whole Year per Year**  
| teamLab, (2020), Interactive Digital Installation, Sound: Hideaki Takahashi | Proliferating Immense Life, A Whole Year per Year depicts an ecosystem of flowers which gently bloom and die in tune with the four seasons of the year, in real time.  
| | The artwork is both generative, in that the flowers are created live algorithmically, and reactive, in that they respond to the presence of visitors, and subtly change, based |
on their behaviour. When touched, the flower petals scatter, wither and disappear. But if visitors stay still, the flowers grow and bloom more abundantly.

The artwork is not a pre-recorded image that is played back with the gallery. It is created live by a computer programme, written by the artists, that continuously renders the artwork. The interaction between visitors and the installation causes continuous change. Just like in nature, previous visual states can never be replicated and will never reoccur. The picture you see at this moment can never be seen again.

**Invert Globe, Giant Connecting Block Town, teamLab, 2018, Interactive Digital Installation, Sound: Hideaki Takahashi**

Visitors are encouraged to work together to design their own transportation network in this interactive artwork. Giant building blocks, representing various urban infrastructures, are used to create roads, railways and rivers. Blocks of the same shape and colour placed near one another will automatically connect the elements together. Cars, airplanes, boats and helicopters bring life to the network. As more blocks are connected, the space becomes busier, ultimately developing a bustling cityscape, as projected on an overhead screen in real time.
### Sketch Aquarium
*teamLab, 2013-*, Interactive Digital Installation, Sound: Hideaki Takahashi

A favourite among children, this installation features a digitally rendered aquatic world where the two-dimensional sea creatures that visitors colour on paper come to life in a virtual ocean. The artwork grows and evolves constantly with the different images that the visitors add. Visitors can feed the fish and sea creatures by touching specific images of fish food bags on the screen. In *Sketch Aquarium*, individual creative processes become part of a unified, shared experience.

![Sketch Aquarium](image)

### A Table where Little People Live
*teamLab, 2013-*, Interactive Digital Installation

*A Table where Little People Live* is a miniature community, which comes to life as visitors play with its inhabitants. Visitors can place objects on the table, and change the behaviour of the little people. As each object is introduced, the movements of the little people change; they interact with the objects by jumping, climbing, and sliding onto them.

![A Table where Little People Live](image)

### Sketch Piston – Playing Music
*teamLab, 2015*

In this interactive artwork, you work together to create music by interacting with the screens. By selecting from the different symbols from the bottom of the screen and drawing lines, the different actions we make result in a symphony of sounds. The height at which the lines are
drawn determines the musical scale, encouraging both adults and children to cooperate and inspire one another to create music in a shared space. The more lines drawn and the more symbols chosen, the more vibrant, animated and lively the environment becomes.

Chapter 2: Sanctuary

The Sanctuary section of Future World allows for reflection and meditation, away from the bustling activities in City in a Garden, and before setting off for the noisy joviality of Park. Sanctuary acts as an oasis of calm in the centre of Future World.

(New addition) The Way of Birds
teamLab, 2020 Interactive Digital Installation, Endless Artwork by teamLab, Sound by Hideaki Takahashi

The movement of a flock of birds is beautiful and mysterious, like a single large life form. The flock has neither a leader nor mutual consensus. It moves based on the simple idea that ‘if my neighbour moves, then I move, too’. The biological mechanism that causes a flock of birds to move in synchronicity is still enigmatic. There seems to be a universal principle that human beings do not yet understand.

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The four artworks in *Park* – *Sketch Town*, *Story of the Time when Gods were Everywhere*, *Light Ball Orchestra* and *Create! Hopscotch for Geniuses* – represent various manifestations of recreation avenues for people.

**Sketch Town**

*teamLab, 2014-*, Interactive Digital Installation, Sound: Hideaki Takahashi

This installation is a depiction of a fictitious town based on Singapore that includes recognisable landmarks such as Marina Bay Sands, ArtScience Museum, the Merlion and the Singapore Flyer. Participants colour in and add drawings of buildings, cars, spaceships and even UFOs. When the two-dimensional pictures are placed on the scanner, they enter the town becoming 3-D animated objects, bringing the town to life.

**Story of the Time when Gods were Everywhere**

*Sisyu + teamLab, 2013-*, Interactive Digital Installation, Calligraphy: Sisyu, Sound: Hideaki Takahashi

*Story of the Time when Gods were Everywhere* is a mesmerising digital projection of hieroglyph symbols cascading from ceiling to floor. Activated by touch, these characters will transform into nature motifs associated with the meanings of the characters. These motifs include wind, rain, trees and mountain. As the viewers continue to interact with the motifs, the artwork will transform to reflect an ever-changing landscape.
Light Ball Orchestra
teamLab, 2013–, Interactive Installation, Sound: teamLab

A fun and delightful installation, *Light Ball Orchestra* blends vivid lights with beautiful music together to create an orchestra of colours and sounds that change constantly. Children can experiment with creating their own music freely as they run and play among a multitude of light balls, changing their sounds and colours as they touch them, creating a rippling change in the audio-visual dynamics of the space.

Create! Hopscotch for Geniuses
teamLab, 2015–, Interactive Digital Installation, Sound: teamLab

Create your own game of hopscotch by arranging different shapes on a tablet, which are then projected onto the floor. As you make your way through the course, a variety of light and sound effects are triggered. The effects become increasingly more vibrant as your accuracy improves.
Chapter 4: Space

The journey through the exhibition ends by embarking outward and upward into astronomical space. Thanks to extraordinary advances in technology and radical new theories, we are now living through a golden age of discovery in astronomy.

Crystal Universe

*teamLab, 2015, Interactive Installation of Light Sculpture, LED, Endless, Sound: teamLab*

The final chapter of the exhibition puts viewers at the heart of the Universe, enabling them to experience astrophysical phenomena such as planets, stars, galaxies, and even the very recently detected gravitational waves, which Einstein predicted would exist a century ago. Utilising teamLab’s Interactive 4-D Vision technology, this artwork allows users to affect thousands of LED lights to give the illusion of stars moving in space. Experiencing the Universe from within, the spatial environment will respond to the presence of the visitors, helping them understand themselves as part of the vastness of celestial space.