EUREKA!
the national children's museum

Spark Gallery

Gallery Guide

What is the Spark gallery?

Our new Spark gallery, which opened in 2017, is different from the other galleries we have at Eureka! It's interactive (just like everything else) but hosts **temporary exhibitions** that showcase the most exciting and creative digital technology from around the world.

The changing programme of exhibitions challenges pupils to **think differently about art** and how they interact with the **digital world**. It will encourage your class to be creative in new and unexpected ways. Suitable for all Primary phases, the exhibitions in our Spark gallery introduce pupils to the **computing curricular** in a way that is mesmerizing and awe-inspiring.

Fusion: Adventures in Digital Art

This latest tech takeover of our Spark gallery is an **immersive exhibition** which brings together some of the world's best digital art for the very first time. Fusion: Adventures in Digital Art features 14 **hands-on digital exhibits** by 10 international artists – each finalists or winners of the Lumen Prize for Digital Art. Fusion is here for a **limited time only** until November 2018 so visit while you can!

The Lumen Prize for Digital Art celebrates the very best art being created with technology through a worldwide competition, exhibitions and events. Pupils will be able to **explore virtual worlds**, create their own **animated creature**, and interact with a huge **digital painting**.

To get an idea of the exhibition, watch our video on our YouTube channel: **www.youtube.com/EurekaMuseum**

Accessibility

Fusion is accessible for visitors with physical mobility impairment, and is full of sounds, lights, images and movement. If you have sensory sensitivities, you might find the environment a little overwhelming. There is accessibility information in this document and we have also created an accessibility guide which is available on our website.

What will the Spark Gallery provide for your class?

Spark gallery is all about learning through collaborative discovery, open exploration and play because we know that children learn best when they are engaged, curious and having fun.

Fusion: Adventures in Digital Art is designed to stimulate imaginations, inspire and unlock creative potential. Children will gain cross-curricular knowledge whilst interacting with a range of new technology and interactive multi-media installations.

It allows children to develop skills across many areas of the curriculum including computing, maths, art, music and creativity, as well the all-important cross-curricular skills of problem-solving and systems thinking (how changing one element affects relationships as a whole).

Fusion is not about art that you stand back and admire but is totally in keeping with our ethos of engaging and challenging children whilst also ensuring visitors learn and play together through shared experiences. These shared playful opportunities foster wellbeing for children of all ages. The exhibition is suited to all Primary phases, and also links to the EYFS, particularly their Personal Development and Social Development.

Audiograph

Control an interactive clock projected on the wall using your body and voice.

What: This exhibit detects and visualises sounds, combining the senses of hearing and seeing as well as showing the time.

How: The sound waves you make via a microphone are recorded in real-time and represented as the second hand of a clock. Interact with the exhibit by talking, clapping, and singing into the microphone and see how the sound vibrations alter the second hand.

Further Info: This exhibit picks up any sounds you make, and uses bright lights. Visitors may make loud noises as they use this exhibit.

Artist: Nathan Selikoff, USA
www.nathanselikoff.com
Nathan is an award-winning artist who has exhibited across the world. He is inspired by science, nature and music and his work combines computer code, traditional materials and technology to bring new ideas to life.

The Garden of Earthly Delights

Move and dance in front of an immersive floor-to-ceiling projection of a garden, see yourself projected onto the screen and notice how it changes.

What: This exhibit creates a moving, large-scale digital artwork that you can interact with and change. A small group of children can play with this exhibit at the same time.

How: Your moving image is captured, multiplied and projected into an image of a garden using a Kinect sensor. Interact with the digital garden and change the image by squeezing the touch-sensitive leaves on the sofa and see what you can create.

Further Info: This exhibit includes infrequent, randomly generated animal-like noises, bright lights and colour.

Artist: Laura Dekker, UK
Laura explores the impact of technology on our world and how we experience it. This work aims to engage your senses with the digital world and the real world, mixing them together to create something more.

Microworlds

Interact with a range of different exhibits that are all interlinked as you make your own digital animations inspired by natural ecosystems.

What: Each of the five interactive digital artworks is connected through a series of webcams so as you play on each exhibit this affects what is happening on another installation.

How: Have a go on each exhibit and make your own digital creatures and see if you can keep them alive:

- Take a photo of your face using the webcam and create your own digital creature and watch it search for food on the big screen.
- Move and make different shapes with your body and see your silhouette multiplied across the big screen in a variety of patterns.
- Choose the same colour as your creature to make it grow bigger.
- Choose from different patterns and draw coloured pixels on the screen and see it projected on to the wall.
- Design your own creature on the screen using lines, dots, and graphics and send it to the big screen.
- A live webcam records the gallery space as you move around the different exhibits and the digital creatures eat and destroy the image.

Further Info: There are bright coloured lights and large moving images projected onto each wall that can flicker and change quickly.

Artist's details
Genetic Moo, UK
www.geneticmoo.com
Genetic Moo is a collaboration between artists Nicola Schauerman and Tim Pickup. They use digital technology to create living installations in pixels and light. You can interact with their fantastical creatures or immerse yourself in their ever changing digital ecosystems that they call Microworlds.

Passage

Move your body and watch as the shape your body makes is scanned and projected on to the wall in 3D pixels.

What: This interactive installation scans each individual creating a unique image and sound that appears for a few seconds before disappearing.

How: Make a shape with your body in front of the scanner and see your 3D pixel image appear and listen to your sound imprint. Watch as the pixels fall to the ground and disappear and have another go.

Artist: Bonjour Interactive Lab, France
www.bonjour-lab.com
Bonjour Interactive Lab is a digital creation studio that combines art and technology. They create work that explore new ways of interacting and experiencing using the latest digital technology.

Abstract Playground 1-3

Press the buttons to move colourful building blocks and create different images and music.

What: This exhibit includes three separate screens and interactive consoles each with slightly different images and sounds for you to play with and control.

How: Press the different buttons and see how they change the musical building blocks and make a different sound. Mix the ever-changing sounds to create your own chaotic piece of music.

Further Info: Created together with people with learning disabilities, the consoles cater for people with a wide range of motor skills. Each of the three screens has unique loud sounds and brightly coloured, constantly moving graphics.

Artist: Will Hurt, UK
www.willhurt.net
Will creates interactive software and animations that are inspired by diagrams and architecture of buildings to engage people in the creation of environments.

Line Wobbler

Test your hand-eye coordination controlling LED light in this award-winning experiment in minimalist game design.

What: This game is for three players, and you use a joystick to push your green light dot to the top of the line of light.

How: Push the joystick to make your line travel up to the end of the track above your head. Wobble the joystick to push past through the red enemies. Wait for the orange lava to disappear before going through it. Race your friends to the top first.

Artist: Robin Baumgarten, Germany
www.wobblylabs.com
Robin is a London-based independent game developer who experiments in older games and how they affect game design.

Murmur

Use your voice to change the projections of light and colour on a large interactive wall.

What: This exhibit translates the sounds you make and changes them into colourful patterns and shapes.

How: Speak or sing into the microphone and watch the sound change into light and travel down the illuminated tube to create a colourful explosion on the wall. The image changes as you vary the tone, pitch and volume of your voice.

Further Info: This exhibit picks up any sounds you make, and loud noises make the lights brighter. Visitors may make loud noises as they use this exhibit.

Artist: Chevalvert, France
www.chevalvert.fr/?lang=en
Chevalvert is a visual design studio based in Paris, France where multiple artists, graphic designers and web developers all contribute to large art installations and other pieces of work.

Flora

Get creative and use a tablet to control the shapes and patterns of animated plants projected on the wall.

What: This interactive installation uses moving lines of white light controlled by a tablet which enables you to create complex and delicate shapes that resemble plants.

How: Use the touchpad to control the animation projected on the wall and create your own patterns to make a unique plant design.

Further Info: If the stands holding the tablets are too high to reach, ask an Enabler for a hand-held touchpad.

Artist: Philipp Artus, Germany
www.philippartus.com
Philipp is an artist and filmmaker based in Berlin and his animations, light installations and drawings explore life through movement, sound and imagery.

The Wave

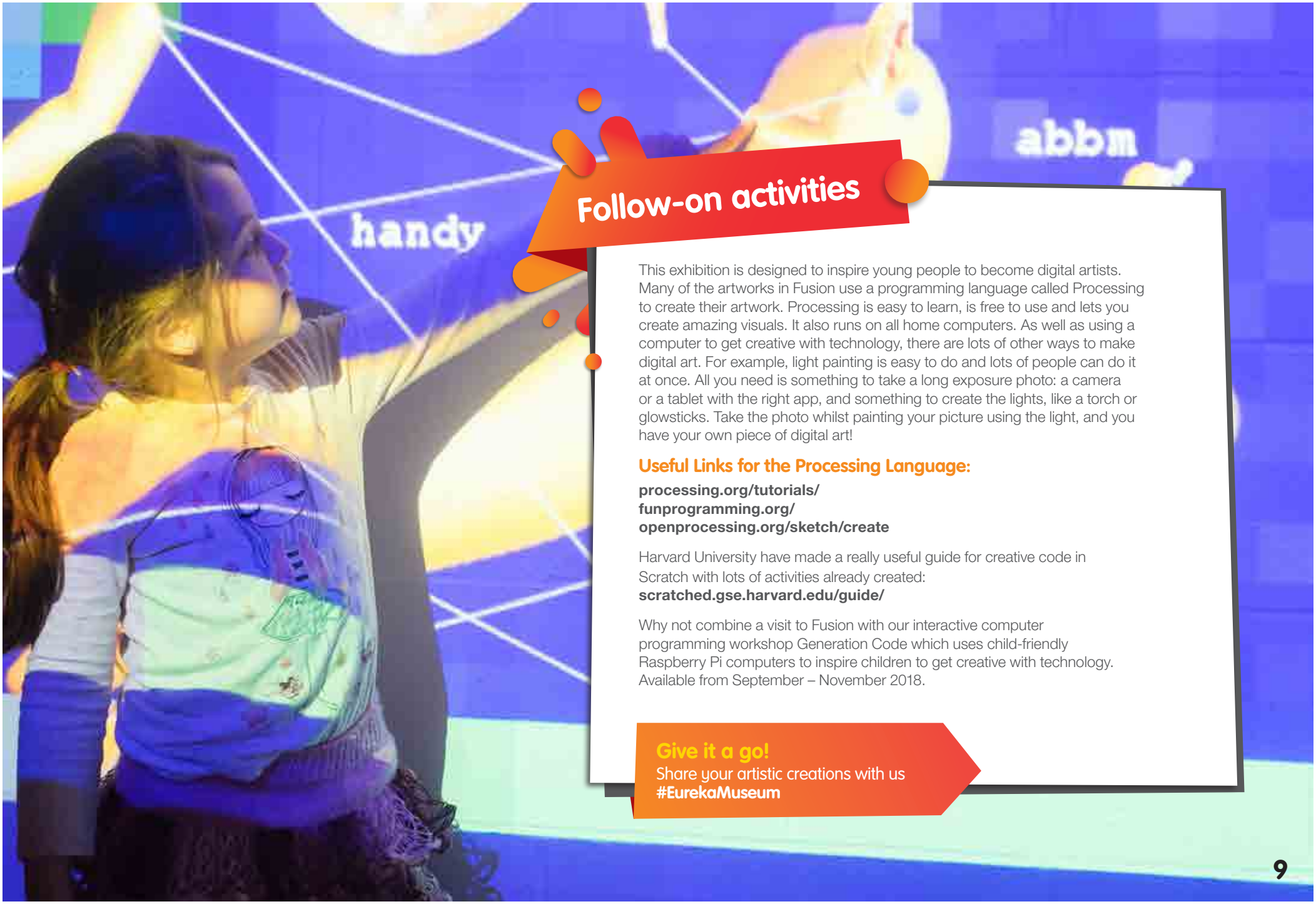
Interact with large touch-screen monitors and guide the digital waterfall across the screen.

What: An immersive exhibit inspired by the famous Japanese print The Great Wave off Kanagawa, which enables you to control a digital waterfall.

How: Gently touch the screens and change the direction of the digital particles to create a digital wave. How many shapes can you create?

Further info: You can interact with the screen with any part of your body and through light clothing.

Artist: Marpi and Jaume Sanchez Elias, USA & UK
www.clicktorelease.com
Marpi and Jaume Sanchez Elias create artworks that are interactive and multiplatform, giving anyone the ability to shape and create their own versions.



Follow-on activities

This exhibition is designed to inspire young people to become digital artists. Many of the artworks in Fusion use a programming language called Processing to create their artwork. Processing is easy to learn, is free to use and lets you create amazing visuals. It also runs on all home computers. As well as using a computer to get creative with technology, there are lots of other ways to make digital art. For example, light painting is easy to do and lots of people can do it at once. All you need is something to take a long exposure photo: a camera or a tablet with the right app, and something to create the lights, like a torch or glowsticks. Take the photo whilst painting your picture using the light, and you have your own piece of digital art!

Useful Links for the Processing Language:

processing.org/tutorials/
funprogramming.org/
openprocessing.org/sketch/create

Harvard University have made a really useful guide for creative code in Scratch with lots of activities already created:
scratched.gse.harvard.edu/guide/

Why not combine a visit to Fusion with our interactive computer programming workshop Generation Code which uses child-friendly Raspberry Pi computers to inspire children to get creative with technology. Available from September – November 2018.

Give it a go!
Share your artistic creations with us
#EurekaMuseum