

 **EDINBURGH
SCIENCE
FESTIVAL**

 **CIRRUS LOGIC®**

9-24 APRIL 2022



ONLINE BOOKING: SCIENCEFESTIVAL.CO.UK

BOOKING HOTLINE: 0131 226 0005

2022 FESTIVAL SUPPORTERS

HEADLINE SPONSOR



PRINCIPAL FUNDING PARTNERS



MAJOR FUNDING PARTNERS



FUNDING PARTNERS



BEER PARTNER



HOSPITALITY PARTNER



VENUE AND PROGRAMMING PARTNERS



EDI
NBU
RGH

SCIENCE

WELCOME TO THE
REVOLUTION

FESTIVAL



2022 is very much a year of transition and recovery for us as we emerge from the challenges of the past few years.

In the year that sees the 75th anniversary of Edinburgh's birth as a world leading festival city, we're delighted to get back to doing what we love most – delivering live events. This includes a return to our family hub at City Art Centre and two major new interactive exhibitions, alongside a vibrant and varied programme of other events for audiences of all ages in collaboration with our network of amazing partners.

Our *Revolutions* theme celebrates the fact that it is 50 years since James Lovelock first referred to his revolutionary Gaia hypothesis in print – drawing public attention to the interconnectedness of the delicate ecological cycles essential to sustaining life on Earth.

Focusing on everything from personal to planetary health – and with an unashamed emphasis on the urgency of tackling the climate crisis – the 2022 Festival will explore lifeforms, lifecycles, revolutionary ideas and solutions to global challenges.

Revolutions in science and ideas – the turning of the circle to reveal new knowledge and understanding – have given us the scientific, industrial and now climate and data revolutions, each increasing our understanding of the Universe and our place in it. We'll be exploring these in our two new interactive exhibitions, *Consumed* and *DataSphere*, and through our wider programme of *Big Ideas* talks and discussions, workshops and special sociable science events.

This year's Festival acts as a heartfelt call for a truly radical shift in the attitudes and behaviours of individuals, organisations and nations to combat the climate crisis and protect the delicately interconnected lifecycles of our planet. By embracing circular economies to ensure a successful and sustainable future EdSciFest 2022 aims to show how circular thinking can sometimes be a GOOD thing!

Join us this April for what promises to be a joyful celebration of the role that science and technology and festivals play in our lives – bringing people together, creating new experiences, sharing the joy of discovery, shedding fresh light on the key issues shaping that future and celebrating the human spirit – and let the good times roll!

A handwritten signature in black ink that reads "Amanda Tyndall".

Amanda Tyndall
Festival and Creative Director

FESTIVAL INFORMATION

BOOKING

sciencefestival.co.uk

If you experience any issues while attempting to make an online booking, please email the Box Office at boxoffice@scifest.co.uk.

0131 226 0005

Thursday 24 February–Friday 1 April
10.30am–5.30pm (Monday–Friday)
Saturday 2–Sunday 24 April
8.30am–6pm (Monday–Saturday)
11am–4pm (Sunday)

DISCOUNTS

EARLY BIRD

Save £2 per ticket on our *Big Ideas* events [pg.24–30] at the National Museum of Scotland if booked before Sunday 13 March. Call the box office or book online using the code EARLYBIRD22.

ADULTS GO FREE TO CITY ART CENTRE AT EASTER

Book a Child Day Pass and receive free adult entry on Friday 15, Saturday 16 and Monday 18 April. Call Box Office or book online – simply add a Child Day Pass and an Adult Day Pass to your basket and use the promo code EASTEREGG22.

GROUPS

We welcome groups and discounts may be available depending on the event and the size of the party. Please call the Box Office on 0131 226 0005 to discuss your needs.

BABES IN ARMS

Children under three years old do not require a ticket for events, except if the event is specifically for children under three years old.

CONCESSIONS


Unless otherwise stated, concessions are available to pensioners, the unemployed and disabled persons, with a complimentary ticket available for carers, which can be booked by phone or in person at our Box Office.

REFUNDS

All Science Festival tickets are non-refundable, except in the event of a cancellation or a positive Covid test.

VENUE FACILITIES

On each venue page you'll find the following symbols which indicate the facilities available:

-  Wheelchair access throughout
-  Elevator
-  Ramp access
-  Level access throughout
-  Accessible toilet
-  Changing places toilet
-  Lowered counters
-  Hearing loop
-  Exhibition transcripts
-  Assistant dogs welcome
-  Low lighting
-  Cafe
-  Bar
-  Packed lunch area
-  Water available
-  Cloakroom
-  Buggy park
-  Baby changing
-  Parking
-  Mobility scooters and wheelchairs available to book in advance

SENSORY BACKPACKS

Sensory backpacks have been created to help provide a more enjoyable experience for people who may have sensory processing conditions, autism, or anyone wanting extra support. They are available free of charge from the City Art Centre ticketing desk.

For any questions regarding accessibility, please call the Box Office on 0131 226 0005 or email boxoffice@scifest.co.uk.

COVID SAFETY

Edinburgh Science and all our Festival partners are committed to ensuring a Covid-safe environment at all of our events. We're working closely with the Scottish Government, City of Edinburgh Council and other relevant authorities to ensure we're following all Covid guidelines to keep all visitors and staff safe.

TAKE THE CARBON FOOTPRINT CHALLENGE AND WIN!

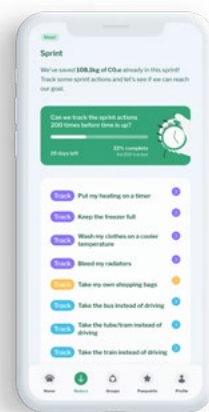
It has never been more important to take steps to reduce our carbon footprint, and this year we're running a Carbon Footprint Challenge from Saturday 26 March to get your help in reducing the Festival's climate emissions. There's even the chance to win a prize!

We're using carbon tracking app *Pawprint* to empower you to identify the eco-actions that you can take throughout your time at the Festival and beyond! Join us on our carbon-saving journey together.

1. Scan this code to download the Pawprint mobile app



2. Tap the 'Groups' icon, scroll down to 'Join an existing group' and search for 'EdSciFest2022'
3. Within the group are suggested eco-actions to try during the EdSciFest Eco-Sprint. Track the ones you do to bank your carbon saving!



4. Head over to our Instagram @EdSciFest from Saturday 26 March to find out how you can win!



Edinburgh
Festival
City.com

Pawprint
eco companion



FESTIVAL AT A GLANCE

PAGE LOCATIONS

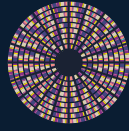
6-9 CITY ART CENTRE

During the Festival we transform Edinburgh's City Art Centre into a science playground full of workshops and interactive events to keep the kids entertained all day long! Adults can join in with the fun after hours at *Science Festival Late*.



10-13 NATIONAL MUSEUM OF SCOTLAND

Visit the National Museum of Scotland for free drop-in activities, workshops, and our *DataSphere* exhibition. Enter the *CyberZone* to make apps, music and video games and pick up some digital skills along the way.



14-15 DYNAMIC EARTH

Dive in and discover the deep at Dynamic Earth, with exhibitions, events and experiences that can be enjoyed by families and adults alike.



16-17 ROYAL BOTANIC GARDEN EDINBURGH

Visit the Royal Botanic Garden Edinburgh for interactive family activities, exhibitions for all ages and discussions for adults and young people.



18 EDINBURGH ZOO

Visit the Edinburgh Zoo to learn about the animals in their collection and some prehistoric beasts long since extinct. With special activities and tours available for the Easter holidays.



19 EDSCIFEST ON DEMAND

Enjoy our best discussions and fun activities from the comfort of your own home. For the armchair scientists of all ages, we've got you covered.



20-23 OOT AND ABOOT

Enjoy Science Festival events all over the city and in some of Scotland's picturesque coastal towns. From self guided tours to interactive workshops, enjoy the ultimate science day out - right on your doorstep!



EVENT TYPES

24-30 BIG IDEAS

Our programme of talks and discussions will inspire ideas, inspire debate, and most importantly inspire hope. Join our experts as they discuss the climate revolution, conservation, artificial intelligence, technology and the importance of storytelling.



31-35 EXHIBITIONS AND FILM

From open air exhibitions to underwater films, there is a wealth of sci-art to dazzle your eyes and challenge your views. Includes *Bioverse* at Summerhall.



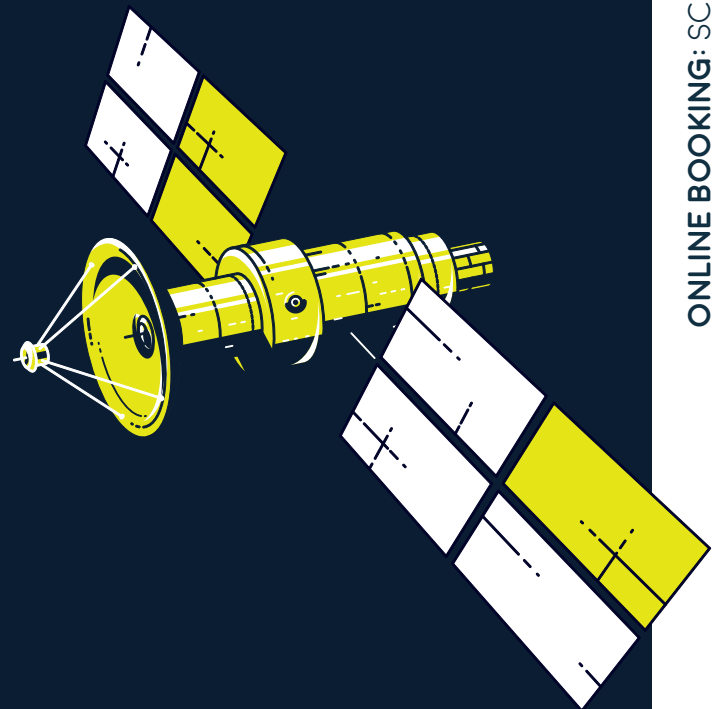
36-37 SOCIABLE SCIENCE

Combining storytelling, comedy and interactive elements, our science cabarets are a guaranteed great night out. Don't miss *Science Festival Late* - back by popular demand!



ADULT EVENT TIMELINE

DATE	TIME	EVENT	PAGE	
07 APR	7.30PM	SCIENCE FESTIVAL LATE	36	
09 APR	1PM	G-LANDS: AN OUT OF BODY EXPERIENCE, ARTIST TALK	24	
	2.30PM	BLACK BOX, ARTIST TALK	24	
10 APR	6PM	TAM DALYELL PRIZE LECTURE	24	
11 APR	6PM	CLIMATE CHANGE: A TIME TRAVEL ADVENTURE	24	
	8PM	SCOTLAND'S EINSTEIN	25	
12 APR	6PM	GAIA AT 50	25	
	6PM	COMMUNITY ACTION AGAINST CLIMATE CHANGE	25	
13 APR	6PM	CIRCULAR CITIES	26	
	8PM	PHENOMENAL FUNGI	36	
	8PM	A.C. GRAYLING - FOR THE GOOD OF THE WORLD	26	
14 APR	6PM	HOW ROBOTS WILL HELP US IN THE FUTURE	26	
	7PM	UNDER PRESSURE: THE OCEAN SHOW PLANETARIUM LATE	33	
	8PM	THE MATERIAL WORLD	37	
15 APR	8PM	TICKETS TO THE ARK	26	
	7PM	UNDER PRESSURE: THE OCEAN SHOW PLANETARIUM LATE	33	
	8PM	CLIMATE COCKTAILS	37	
16 APR	1PM	THE ROOTED SEA, ARTIST TALK	26	
	7PM	UNDER PRESSURE: THE OCEAN SHOW PLANETARIUM LATE	33	
	19 APR	1PM	VERY SHORT INTRODUCTION TO PLANETARY SYSTEMS	27
	6PM	TRUST IN ME	27	
20 APR	7.30PM	SENSATIONAL STORIES OF SCIENCE	37	
	8PM	JIM AL-KHALIL: TOWARDS A RATIONAL LIFE	27	
	1PM	VERY SHORT INTRODUCTION TO FORENSIC SCIENCE	28	
	6PM	FOLKLORE, FABLE AND FACTS	28	
21 APR	7PM	EDINBURGH MEDAL ADDRESS	28	
	8PM	DEATH AND BEYOND	29	
	1PM	VERY SHORT INTRODUCTION TO INTELLIGENCE	29	
	6PM	CONSCIOUSNESS: MACHINES OF THE MIND	29	
22 APR	6PM	MINI BUT MIGHTY: SOME OF SCOTLAND'S RAREST SPECIES	30	
	7PM	DATA AFTER DARK	37	
	7PM	UNDER PRESSURE: THE OCEAN SHOW PLANETARIUM LATE	33	
	8PM	PREPARING FOR EXTREME WEATHER EVENTS	30	
23 APR	6PM	Dictatorship, Revolution and Technology	30	
	7PM	UNDER PRESSURE: THE OCEAN SHOW PLANETARIUM LATE	33	
	8PM	ANIMAL, VEGETABLE, CRIMINAL	30	
24 APR	2PM	EDINBURGH CONSERVATION FILM FESTIVAL	34	
	7PM	UNDER PRESSURE: THE OCEAN SHOW PLANETARIUM LATE	33	
24 APR	11AM	SCIENCE FESTIVAL CHURCH SERVICE	30	





9.30AM–4.30PM
ALLOW 4–5 HOURS FOR YOUR VISIT
SAT 9–SAT 23 APRIL
(NOT OPEN SUNDAYS)

ADVANCE PRICES

CHILD AGED 0–2 YEARS FREE
CHILD AGED 3–4 £5 | CHILD AGED 5+ £10
ADULTS £8 | DISABLED £5
REGISTERED UNEMPLOYED £5 (FOR EACH FAMILY MEMBER UP TO 6 PEOPLE, ID REQUIRED)

Edinburgh Science Festival at City Art Centre is the perfect, inspirational day out. Explore five floors packed with workshops and interactive events perfect for kids up to 12 years old. Parents can join in the fun too with drop-in workshops and our digital art exhibitions.



HOW TO BOOK YOUR CITY ART CENTRE DAY PASS

A day pass allows entry to City Art Centre. A Child 5+ Day Pass includes up to three bookable events. We recommend booking your Day Pass and selected events in advance to avoid queues and disappointment. Tickets purchased from City Art Centre on the day of the event cost £1 more per-ticket.

Timings for our bookable workshops can be found on pg.9 and on our website. Please keep the minimum age recommendations in mind when selecting workshops for your child – your child may be asked to leave the workshop if they are under the recommended age.

Drop-in activities do not need to be pre-booked and can be enjoyed by all the family, including younger children, throughout the day.

Please note: when attending City Art Centre, children must be accompanied by an adult and, unfortunately, we do not issue tickets to lone adults.

If you would like to discuss large group bookings for City Art Centre please call our Box Office on 0131 226 0005 and they will be happy to help you plan your visit.

COVID SAFETY

We are committed to ensuring that our City Art Centre events take place in a Covid-safe environment, and are working closely with the Scottish Government, City of Edinburgh Council and other relevant authorities to ensure we're following the latest Covid guidelines. As part of these measures we've scheduled extra cleaning for all workshop equipment and recruited additional staff to support this.

SENSORY BACKPACKS

Sensory backpacks have been created to help provide a more enjoyable experience for people who may have sensory processing conditions, autism, or anyone wanting extra support. They are available free of charge from the ticketing desk on the ground floor.

ADULTS GO FREE AT EASTER

Book a Child Day Pass and receive free adult entry on Friday 15, Saturday 16 and Monday 18 April. Call Box Office or book online – simply add a Child Day Pass and an Adult Day Pass to your basket and use the promo code EASTEREGG22.

GIFT AID SCHEME

Edinburgh Science Foundation, which runs Edinburgh Science Festival, is an educational charity. All ticket prices for City Art Centre include a voluntary 10% donation to support our work. For UK tax payers, this also allows us to reclaim the tax you pay through the Gift Aid Scheme; every pound you pay is worth £1.25 to us. If you do not wish to make a charitable donation, the admission prices for City Art Centre are Adult £7.27, Child 5+ £9.09, Child 3–4 £4.54
Charity number SC003790

giftaid it

CITY ART CENTRE SCHOOL DAYS

Our science playground, covering five floors of activities galore in City Art Centre, opens up two days early each year to enable school groups across Edinburgh to access this family space!

For more information about our community engagement and outreach work, visit sciencefestival.co.uk/community-engagement

Supported by



Actual Investors



**CULTURE
& BUSINESS
FUND
SCOTLAND**

**Edina
Trust**



WEE WONDER WORLD

AGES 3+
ACTIVITY

CITY ART CENTRE

9.30AM–4.30PM | DROP-IN

Step up small scientists! Explore why things float, enjoy science story time, construct a tremendous tower, build your own spinning toy or create a musical instrument. It's all possible with some simple science.

IMAGINATION PLAYGROUND

AGES 3+
ACTIVITY

CITY ART CENTRE

9.30AM–4.30PM | DROP-IN

Let your imagination run wild! Unlock your creative spirit and build magical, massive structures with our super-sized construction blocks in our *Imagination Playground*. What amazing structures will you make, and what will inspire your designs? Ideal for young engineers and adults alike.

BUZZ ABOUT BEES

AGES 3+
WORKSHOP

CITY ART CENTRE

10AM–4PM [HALF HOURLY] | 20 MINS

BOOKING REQUIRED

Buzzy, the giant honeybee, leads you into the wonderful world of bees in this delightful, interactive workshop. Learn how a bee's body is different from ours and find out how bees and flowers work in harmony together. Take a tour of a beehive, make pretty pollen-trail patterns and suck up nectar just like a real-life bee.

OCEAN CONSTRUCTORS

AGES 5+
NEW
ACTIVITY

CITY ART CENTRE

9.30AM–4.30PM | DROP-IN

Join us on a journey of discovery into the depths of Earth's oceans in our new underwater construction zone. Build your own sea creatures, plants, submarines, aquatic robots and help us construct an amazing underwater landscape.

NATURE EXPLORERS

AGES 5+
NEW
ACTIVITY

CITY ART CENTRE

9.30AM–4.30PM | DROP-IN

Our Earth is full of different habitats and species waiting to be explored! *Nature Explorers* is a series of activities that takes a look at life on the land and in the sea – meet endangered species you never knew existed and journey to the places they live.

DIG UP A DINOSAUR

AGES 5+
WORKSHOP

CITY ART CENTRE

10AM–4PM [HALF HOURLY] | 20 MINS

BOOKING REQUIRED

Ready to uncover dinosaur remains? Millions of years ago, dinosaurs ruled the Earth – millions of years later, it's time to find out all about them! Learn the techniques and tools scientists use to dig for bones and fossils, and then use your skills to brush away the sand and see what you can learn from your discovery.

ENERGY MAKERS

AGES 5+
WORKSHOP

CITY ART CENTRE

10AM–4PM [HOURLY] | 45 MINS

BOOKING REQUIRED

Discover the wonderful world of wind turbines! Learn how air can exert force and why the blades of a wind turbine spin. Get blown away by our awesome wind tunnel and chart the different speeds and directions of the wind. Finally, create your own turbines and test them in our tunnel in this great introduction to renewable energy.

SPLAT-TASTIC

AGES 5+
WORKSHOP

CITY ART CENTRE

10AM–4PM [HALF HOURLY] | 20 MINS

BOOKING REQUIRED

Get your goo on in this interactive workshop. Be creative with chemistry and design your own slime to take home. Test its thickness and stickiness under the extreme conditions of our 'Splat-o-Meter' and check out how the appearance and properties of materials can change when a chemical reaction takes place.

WILD VETS

AGES 5+
WORKSHOP

CITY ART CENTRE

10AM–4PM [HOURLY] | 45 MINS

BOOKING REQUIRED

Take on the role of an animal conservationist in our totally wild workshop. Discover more about Scottish wildlife heritage by exploring the animals that used to live here and the work being carried out to rewild the landscape and reintroduce animals like the beaver to Scotland.

ZOOM BOX

AGES 5+
ACTIVITY

CITY ART CENTRE

9.30AM–4.30PM | DROP-IN

Zoom in and get up close with the world around you! Use your smartphone camera with our special microscope tables to get a closer look at scientific samples. You can even create your own *Zoom Box* microscope to take home with you!

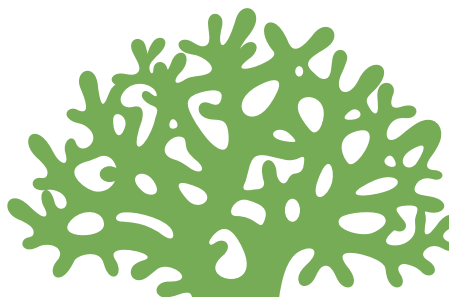
SECRET LIFE OF CORAL

AGES 5+
WORKSHOP

CITY ART CENTRE

9.30AM–4.30PM | DROP-IN

What's life like underwater? Explore the *Secret Life of Coral* and uncover the amazing creatures that live in its communities. Help us build a coral reef by making your own sea creature in this captivating hands-on activity.



CUBESAT CREATOR



AGES 7+
WORKSHOP

CITY ART CENTRE

10AM-4PM (HOURLY) | 45 MINS

BOOKING REQUIRED

Ready, set, lift off! Come and build a CubeSat, a tiny satellite which can be used to carry out tasks in space. Decide what your device should include and what tasks it needs to undertake - then figure out the best place in space for your miniature machine to complete its mission!

Developed with input from the UK Astronomy and Technology Centre

Supported by



ROBO CONSTRUCTORS



AGES 7+
WORKSHOP

CITY ART CENTRE

10AM-4PM (HOURLY) | 45 MINS

BOOKING REQUIRED

Welcome to the world of Cubelets! Building your own robot has never been easier - just snap the robot blocks together and let the magnetic faces do the rest. Become a mini-robot engineer in this fun, fast-paced workshop, and create your own wacky and useful robots!

BLOOD BAR



AGES 7+
WORKSHOP

CITY ART CENTRE

10AM-4PM (HALF-HOURLY) | 20 MINS

BOOKING REQUIRED

Pull up a chair in our *Blood Bar* and be prepared for things to get gory! Have a go at making your own scabs, mix up a gooey blood clot and even touch a real heart. Explore the science of blood and see how we can diagnose disease with cutting-edge technology. Take a closer look at the heart, lungs and oxygen in our *Don't Hold Your Breath* activity (every hour on the half hour) and find out what really happens when we get cuts and bruises in the *Scab Lab* (every hour on the hour).

ER SURGERY



AGES 8+
WORKSHOP

CITY ART CENTRE

10AM-4PM (HOURLY) | 45 MINS

BOOKING REQUIRED

Paging all surgeons to the emergency room - we need all hands on deck! Scrub up in the ER and help diagnose your 'patient', before performing life-saving surgery on the knee, abdomen and brain! *Please note, this workshop is closed with no viewing area for parents.*

VIRTUAL WORLDS



AGES 10+
ACTIVITY

CITY ART CENTRE

9.30AM-4.30PM | DROP-IN

Transport yourself into another world by grabbing one of our fantastic virtual reality headsets! Ever wondered what it's like to walk into another world, or to stand in the middle of a piece of art you just created? Get a taste for adventure just by popping on a headset.

CURIOSITY CORNER



ALL AGES
ACTIVITY

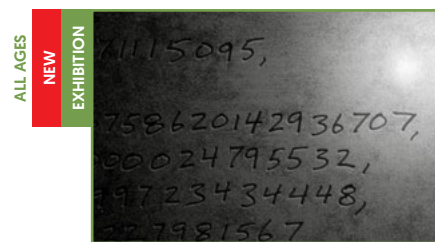
CITY ART CENTRE

9.30AM-4.30PM | DROP-IN

Pop over to curiosity corner to take a break from the excitement of the City Art Centre. There are plenty of books for the adults to find a new passion, and our science mini-cinema for the whole family to watch!



SOMEWHERE IN THE UNIVERSE IT RAINS DIAMONDS



ALL AGES
NEW
EXHIBITION

CITY ART CENTRE

9.30AM-4.30PM | DROP-IN

Carbon is a basis of life but potentially the source of our demise. In its purest forms, carbon appears as both sparkling diamond and dull graphite. On Earth, graphite is far more common but, in the atmospheres of gas giants, carbon fuses into diamond raindrops, beautiful shards - valuable but deadly. A new work by Edinburgh based artist **Theodore Koterwas** contrasts the romantic mystery of the cosmos with our tedious efforts to understand it. An Artificial Intelligence that was trained on the handwriting of astronomers tirelessly scrawls data from these wondrous stellar events onto a dusty wall of graphite. *Please note that City Art Centre is a family venue and as such adults are welcome to enjoy the exhibition while their children attend workshops and activities.*

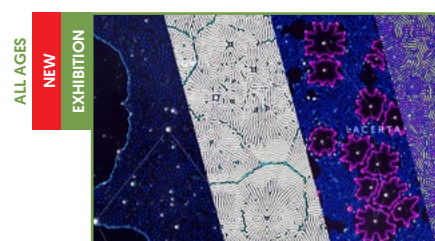
Image: Theodore Koterwas



Scottish Government
Riaghaltas na h-Alba
gov.scot

Developed with support from Creative Scotland through the Scottish Government's Festivals Expo Fund

YOU ARE HERE



ALL AGES
NEW
EXHIBITION

CITY ART CENTRE

9.30AM-4.30PM | DROP-IN

A magic window to the sky shows curious stars around the stately City Art Centre. When they sense a watcher, the heavens come alive! Seeded by the constellations, cellular algorithms evolve a carnival of colour and shape across the cosmos. The beguiling patterns, influenced by research from Alan Turing himself, sometimes evoke fingerprints - radio waves or even microscopic life. *Please note that City Art Centre is a family venue and as such adults are welcome to enjoy the exhibition while their children attend workshops and activities.*

Created by Ray Interactive. Co-commissioned by Aberdeen Performing Arts and New Media Scotland's Alt-w Fund with investment from Creative Scotland
Image: Ray Interactive



Scottish Government
Riaghaltas na h-Alba
gov.scot

Developed with support from Creative Scotland through the Scottish Government's Festivals Expo Fund

THE ELEMENTALISTS: WE ARE BUILDING A NEW WORLD



9.30AM – 4.30PM | DROP-IN

In this exhibition Edinburgh-based artist **John Brown** explores his interest in creating images showing the optimistic use of the experiment and model making as processes to examine and understand the world. John's experience of working in an art college allows him many opportunities to see a constant turnover of experimentation through making by artists using a wide range of sources and materials and this has informed a lot of the imagery in this work. Using the idea of a periodic table and multiple paintings as a format he has imagined a group of people constructing and exploring individual elements that are components of a bigger picture. *Please note that City Art Centre is a family venue and as such adults are welcome to enjoy the exhibition while their children attend workshops and activities.*

Presented by City Art Centre
Image: John Brown

PLAN YOUR DAY

With your City Art Centre Day Pass, you'll have access to any number of drop-in activities and up to three bookable workshops – the perfect day of science fun! You can mix and match any workshop, or take some inspiration from these suggestions.



FOR LITTLE ADVENTURERS

There's fun to be had by kids of all ages at City Art Centre – even for the littlest of scientists!

- WEE WONDER WORLD | 3+
- IMAGINATION PLAYGROUND | 3+
- BUZZ ABOUT BEES | 3+



FOR NATURE EXPLORERS

If you wonder about wildlife or have a curiosity for conservation, these workshops are perfect to dive in to.

- BUZZ ABOUT BEES | 3+
- WILD VETS | 5+
- OCEAN CONSTRUCTORS | 5+
- NATURE EXPLORERS | 5+



FOR INNOVATIVE ENGINEERS

Put on your problem solving hat and explore the worlds of energy, robots and coding.

- IMAGINATION PLAYGROUND | 3+
- ENERGY MAKERS | 5+
- ROBO CONSTRUCTORS | 7+
- CUBESAT CREATOR | 7+



FOR PRACTICAL SCIENTISTS

It's time to get messy with these hands-on experiences that really bring science to life!

- SECRET LIFE OF CORAL | 5+
- SPLAT-TASTIC | 5+
- BLOOD BAR | 7+
- ER SURGERY | 8+



FOR BUDDING BUILDERS

Let your imagination run wild in these creative experiences that will build your construction skills for the future!

- IMAGINATION PLAYGROUND | 3+
- OCEAN CONSTRUCTORS | 5+
- VR WORLDS | 10+

Supported by **HCI**
Skills Gateway



FOR DYNAMIC DETECTIVES

Satisfy your curiosity and investigate the world around us with these interactive workshops.

- WILD VETS | 5+
- ZOOM BOX | 5+
- DIG UP A DINOSAUR | 5+
- VR WORLDS | 10+



BOOKABLE WORKSHOPS SCHEDULE

Many of our events are available to drop into during your visit. However, some workshops have a limited capacity and should be booked in advance. You can reserve up to three bookable workshops per Child Day Pass purchased. Please use the schedule below to plan your day. We would ask you to keep this schedule and the minimum age recommendation in mind when selecting workshops for your child. Your child may be asked to leave the workshop if they are under the recommended age.

This timetable is correct at the time of printing, but may be adapted in line with Covid measures – please see our website for the latest timings.

AGE	START TIME	10.00	10.30	11.00	11.30	12.00	12.30	1.00	1.30	2.00	2.30	3.00	3.30	4.00	4.30
3+	BUZZ ABOUT BEES 20 MINS														
5+	DIG UP A DINOSAUR 20 MINS														
5+	ENERGY MAKERS 45 MINS														
5+	SPLAT-TASTIC 20 MINS														
5+	WILD VETS 45 MINS														
7+	CUBESAT CREATOR 45 MINS														
7+	ROBO CONSTRUCTORS 45 MINS														
7+	BLOOD BAR 20 MINS	SL	DHYB	SL	DHYB	SL	DHYB	SL	DHYB	SL	DHYB	SL	DHYB	SL	
8+	ER SURGERY 45 MINS														

BOOKING HOTLINE: 0131 226 0005

ONLINE BOOKING: SCIENCEFESTIVAL.CO.UK

DATASPHERE

DATASPHERE

ALL AGES
EXHIBITION



NATIONAL MUSEUM OF SCOTLAND | GRAND GALLERY
SAT 9–SUN 24 APR | 10AM–5PM | DROP-IN | FREE

Our lives have been transformed by the power of data, but how often do we look past the screen and see what fuels all this information? From smartphones to speakers, healthcare to homes, data is everywhere.

Send, swipe and scroll in this multi-media exploration of the information driving our world. Explore personal, local and global reliance on data through this series of engaging and interactive installations whilst asking yourself – is access to all of this data always a good thing?

DataSphere features artwork from Scottish artists **Alan Brown** and **Silent Chaos** and a rotating schedule of exciting drop in events including *MicroCoders*, supported by Digital Xtra Fund – check out our website for details.

Presented in partnership with the National Museum of Scotland



Supported by



Supported by the PLACE (Platforms for Creative Excellence) Programme, a partnership between the Scottish Government – through Creative Scotland – the City of Edinburgh Council and the Edinburgh Festivals



ALBA | CHRUTHACHAIL



DATA AND DISCOVERY

AT NATIONAL MUSEUM OF SCOTLAND

One of Edinburgh's most iconic buildings, the National Museum of Scotland houses treasures from around the world, all under one roof. During the Science Festival you'll find special events and exhibits for all ages. There are also bookable talks and workshops. In the evenings and at weekends, don't miss our exciting programme of *Big Ideas* discussions and debates [pg.24-30].

OPEN SATURDAY 9 APRIL–SUNDAY 24 APRIL
10AM–5PM AND EVENINGS FOR EVENTS
CHAMBERS STREET, EDINBURGH, EH1 1JF

Visit the National Museum of Scotland for free drop-in activities, workshops, and exhibitions for all ages. Join us in the evening for our fascinating programme of talks and discussions for adults and young people.



CYBER ZONE

Be sure to check out our *Cyber Zone* events, a series of interactive workshops for kids that focus on technology, computing and programming – discovering the digital world has never been so cool!

RELAXED OPENING HOUR

Visit the National Museum of Scotland between 10am–11am on Sunday 24 April and enjoy our *DataSphere* exhibition without noisy interactives and videos to give a more relaxed environment. For more information visit nms.ac.uk

THE UNIVERSITY OF EDINBURGH

The University of Edinburgh works in partnership to connect science and society to make the world a better place. Discover science with real scientists from The University of Edinburgh during the Science Festival. Visit the Learning Centre for family-friendly activities, and keep an eye out for adult events throughout the programme.



THE UNIVERSITY
of EDINBURGH

BIODISCOVERIES

ALL AGES
ACTIVITY



NATIONAL MUSEUM OF SCOTLAND

LEARNING CENTRE LEVEL 2, EVENT SPACE

SAT 9 APR–WED 13 APR

10.30AM–12.30PM, 1.30PM–4.30PM | DROP-IN | FREE

How can fruit flies help us understand immunity? What are scientists doing right now to find better treatments for malaria? And how can plant science tackle global challenges? Chat with friendly Biologists from the University of Edinburgh to find out what they've been investigating this year, and make some discoveries of your own. Get hands-on to identify live fruit fly mutants under the microscope, diagnose malaria from blood samples, and predict what will happen in our live plant growth experiment.

Presented by The University of Edinburgh

CIRCLES IN MATHS, NATURE... AND EVERYDAY LIFE

ALL AGES
ACTIVITY



NATIONAL MUSEUM OF SCOTLAND

LEARNING CENTRE LEVEL 2, EVENT SPACE

SAT 9 APR–WED 13 APR

10.30AM–12.30PM, 1.30PM–4.30PM | DROP-IN | FREE

Why is a pizza round? Why does a 50p coin roll through a vending machine? How can a misunderstanding of shape lead to catastrophic disasters, such as the destruction of the NASA Challenger shuttle? Explore these questions and many more through interactive challenges and puzzles. Discover what mathematicians really do, and how their work underpins discoveries. Students and staff from the University of Edinburgh will guide you, discuss their research, and ultimately reveal what being a mathematician really means.

Presented by The University of Edinburgh

QUANTUM SPIES

ALL AGES
ACTIVITY



NATIONAL MUSEUM OF SCOTLAND

LEARNING CENTRE LEVEL 2, EVENT SPACE

SAT 9 APR–WED 13 APR

10.30AM–12.30PM, 1.30PM–4.30PM | DROP-IN | FREE

Explore the mysteries of quantum informatics with scientists from the University of Edinburgh! Expose hidden messages, cover your tracks, and intercept secret transmissions, all by manipulating the quantum nature of light. These quantum skills let you tackle a top-secret mission where you can earn your quantum spy licence!

Presented by The University of Edinburgh

HEALTHY EATING
DISCOVERIES

NATIONAL MUSEUM OF SCOTLAND

HAWTHORNDEN COURT

SAT 9–WED 13 APRIL | 10AM–5PM | DROP-IN | FREE

Come and discover exciting activities with Food Standards Scotland where you can learn more about healthy eating and food safety. Have you ever wondered how long it takes to burn off a jelly baby while cycling? Come and visit us and find out!

Supported by

CAN WE RECYCLE
CHEMICALS?

NATIONAL MUSEUM OF SCOTLAND

LEARNING CENTRE LEVEL 4, STUDIO 2

SAT 9 APR | 11AM, 11.45AM, 12.30PM, 2PM, 2.45PM
& 3.30PM | 30 MINS

£3 | FREE FOR ACCOMPANYING ADULTS

While we may not think about it, most of us will interact with the chemical industry on a daily basis, from the shampoo we put in our hair to the lubricants we put in our car. The trouble is, disposing of all these chemicals is hard and often leads to environmental damage. The UKRI Interdisciplinary Centre for Circular Chemical Economy are leading the way in trying to recycle these chemicals and they want you to get involved! Come along and join a workshop to find out what chemicals we are using, how we can rescue them, and how it all links to the climate crisis! Children must be accompanied by an adult during this workshop.

Presented by UKRI Interdisciplinary Centre for Circular Chemical Economy

READY, STEADY, GROW: THE
LIFECYCLE OF A HUMAN BODY

NATIONAL MUSEUM OF SCOTLAND

LEARNING CENTRE LEVEL 4, STUDIO 2

SUN 10 APR | 11AM & 2PM | 1 HOUR

£5 | FREE FOR ACCOMPANYING ADULTS

Join scientists from the MRC Centre for Reproductive Health to learn about the challenges of creating a new life from successful fertilisation of an egg, to the growth and development of an embryo, and ultimately the creation of a healthy human. Examine real mouse embryos to find out how they develop. Use microscopes to discover how cells grow and change to become a healthy body. And uncover what the different cells in your body do and what happens when cell growth goes wrong. Children must be accompanied by an adult during this workshop.

Presented by The University of Edinburgh

DISEASE DETECTIVES



NATIONAL MUSEUM OF SCOTLAND

LEARNING CENTRE LEVEL 4, STUDIO 2

MON 11 APR | 11AM & 2PM | 1 HOUR

£5 | FREE FOR ACCOMPANYING ADULTS

Viruses are everywhere from cold and flu to COVID19. However, there are many other types of infectious disease and we need to know the correct cause to give the right treatment. In this workshop we will explore how different infections spread, how we can identify the culprit, and how to then treat the illness. It will be run by real life *Disease Detectives* – scientists at the University of Edinburgh who are working to find out more about infectious diseases. Children must be accompanied by an adult during this workshop.

Presented by The University of Edinburgh

AMAZING IMMUNOLOGY:
BUILD A VACCINE!

NATIONAL MUSEUM OF SCOTLAND

LEARNING CENTRE LEVEL 4, STUDIO 2

TUE 12–WED 13 APR | 11AM & 2PM | 50 MINS

£5 | FREE FOR ACCOMPANYING ADULTS

Become an immunologist for a day! Build your own vaccine from 3D-printed components, 'vaccinate' a pet through a fun ball game, and explore how vaccines inform the immune system and protect against disease. Get hands-on with University of Edinburgh medical scientists and find out more about cutting-edge immunology research. Children must be accompanied by an adult during this workshop.

Presented by The University of Edinburgh, Centre for Inflammation Research

WHAT'S INSIDE?



NATIONAL MUSEUM OF SCOTLAND

LEARNING CENTRE LEVEL 4, STUDIO 2

THU 14 APR | 11AM & 2PM | 1 HOUR

£5 | FREE FOR ACCOMPANYING ADULTS

Have you ever wondered how medical professionals can examine what's happening on the inside using only medical imaging technologies? In this workshop, our expert anatomists will introduce you to the basics of medical imaging, including X-Rays, CT and MRI, and help you to learn about the inner workings of your body through interactive exercises and real-world examples. Children must be accompanied by an adult during this workshop.

Presented by The University of Edinburgh

HOST BUSTERS
FAMILY WORKSHOP

NATIONAL MUSEUM OF SCOTLAND

LEARNING CENTRE LEVEL 4, STUDIO 2

TUE 19–WED 20 APR | 11AM & 2PM | 1 HOUR

£5 | FREE FOR ACCOMPANYING ADULTS

Join scientists from the University of Edinburgh's Roslin Institute to follow Steph the Staph's journey from a cow's nose to a farmer's! Get hands-on with fun activities about useful and harmful bacteria and how they can spread, play the *Host Busters* game to see if your bacteria can win valuable power-ups and survive in different farm animals, and find out what it's like to be a scientist. By the end we hope you'll agree with us that bacteria are amazing! Children must be accompanied by an adult during this workshop.

Presented by The University of Edinburgh

MAKING CIRCLES



NATIONAL MUSEUM OF SCOTLAND

LEARNING CENTRE LEVEL 4, STUDIO 2

THU 21 APR | 11AM & 2PM | 90 MINS

£10 | FREE FOR ACCOMPANYING ADULTS

Did you know that we could have 80% less impact on the environment by making changes at the design stage? Find out more in *Making Circles*, a circular economy design workshop in which you use your creativity and imagination to design out waste. Work with a professional designer-maker and use a range of inspiring materials to create a prototype for your idea and understand how we can make better use of the world's resources. One adult per participant may book a free ticket and sit in on the workshop.

Presented by Ostrero

CYBER ZONE

This year we've packed all our tech workshops into one immersive *CyberZone* at National Museum of Scotland. Learn some programming skills, code your own game or app, and create your own electronic instrument – the digital world has never been so cool!

Supported by the PLACE (Platforms for Creative Excellence) Programme, a partnership between the Scottish Government – through Creative Scotland – the City of Edinburgh Council and the Edinburgh Festivals



CODE YOUR OWN DATA SELFIE



AGES 8+ WORKSHOPS

NATIONAL MUSEUM OF SCOTLAND
LEARNING CENTRE LEVEL 4, SEMINAR ROOM

TUE 19 APR | 10.30AM, 12.30 & 2.30PM | 1 HOUR
£15 | FREE FOR ACCOMPANYING ADULTS

Join our data science team to create a data-driven piece of digital art about the person you know best: you. Learn about data visualisation and how data can be used to create art. In this practical workshop, you'll get to code your own self-portrait using personal data. Your self-portrait is unique to you. You'll use data visualisation software to create an abstract drawing based on data you choose to share about yourself. You'll also get to look behind the code to discover how it works. No previous experience of data science or coding is required. Children must be accompanied by an adult during this workshop.

Presented by Digital Skills Education

CREATE YOUR OWN APP



AGES 9+ WORKSHOP

NATIONAL MUSEUM OF SCOTLAND
LEARNING CENTRE LEVEL 4, SEMINAR ROOM

FRI 22 APR | 10.30AM, 12.30 & 2.30PM | 75 MINS
£10 | FREE FOR ACCOMPANYING ADULTS

Learn how to be an app developer and create your own smartphone app! Whether it's for an iPhone or Android you will learn the essentials of designing and programming a mobile app. We will be using an intuitive, easy to use platform that's perfect for first-timers and loaded with features for the more adventurous. Children must be accompanied by an adult during this workshop.

Presented by ComputerXplorers

ELECTRONIC MUSIC: INTERMEDIATE



AGES 11+ WORKSHOP

NATIONAL MUSEUM OF SCOTLAND
LEARNING CENTRE LEVEL 4, STUDIO 2

FRI 22–SAT 23 APR | 2PM | 90 MINS | £15

Find out how electronic circuits make sounds and build one of your own. Using a soldering iron you'll construct a Scuttlebut, a little synthesiser with a retro 70s look that is capable of making a variety of bleeps and beeps. Previous soldering experience is required – *Electronic Music: Beginners* is available for soldering newbies at 11am. Children must be accompanied by an adult during this workshop, who can book a free ticket or purchase a ticket if they wish to take part.

Presented by MadLab

BRICKS AND BLOCKS



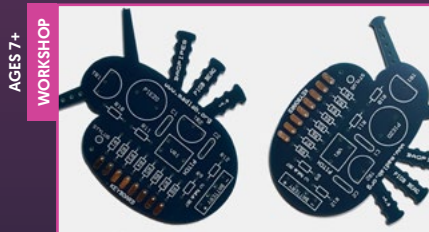
AGES 5+ WORKSHOP

NATIONAL MUSEUM OF SCOTLAND
LEARNING CENTRE LEVEL 4, SEMINAR ROOM

WED 20–THU 21 APR | 10.30AM & 12.30PM
1 HOUR | £10 | FREE FOR ACCOMPANYING ADULTS

A fun hands-on introduction to programming which will inspire budding coders and robot fans. Using laptops and simple drag-and-drop coding, learn about robotics, coding and problem solving. Put these skills into practice and programme goalkeepers using specialised LEGO® football kits to compete in the ultimate penalty shoot-out! Children must be accompanied by an adult during this workshop.

ELECTRONIC MUSIC: BEGINNERS



AGES 7+ WORKSHOP

NATIONAL MUSEUM OF SCOTLAND
LEARNING CENTRE LEVEL 4, STUDIO 2

FRI 22–SAT 23 APR | 11AM | 90 MINS
£15 | FREE FOR ACCOMPANYING ADULTS

Find out how electronic circuits make sounds and build one of your own to take home with you. You'll learn how to solder components to a small circuit board that is shaped like a set of bagpipes. When the circuit is complete, your new gadget will play a little tune. No previous experience required! Children must be accompanied by an adult during this workshop.

Presented by MadLab

GAME DESIGN USING XBOX CONTROLLERS



AGES 8+ WORKSHOP

NATIONAL MUSEUM OF SCOTLAND
LEARNING CENTRE LEVEL 4, SEMINAR ROOM

SAT 23 APR | 10.30AM, 12.30 & 2.30PM | 75 MINS
£10 | FREE FOR ACCOMPANYING ADULTS

Using an Xbox controller, learn how to create and code your very own video game. Create a range of terrains, worlds and characters, controlling movement, sound and vision using an intuitive icon-based programming language. At the end of the session, you will have your very own video game to take home and play! Children must be accompanied by an adult during this workshop.

Presented by ComputerXplorers



DISCOVER THE DEEP

AT DYNAMIC EARTH

Dynamic Earth is Edinburgh's science centre and a five-star visitor experience which invites you to take a journey through time to witness the story of Planet Earth. It features a series of interactive exhibits, Edinburgh's only planetarium, state of the art technology and even a 4D encounter – you will feel the heat of a bubbling volcano, face the chill of polar ice and fly across the globe before crash landing in a tropical rainforest.

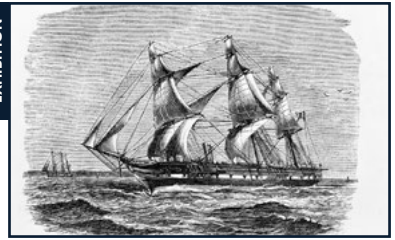
OPEN SATURDAY 9 APRIL – SUNDAY 24 APRIL
 CHECK DYNAMIC EARTH WEBSITE FOR OPENING HOURS
 HOLYROOD ROAD, EDINBURGH, EH8 8AS

During the Science Festival, visit Dynamic Earth for a packed programme of events and experiences for families and adults alike. Enjoy Dynamic Earth's brand-new gallery *Discovering the Deep*, try your hand at family *Boat Building* and make your own vessel out of natural materials, meet marine scientists and join us in the evening for a special extended version of *Under Pressure: The Ocean Show* in our Planetarium Lates.



HMS CHALLENGER LOG EXHIBITION

AGES 5+ EXHIBITION



DYNAMIC EARTH | OUTDOOR TERRACE

SAT 9 – SUN 24 APR | 10AM – 4PM | DROP-IN | FREE

On the 150th anniversary of the Challenger Expedition, marvel at the amazing discoveries it made in this outdoor exhibition of the gorgeous illustrations from the ship's original reports.

Presented by Dynamic Earth

DEEP SEA DISCOVERY

AGES 5+ ACTIVITY



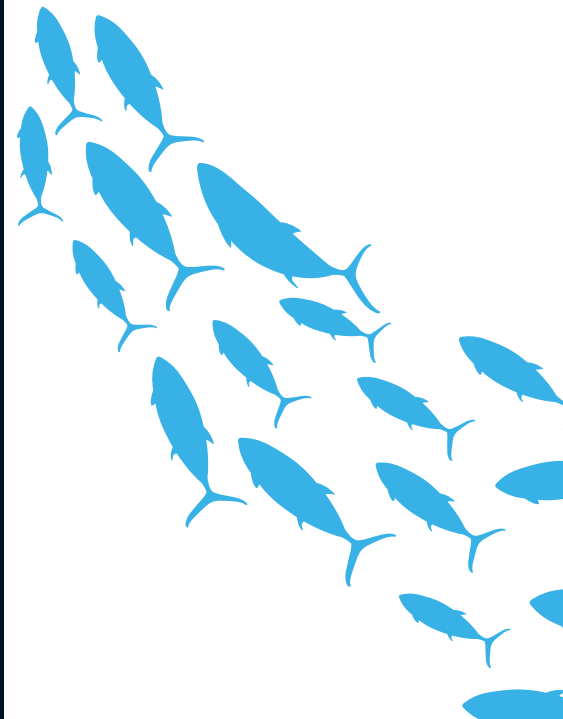
DYNAMIC EARTH | STRATOSPHERE

SAT 9 – SUN 24 APR | 10AM – 4PM | DROP-IN

FREE WITH ADMISSION TO DYNAMIC EARTH

Dive to the bottom of the ocean to discover Scotland's incredible marine habitats and the amazing creatures that call our deep ocean home with Dynamic Earth's fun family drop-in activities. Get up close to real-life specimens of creatures collected from the deep, carry out your own biodiversity survey of a cold-water coral reef and discover all the species that live right here in Scotland's seas. Find out about the threats to these environments, such as ocean acidification, with exciting experiments and demonstrations to learn how we can protect these important habitats. Finally, use all the amazing creatures you'll see as inspiration for crafting and colouring your own funky fish hat!

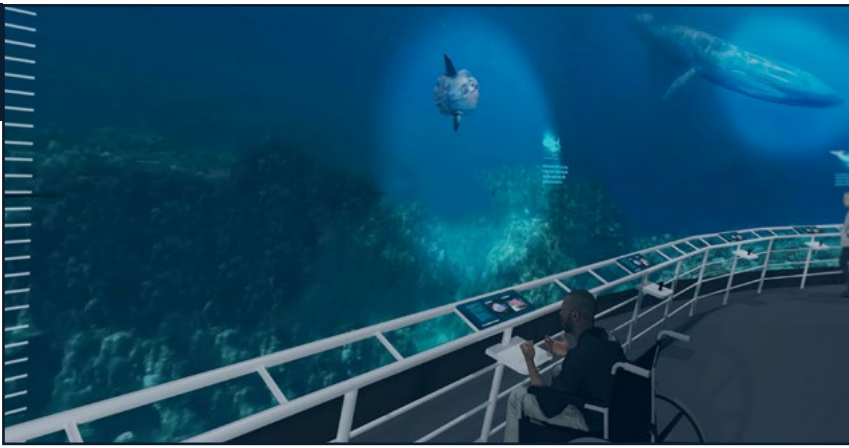
Presented by Dynamic Earth



DISCOVERING THE DEEP

AGES 5+

EXHIBITION



DYNAMIC EARTH | DISCOVERING THE DEEP GALLERY

SAT 9—SUN 24 APR | 10AM—4PM | DROP-IN | FREE WITH ADMISSION TO DYNAMIC EARTH

Explore the deep sea through Dynamic Earth's brand-new gallery, opening April 2022. Meet Scotland's pioneers of marine science, including Edinburgh's own Charles Wyville Thomson, whose exploration of Scotland's marine environments in the 19th century launched the modern science of oceanography. Dive into the depths of the sea and witness the incredible habitats and denizens of the deep, including Scotland's very own cold-water coral reefs. When you resurface you can meet the scientists of today and explore the equipment they use to understand and explore this massive environment, so deeply connected to the health and wellbeing of us all.

Presented by Dynamic Earth

JOURNEY TO THE DEEP

AGES 5+

WORKSHOP



DYNAMIC EARTH

MEET AT DYNAMIC EARTH STRATOSPHERE

WED 13 APR | 10.30AM AND 1.30PM | 90 MINS | £7/£5

Journey all the way to the deepest part of the ocean in this outdoor family walk. Walk 1.1km to represent the 11,000m distance to the deepest point of the ocean, the Mariana Trench. Take part in fun, family-friendly activities as you learn about the conditions at different depths and the creatures that live there. Gain a new appreciation of the deep and how it is connected to all of us in our daily lives, learn about some of the threats it faces, and what we can do to protect it.

Presented by Dynamic Earth

UNDER PRESSURE: THE OCEAN SHOW PLANETARIUM LATE

AGES 12+

FILM



DYNAMIC EARTH | PLANETARIUM

THU 14—SAT 16 & THU 21—SAT 23 APR | 7PM | 50 MINS

£12/£10

Join us for a special evening performance of Dynamic Earth's brand-new, live planetarium show for 2022, *Under Pressure*. Come with us as we take a deep dive into the global ocean; we'll explore dark, hidden ecosystems and see the collective efforts of hundreds of marine scientists and engineers, striving to learn all we can about these enigmatic worlds. We'll also ponder on our ability to shape the future of this global ocean we all depend on. For these evening events you will see a special extended version of the show - don't miss it!!

Presented by Dynamic Earth

BOAT BUILDING

AGES 5+

WORKSHOP



DYNAMIC EARTH

MEET AT DYNAMIC EARTH STRATOSPHERE

WED 20 APR | 10.30AM AND 1.30PM | 90 MINS | £7/£5

Learn some boat building techniques and discover how huge ships were constructed hundreds of years ago. Find out about the equipment early research vessels such as *HMS Challenger* had on board, how they were used and what they discovered about the deep ocean. Put your newly learned skills to the test as you build your own boat out of natural materials, consider what it would research, and launch it on the pond in Holyrood Park to see if it remains afloat!

Presented by Dynamic Earth

MEET THE MARINE SCIENTISTS

AGES 5+

ACTIVITY



DYNAMIC EARTH | STRATOSPHERE

SUN 24 APR | 10AM—4PM | DROP-IN

FREE WITH ADMISSION TO DYNAMIC EARTH

Meet marine scientists investigating Scotland's deep-sea environments in this drop-in event. Discover the cutting-edge equipment they use to research at extreme depths, experience diving to the deep with footage from deep-diving vehicles and see some real-life deep-sea creatures up close!

Presented by Dynamic Earth

EVENTS FOR FAMILIES AND ADULTS



GOING GREEN

AT ROYAL BOTANIC GARDEN EDINBURGH

The Botanics is a world renowned centre for plant science and education, aiming to explore, conserve and explain the world of plants for a better future.

OPEN SATURDAY 9–SUNDAY 24 APRIL, 10AM–6PM

JOHN HOPE GATEWAY, ARBORETUM PLACE, EH3 5NZ / EAST GATE, INVERLEITH ROW, EH3 5LR

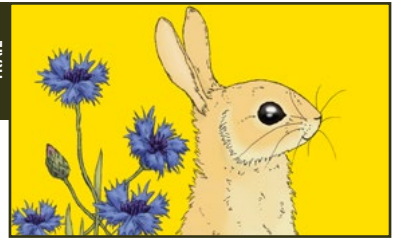
Visit the Royal Botanic Garden Edinburgh for interactive family activities, exhibitions for all ages and discussions for adults and young people. Explore the beauty of the Garden while exploring the *Easter Trail*, learn about the animals and plants around us as you become a *Nature Champion*, and experience the Forth shoreline in the *Forth Lines* exhibition.



Royal Botanic Garden Edinburgh

EASTER TRAIL

AGES 3+ TRAIL



ROYAL BOTANIC GARDEN EDINBURGH | GARDEN
SAT 9 APR–SUN 24 APR | 10AM–4.30PM | DROP-IN
PICK UP A TRAIL BOOKLET FROM JOHN HOPE GATEWAY RECEPTION OR EAST GATE | £2 PER BOOKLET
Join the annual Botanics *Easter Trail* and explore the Garden to find all the clues. Complete the trail and receive a yummy Easter treat.
Presented by Royal Botanic Garden Edinburgh

SEEING THE INVISIBLE

ALL AGES EXHIBITION



ROYAL BOTANIC GARDEN EDINBURGH | GARDEN
SAT 9–SUN 24 APR | 10AM–5.45PM | DROP-IN | FREE
Seeing the Invisible is the first exhibition of its kind to be developed in collaboration between botanical gardens and art institutions from around the world. The exhibition features 13 augmented reality (AR) works by artists including: **Ai Weiwei**, **Issac Julian CBE**, **Daito Manabe**, **El Anatsui** and **Refik Anadol**. The exhibition's themes centre around our relationship with nature and explore the boundaries and connections between art, technology, and nature. Download the app for free on to a smartphone or tablet and enjoy a new experience of engaging with contemporary art in a unique and thought-provoking setting.
Presented by Royal Botanic Garden Edinburgh

FORTH LINES

ALL AGES EXHIBITION



ROYAL BOTANIC GARDEN EDINBURGH
JOHN HOPE GATEWAY
SAT 9–SUN 24 APR | 10AM–5.45PM | FREE
Explore the Firth of Forth shoreline through the eyes of people who live and work around it. Over the past year, people from the Fife and Lothian coasts have come together to create an illustrated story through 184 pieces of crafted calico – follow the entire Forth Lines coast for the first time at the Royal Botanic Garden Edinburgh.
Presented by Royal Botanic Garden Edinburgh

A ROSE BY ANY OTHER NAME...



ALL AGES
EXHIBITION

ROYAL BOTANIC GARDEN EDINBURGH

INVERLEITH HOUSE

SAT 9 APR–SUN 24 APR | 10.30AM–5.30PM (LAST ENTRY 5.15PM) | DROP-IN | FREE

Obsession, Threat and the Riddle of Rhododendrons. Coinciding with the peak flowering period of RBGE's rhododendrons, this exhibition reveals our significant history of collecting, researching and cultivating this genus, including work by contemporary artists, historical botanical illustration, photography and objects from our archive.

Presented by Royal Botanic Garden Edinburgh

A ROSE BY ANY OTHER NAME... BSL TOUR



ALL AGES
TOUR

ROYAL BOTANIC GARDEN EDINBURGH

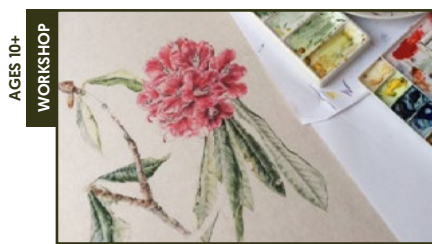
INVERLEITH HOUSE

SUN 10 APR | 2PM | 1 HOUR | FREE BOOKING REQUIRED

Join us for a BSL tour of our new exhibition *A rose by any other name...* This tour is in British Sign Language (BSL), led by **Trudi Collier**. Please book your free ticket in advance and meet on the day in front of Inverleith House, between the gallery and the lawn.

Presented by Royal Botanic Garden Edinburgh

A ROSE BY ANY OTHER NAME... BOTANICAL ILLUSTRATION WORKSHOP



AGES 10+
WORKSHOP

ROYAL BOTANIC GARDEN EDINBURGH | GARDEN

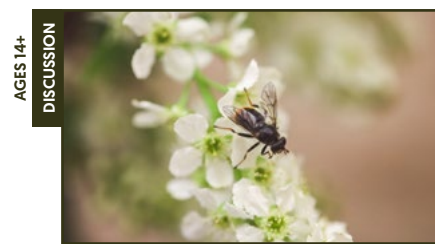
WED 13 APR | 1.30PM | 150 MINS

FREE BOOKING REQUIRED

Inspired by the spectacular Rhododendron illustrations in our exhibition *A rose by any other name...*? Take a close look at the rhododendrons blossoming in the Garden and create your own studies of these stunning plants, guided by **Jacqui Pestell**, RBGE Head of Botanical Illustration, and botanist and artist **Sarah Roberts**. Outdoor workshop – dress for the weather.

Presented by Royal Botanic Garden Edinburgh

MINI BUT MIGHTY: SOME OF SCOTLAND'S RAREST SPECIES



AGES 14+
DISCUSSION

ROYAL BOTANIC GARDEN EDINBURGH

LECTURE THEATRE 20A INVERLEITH RD

THU 21 APR | 6PM | 90 MINS | £6

Despite being fundamental to life as we know it, plants and invertebrates are often underappreciated and underrepresented within species conservation efforts, but not today! Meet the experts working to save some of Scotland's rarest and least known species: the alpine sow-thistle and the pine hoverfly.

Presented by Royal Botanic Garden Edinburgh and the Royal Zoological Society of Scotland

ENGAGING GARDENS SPRING FESTIVAL



ALL AGES
ACTIVITY

ROYAL BOTANIC GARDEN EDINBURGH

DEMONSTRATION GARDEN

SUN 24 APR | 12PM–4PM | DROP-IN | FREE

Join us in the vegetable garden at the start of the growing season as we get going with our annual spring tasks. Find out more about the lifecycle of the productive plots and immerse yourself in the sights, sounds and smells of the garden with our family friendly activities.

Presented by Royal Botanic Garden Edinburgh

NATURE CHAMPIONS



AGES 3+
WORKSHOP

ROYAL BOTANIC GARDEN EDINBURGH | GARDEN

SAT 23–SUN 24 APR | 10.30AM AND 1.30PM | DROP-IN

FREE

Discover the captivating biodiversity that thrives at the Royal Botanic Garden Edinburgh. Get to know the animals and plants that surround us, find out what they need to thrive, and become a *Nature Champion*. Fun and engaging activities for all ages.

Presented by Royal Botanic Garden Edinburgh





STEP BACK IN TIME

AT EDINBURGH ZOO

OPEN SATURDAY 9 APRIL–SUNDAY 24 APRIL, 10AM–5PM
134 CORSTORPHINE ROAD, EDINBURGH, EH12 6TS



For a great day out this Easter, you can't beat Edinburgh Zoo. Their world-class attractions and extensive animal collection will provide you and your family with memories to last a lifetime!

During the Science Festival, discover a range of dino-mite activities perfect for children of all ages in addition to all the usual animal antics.



DINO BITES!

ALL AGES
ACTIVITY



EDINBURGH ZOO | GRASSLANDS RESTAURANT
SAT 9–SUN 10 APR & SAT 23–SUN 24 APR | 9AM | 2 HOURS | SEE WEBSITE FOR PRICING | INCLUDES DAY ENTRY INTO EDINBURGH ZOO

Do you have an appetite for adventure? Join us at Edinburgh Zoo for a scrummy, dino-mite breakfast! Become a velocer-crafter and take part in our family friendly dino inspired crafts while you make roar-some discoveries. Travel through the ages as you explore the beasts of the past during this tricera-tops morning!

Presented by the Royal Zoological Society of Scotland

MEET THE ANCES-TOUR

AGES 7+
TRAIL



EDINBURGH ZOO
SAT 9–SUN 24 APR | DAILY | FREE WITH ADMISSION

Step into the past with our self-led trail around the zoo. Discover more about our animals and what links them to the pre-historic worlds that came before! Follow the trail as it leads you to the top of the hill where you can explore the creatures of the past as they come alive around you.

Presented by the Royal Zoological Society of Scotland

EDSCIFEST ON DEMAND



Enjoy Edinburgh Science Festival wherever you are, whenever works for you, with *EdSciFest On Demand*. We've brought back some of our favourite online events for you to enjoy on demand, from inspiring panel discussions for adults, crafty workshops for kids and self-led trails you can try wherever you live. You can also try out *DNAtion*, our interactive quiz where you can learn about the exciting work we do as a charity while finding out your very own science personality! Visit sciencefestival.co.uk to start watching.

DNATION

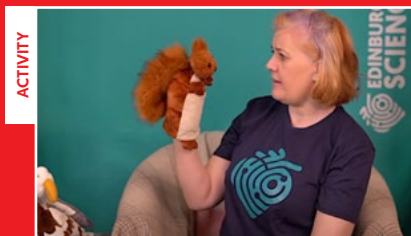


ONLINE

THU 24 FEB – SUN 24 APR | FREE

Meet your very own tiny traveller and set off into the universe to learn more about Edinburgh Science and how we impact the world! *DNAtion* is our interactive science quiz where you can discover your very own science personality while learning about the exciting work we do as a science charity. Share your results with friends and find out how your donations bring amazing science experiences to people just like you. Try the quiz now at sciencefestival.co.uk/DNAtion

EDSCIFEST ONLINE: ACTIVITIES FOR FAMILIES



ONLINE

THU 24 FEB – SUN 24 APR | FREE

Try out these exciting activities that are perfect for the whole family! Investigate the science all around us with *Sensory Seashell Scrapbook* and *Our Colourful Parks*, self-led trails that can be done in any coastline or park around Scotland. Have a go at our interactive workshops *Speedy Sails*, *Ella's Wobble* and *Wild Vets* – perfect for any rainy day! Visit sciencefestival.co.uk

EDSCIFEST ONLINE: EVENTS FOR ADULTS



ONLINE

THU 24 FEB – SUN 24 APR | FREE

Prepare to be inspired as we bring back some of our favourite panel discussions from our 2021 programme. Enjoy *Spacewomen*, *Satellite's Eye View*, *Gendering AI*, *Computer Says Oh No!*, and *How to Handle a Pandemic*, which explore a wide range of science topics – from gender and space, to technology and the pandemic. Visit sciencefestival.co.uk

Save the Date!

Edinburgh International
Children's Festival
7–15 May 2022

Ruth Armstrong



What to expect at the Festival:

- ★ 12 visually stunning theatre and dance shows
- ★ A live experience to stimulate young minds
- ★ Family Encounters: FREE day of performances at the National Museum

Programme announced and tickets on sale from 16 March
www.imagine.org.uk



ALBA | CHRUTHACHAIL

OOT AND ABOUT

AROUND EDINBURGH

As well as in our core venues, you'll find Science Festival events all over the city and in some of Scotland's picturesque coastal towns. The ultimate science days out – right on your doorstep!

Hone your wilderness skills with *Family Bushcraft*, *Rewild Yourself* and *Woodland Nature Detectives*, take a trip to the seaside with *Gannet Games* and *Explore Beach Pebbles: Windows to the World*, or enjoy things at your own pace with our series of self-guided trails.

Our trails are outdoors, please ensure you have appropriate wet weather gear for the Edinburgh weather including a warm coat and waterproof shoes.

BOOKING HOTLINE: 0131 226 0005

ONLINE BOOKING: SCIENCEFESTIVAL.CO.UK

WILD SCOTLAND

EXHIBITION



PORTOBELLO PROMENADE

SAT 19 MAR – SUN 24 APR | DAILY | FREE

Celebrate the power of nature, our relationship with it and our responsibility for it in this free, large-scale photography exhibition. With a heartfelt plea to protect our natural heritage, in *Wild Scotland* we showcase stories of how the remarkable people, flora and fauna of Scotland are facing important choices, adapting to our changing world in the face of the climate emergency and playing their part in trying to ensure a successful and sustainable future for us all.

Supported by



STREET SCIENCE

ALL AGES
ACTIVITY



AROUND EDINBURGH

SEE SOCIAL MEDIA FOR DETAILS

FREE

With mind-boggling experiments and dazzling science demonstrations, our busking bikes take street performance to a whole new level. Witness explosions, weirdness and plenty of mess. Look out for our *Street Science* team around town in the run up to and during the Science Festival. Follow us on Twitter @EdSciFest for real-time updates.

Supported by the PLACE (Platforms for Creative Excellence) Programme, a partnership between the Scottish Government – through Creative Scotland – the City of Edinburgh Council and the Edinburgh Festivals



Scottish Government
Riaghaltas na h-Alba
gov.scot



ALBA | CHRUTHACHAIL



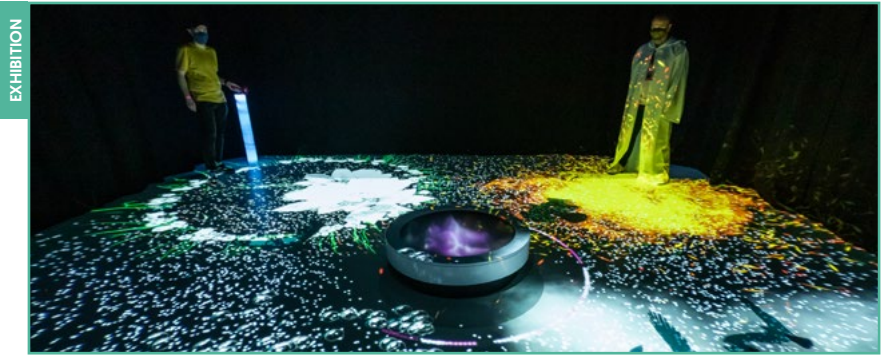
Actual Investors

ELEMENTAL



Images:

Gannets flying over cliff, Graham Richardson
 Winter Summit, Ben Lomond, Andy McCandlish
 Rannoch Moor, Beauty and Destruction, Nadir Khan
 Weasel peeking through mossy rocks, Norman Watson



SUMMERHALL | OLD LAB

SAT 9–SUN 24 APR | VISIT WEBSITE FOR TIMES | £3

The Ancient Greeks saw the world comprised of four elements – Earth, Air, Fire and Water (with philosopher Aristotle throwing in a fifth, Aether, for good measure) – that were thought to explain the nature and complexity of all matter and to be essential to life. Times have changed. We now have atomic theory, with atoms classified into more than a hundred chemical elements. Yet echoes of the old theory reverberate to this day and scientists admit we still don't know everything; there is still some mystery in our world. Interact with the elements on this magical multi-sensory journey of discovery through an intriguing, immersive digital world in which magic meets alchemy and alchemy meets science. Play, discover and create with your fellow explorers.

Presented by Bright Side Studios in association with Edinburgh Science. Bright Side Studios connect the space between art and technology to create powerful human experiences. They specialise in designing immersive environments and installations that bring stories of all sorts to vibrant life. They have a passion for playing with illusion and visual wonderment to create emotional connections with their audience.

Supported by



Developed with support from Creative Scotland through the Scottish Government's Festivals Expo Fund



EVENTS FOR FAMILIES AND ADULTS

CONSUMED



THE MOUND PRECINCT | THE MOUND PRECINCT

SAT 9–SUN 24 APR | DAILY | FREE

There are over 7 billion people on Earth and our ever-increasing collective thirst for 'stuff' is detrimentally affecting the way we live. But there is hope. Through eating, travelling and using energy differently, changing the way we shop and share, and using our consumer power, we have hope for the future. *Consumed* is a major exhibition that challenges the way we do things and gives you practical answers to your burning consumer questions. By empowering ourselves to take action and realise the power we have in our everyday lives, *Consumed* will show you how we can live well without it costing us the Earth.

Supported by



Developed with support from Creative Scotland through the Scottish Government's Festivals Expo Fund



Scottish Government
 Riaghaltas na h-Alba
 gov.scot

SENSORY SEASHORE SCRAPBOOK



TRAIL

A COAST OF YOUR CHOICE
 SAT 9–SUN 24 APR | 1 HOUR | SELF GUIDED | FREE
 It's time to open your eyes, your hands and your nostrils to life on the coastline! *Sensory Seashore Scrapbook* is a self-led trail exploring life on our coasts which can be done on any part of the coast you choose. Through a series of activities for the whole family, you will experience the sea in a more sensational way and use our guide to note down what you find. Visit our website to download the activity pack.

OUR COLOURFUL PARKS



TRAIL

A PARK OF YOUR CHOICE
 SAT 9–SUN 24 APR | 1 HOUR | SELF GUIDED | FREE
 Edinburgh is packed with parks! These green spaces are really important for our health and the health of the city – but it's not just green you can find there! Our parks are full of colourful plants, animals and other creatures just waiting to be found. What are you waiting for? *Our Colourful Parks* is a self-led tour around our urban green spaces for all the family, which can be done in any green space. Visit our website to download the activity pack.

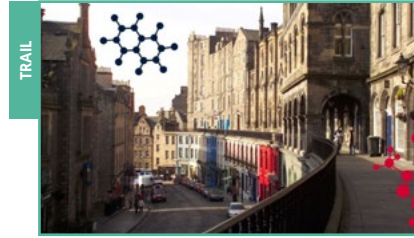
SECRETS OF HEALTHY COGNITIVE AGEING



TRAIL

GEORGES SQUARE
 SAT 9–SUN 24 APR | 1 HOUR | SELF GUIDED | FREE
 In 1932 almost all children living in Scotland who were born in 1921 sat a test that measured their thinking abilities. This group has worked with researchers at the University of Edinburgh as they age and have revealed unique insights into cognitive aging. Travel through time to learn about the unique history of the Lothian Birth Cohort studies, the people involved and what they can teach us about brain health and ageing. Visit our website for the trail map.
 Presented by The University of Edinburgh

EDINBURGH'S HIDDEN CHEMISTRY



TRAIL

THE OLD MEDICAL SCHOOL, TEVIOT PLACE
 SAT 9 APR–SUN 24 APR | 1 HOUR | SELF GUIDED | FREE
 The history of chemistry cannot be told without mention of The University of Edinburgh. As the subject developed over the centuries, discoveries, revelations, and analyses took place all over the city of Edinburgh. This self-guided tour follows a few of the chemistry highlights within Edinburgh's history, and invites you to explore the great chemistry discoveries which took place in our city. Visit our website for the trail map.
 Presented by The University of Edinburgh

EXPLORING EDINBURGH'S VOLCANO

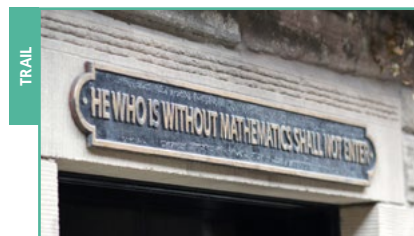


AGES 8+

TRAIL

ARTHUR'S SEAT
 SAT 9–SUN 24 APR | 2–3 HOURS | SELF GUIDED | FREE
 Long before the dinosaurs, Edinburgh was part of a 'ring of fire' like the one that now circles the Pacific Ocean, with volcanoes emerging from a shallow tropical sea. Take a walk around Holyrood Park and explore the evidence for these ancient volcanoes and how the geology still shapes the city and landscape we see today. This self-guided walking tour was created by the University of Edinburgh. There are two versions of this trail available – one for families and one for adults and young people. Visit our website for the trail map.
 Presented by The University of Edinburgh

A MATHEMATICAL TOUR AROUND EDINBURGH



TRAIL

ROYAL MILE
 SAT 9–SUN 24 APR | 1 HOUR | SELF GUIDED | FREE
 Hear and see the mathematical delights hidden in Edinburgh's city centre. Along the way, uncover some of the secret history of Edinburgh, discover some highlights of mathematics developed over the past two thousand years, and try your hand at some intriguing puzzles and games. The tour has been designed to be of interest to families, adults, mathematicians and non-mathematicians alike. This tour is self-guided and has been narrated for 2022. Visit our website for the trail map.
 Presented by The University of Edinburgh and the International Centre for Mathematical Sciences

TREE SPOTTING: HOW GREEN IS OUR NEIGHBOURHOOD?



TRAIL

TOLL CROSS
 SAT 9 APR–SUN 24 APR | 1 HOUR | SELF GUIDED | FREE
 Ever noticed the green around you? Join us on a self-guided walk through Tollcross and its vicinity to discover the legacy of urban planning and neighbourhood characteristics, as you look for trees and green spaces, counting cars and crossing roads! Get a little background on Patrick Geddes, the 19th century Edinburgh-based sociologist and pioneer town planner through the University of Edinburgh Heritage Collections, and learn about how scientists use historical and contemporary place-based information to understand the influence of environmental factors over the life course on our health later in life. Visit our website for the trail map.
 Presented by The University of Edinburgh

NEUROTRAIL



TRAIL

QUEEN STREET
 SAT 9–SUN 24 APR | 1 HOUR | SELF GUIDED | FREE
 How does your brain change during the course of your life? Consider this question as you discover Edinburgh's neuroscience landmarks past and present in this walking tour. This self-guided walking tour was created by Edinburgh Neuroscience at the University of Edinburgh. Visit our website for the trail map.
 Presented by The University of Edinburgh

BELLFIELD BREWERY TOUR & TASTING



AGES 18+

TOUR

BELLFIELD BREWERY
 SAT 9–SUN 24 APR [FRI–SUN ONLY]
 SEE WEBSITE FOR DETAILS | 45MINS | £14
 Join us for a tour of Bellfield Brewery; learn about the history of Bellfield, explore how the brewhouse equipment works and finish up with a tasting session. During the tasting you will sample four beers while you're taken through the malts, hops and other ingredients used to make them.
 Presented by Bellfield Brewery

FAMILY BUSHCRAFT

AGES 7+
WORKSHOP



LEITH LINKS | EARTH IN COMMON

SAT 9 APR | 10.30AM, 12PM, 2PM, 3.30PM | 1 HOUR

£20 FAMILY TICKET – FIVE PEOPLE INCLUDING UP TO TWO ADULTS

Ever wondered how to survive in the wilderness? In this workshop you will try your hand at some essential survival skills while testing your family's ability to light fires, create tools to hunt and cook the elusive... marshmallow. You might even learn something about human evolution! Children must be accompanied by an adult.

Presented by Laura Moss Education

COLLECTIVE RAIN HARVEST

AGES 5-12
WORKSHOP



COLLECTIVE

SAT 9 – SUN 10 APR | 11AM AND 2PM | 90MINS

£5 | FREE FOR ACCOMPANYING ADULTS

Explore the beauty and vitality of rainwater in this hands-on, sensory workshop that blends art, science and play. Celebrate the abundance of rain throughout this workshop in a relaxed outdoor environment at Collective, the centre for contemporary art on Calton Hill. Families can continue the experiment at home, by making their own rain saucers from recycled materials provided by Collective.

Presented by Collective

GANNET GAMES

AGES 5+
WORKSHOP



SCOTTISH SEABIRD CENTRE

SAT 9 – SUN 10 & SAT 23 – SUN 24 APR | 2PM | 90MINS | **£5**

Join the team at the Scottish Seabird Centre as they follow in the wingbeats of Georgie, a brave young gannet born on Bass Rock, as she overcomes challenges in becoming a fully-grown gannet. Take part in a number of fun, interactive beach games to sharpen your gannet survival skills such as nest building, endurance, and speed. You'll be amazed by the fascinating life cycle of a gannet, their incredible adaptations, and busy social lives, and come away with a newfound appreciation for this special species.

Presented by Scottish Seabird Centre

Image: Gareth Eastern

CAPTAIN GALILEO AND THE QUEST FOR GOLD

ALL AGES
SHOW



AROUND EDINBURGH | SEE WEBSITE FOR DETAILS

FREE

Join Captain Galileo and his long suffering ship's physicist as they try to prove that the Earth is round, learn to navigate by the stars and create their own telescopes in this new family show! They have set course for Edinburgh and could appear anywhere in the city, so check out our website for their full voyage log!

Presented by Matthew Jebb and Lisette Boxman

POUNDS AND PENCE – THE SCIENCE IN YOUR POCKET: COINS

AGES 8+
WORKSHOP



MUSEUM ON THE MOUND

MON 11 – SAT 23 APR | 10AM, 11AM & 12PM TUE – FRI

1PM & 2PM SAT | 50MINS | **FREE**

Using a wealth of fascinating material from the Royal Mint, explore the properties of the metals in our coins, learn how they are made and discover what makes our pound coins the most difficult to copy in the world. You'll even have the opportunity to strike your very own coin! An adapted version of this event can be enjoyed as a relaxed workshop at 10am on Mon 11 Apr.

Presented by Museum on the Mound and the Royal Mint Museum

POUNDS AND PENCE – THE SCIENCE IN YOUR POCKET: BANKNOTES

AGES 8+
WORKSHOP



MUSEUM ON THE MOUND

MON 11 – SAT 23 APR | 2PM, 3PM & 4PM TUE – FRI

3PM & 4PM SAT | 50 MINS | **FREE**

Using rarely seen specimens from Bank of Scotland – examine the complexity of banknote design – use microscopes, infrared and ultra-violet lights to explore the security features on banknotes and pit polymer against paper to test for strength and water-resistance. An adapted version of this event can be enjoyed as a relaxed workshop at 11am on Mon 11 Apr.

Presented by Museum on the Mound and the Royal Mint Museum

EXPLORE BEACH PEBBLES: WINDOWS TO THE WORLD

ALL AGES
ACTIVITY



BEACHES AROUND EDINBURGH | SEE WEBSITE

FOR DETAILS

WED 20 – SAT 23 APR | 10AM – 1PM | **DROP-IN | FREE**

Come and explore the pebbles on a local beach, and find out about the stories hidden in every pebble. We'll discover an amazing variety of different types of pebble, find out where they come from and what they tell us about Scotland's geology. We'll also explore why the beach looks the way it does, and how it might change in the next few decades with climate change.

Presented by Edinburgh Geological Society

WOODLAND NATURE DETECTIVES

AGES 7+
TOUR



ROSLINGLEN | MEET AT CAR PARK

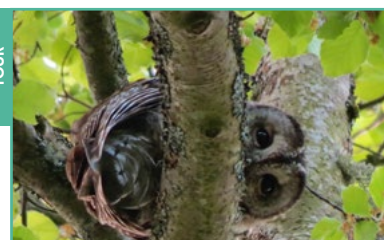
THU 21 APR | 10.30AM | 90MINS | **£10/£8**

Join naturalist and wildlife tracker **Dan Puplett** for an exploration of our amazing woodlands. Look for the tracks, signs and other clues left behind by wildlife as well as getting to know the incredible diversity of life in the woods from birds to beetles! Sharpen your senses and hone your nature detective skills while finding out how to help woodland wildlife.

Presented by Dan Puplett Nature Awareness

REWILD YOURSELF

AGES 12+
TOUR



ROSLINGLEN | MEET AT CAR PARK

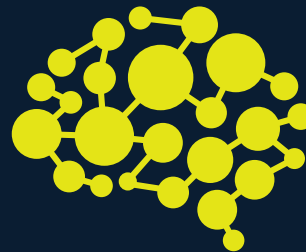
THU 21 APR | 2PM | 90MINS | **£10/£8**

Discover inspiring ways to connect to the natural world, boosting your own well-being and your ability to help rewild the planet. In this guided walk explore some fun mindfulness-based techniques that help us engage more deeply with the wild world around us. Learn inspiring ways that all of us can become naturalists, developing our curiosity and the observation skills so we can understand the many species that live alongside us, and the amazing connections between them.

Presented by Dan Puplett Nature Awareness

BIG IDEAS

TALKS AND DISCUSSIONS



Every revolution starts with a big idea – some sort of spark to rally around. Our programme of discussions will inspire ideas, inspire debate, and most importantly inspire hope. Join our experts as they discuss the climate revolution, the cycle of life and death, conservation, artificial intelligence, technology and the importance of storytelling. Check our website for BSL interpreted events.

Save £2 per ticket on our *Big Ideas* events at the National Museum of Scotland if booked before Sunday 13 March.
Call the Box Office or book online using the code **EARLYBIRD22**.

EVENTS FOR ADULTS

SATURDAY 9

G-LANDS:
AN OUT OF BODY EXPERIENCE, ARTIST TALK

DISCUSSION



SUMMERHALL | ANATOMY LECTURE THEATRE

SAT 9 APR | 1PM | 1 HOUR | FREE BOOKING REQUIRED

How did **Emily Fong** find herself inside the Centre for Regenerative Medicine, hospital clinics and surgery – observing the journey of the salivary gland from patient to laboratory? What might the salivary gland say of its experiences outside of the body and future aspirations? Join Emily for insight into the process of this unique residency alongside **Dr Elaine Emmerson**, whose research is developing regenerative strategies to restore salivary function for patients living with chronic dry mouth after treatment for head and neck cancer.

Presented by Summerhall and ASCUS Art and Science

BLACK BOX, ARTIST TALK

DISCUSSION



SUMMERHALL | ANATOMY LECTURE THEATRE

SAT 9 APR | 2.30PM | 1 HOUR | FREE

Co-founder and curator of pop-up cinema experience, BLACK BOX, artist **Louise Mackenzie** and invited guest will give a talk on the inspiration behind the BLACK BOX programme. Opening the door on the inner workings of scientific research, BLACK BOX is a curated programme of film works inspired by and expanding upon scientific themes, from artists and researchers involved in a creative and critical engagement with science. BLACK BOX is founded by artist **Louise Mackenzie** and scientist **Kasia Pirog**.

Presented by Summerhall and ASCUS Art and Science

SUNDAY 10

TAM DALYELL PRIZE LECTURE

DISCUSSION



OLD COLLEGE | PLAYFAIR LIBRARY

SUN 10 APR | 6PM | 90 MINS | FREE BOOKING REQUIRED

Endometriosis is a chronic pain condition that affects 1 in 10 women. There is no cure for the condition and because it can cause severe pain and other symptoms like fatigue and infertility it has a significant impact on wellbeing. **Prof Philippa Saunders** and **Prof Andrew Home** are determined to find new ways to tackle endometriosis. This year they share the University of Edinburgh's Tam Dalyell Prize for Excellence in Engaging the Public with Science in recognition of their work to include lived experience and the needs of people with endometriosis in their research. They'll share how they are combining their clinical and research expertise with women's experiences to find new ways to approach this devastating condition.

Presented by The University of Edinburgh

MONDAY 11

CLIMATE CHANGE: A TIME TRAVEL ADVENTURE

DISCUSSION



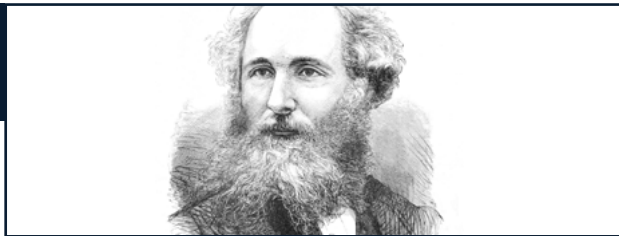
NATIONAL MUSEUM OF SCOTLAND | AUDITORIUM

MON 11 APR | 6PM | 1 HOUR | £10/£8

Join climate campaigner and author **Alice Bell** in a trip through time to the decisions, inventions and accidents which created the warming world we're living in today – and how it could have ended up quite differently. Beginning with the discovery of CO2 in Edinburgh, travel through the pioneering age of coal-powered steam technology to the early days of oil and the development of the car, tracing the history of climate science from Eunice Foote's discoveries in the 1850s to the first government briefings and the rise of mainstream media and public awareness through the late twentieth century. Climate sceptics, climate summits and climate science are all on the agenda as the audience is asked to vote: if you were there, what would you have done? Hosted by the National Museum of Scotland's **Dr Rebekah Higgitt**.

SCOTLAND'S EINSTEIN

DISCUSSION



NATIONAL MUSEUM OF SCOTLAND | AUDITORIUM

MON 11 APR | 8PM | 1 HOUR | £10/£8

James Clerk Maxwell has been described as Scotland's most famous scientist – yet in his homeland he's still far from a household name. In the mid-1800s his revolutionary work on the nature of light, and its deep connections to electricity and magnetism, paved the way for much of our 21st century technology – from bluetooth to broadband, from mobile phones to microwave ovens. As if that wasn't enough, his work even set the scene for Albert Einstein's theories of relativity, and helps us to understand the most exotic and energetic phenomena in our universe. Astronomer Royal **Catherine Heymans** and black hole hunter **Martin Hendry** join forces for a whistle stop tour through the life and legacy of *Scotland's Einstein*.

Supported by

JAMES CLERK MAXWELL FOUNDATION

TUESDAY 12

GAIA AT 50

DISCUSSION



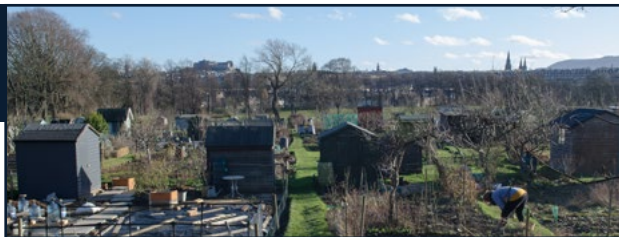
NATIONAL MUSEUM OF SCOTLAND | AUDITORIUM

TUE 12 APR | 6PM | 80 MINS | £10/£8

Half a century ago in 1972, the scientist, engineer and inventor James Lovelock published a theory that was to change our understanding of Earth. The Gaia hypothesis proposed that living organisms interact with each other and the inorganic processes of the planet to form a complex self-regulating system that sustains all life. The microbiologist Lynn Margulis soon joined Lovelock in developing his hypothesis by contributing details of how microorganisms affect the planetary environment. The notion of Gaia sparked a revolution in our conception of the interconnectedness between living creatures and earth's atmosphere, rocks and waters that has had enormous influence on subsequent generations of scientists. We bring together leading physicists, philosophers and climate scientists including **Prof Chris Rapley, Gaia Vince, Oliver Morton, Dr Stephan Harding** and **Prof Tim Lenton** to celebrate Gaia's legacy and its future.

COMMUNITY ACTION AGAINST CLIMATE CHANGE

DISCUSSION



ROYAL SOCIETY OF EDINBURGH | LECTURE THEATRE

TUE 12 APR | 6PM | 1 HOUR | FREE BOOKING REQUIRED

Climate change will continue to expose further inequalities within our society, disproportionately affecting those from marginalised communities. There is an urgent need to look at these prejudices and how these impact individuals and communities by working with communities to identify alternative solutions to tackle climate change in an affordable, community-focused and sustainable way. This discussion will involve community activists, RSE Fellows, and local policymakers who will share their reflections on community action against climate change.

Presented by the Royal Society of Edinburgh

THE SCIENCE OF GIVING

JOIN OUR EXPERIMENT AND EXPERIENCE THE SCIENCE OF GIVING!

HYPOTHESIS

The good feelings we have when we give are reflected in our biology. In a 2006 study, Jorge Moll and colleagues at the National Institutes of Health found that when we donate to charity, regions of the brain associated with pleasure, social connection and trust are activated, creating a 'warm glow' effect from endorphins being released in the brain.



Test the science of giving in 2022 by making a donation to Edinburgh Science – Scotland's longest running science education charity!

EXPERIMENT

Scan this QR code to make a donation.



...or text SCIENCE to 70470 to donate £5*.

CONCLUSION

Feel that wonderful warm glow knowing your donation will provide vital support and help deliver our community activities; education workshops in primary schools across Scotland; and our inspiring careers event showing young people the breadth of careers opportunities available to them.



For more information about our work as a charity and how you can support Edinburgh Science, please contact Hannah Schlesinger, our Director of Development and Marketing on hannahs@scifest.co.uk.

*Texts cost £5 plus one standard rate message, and will opt you in to hear more about our work and fundraising via telephone and SMS. If you'd like to give £5 but do not wish to receive marketing communications, text SCIENCEINFO to 70470.

Registered Charity no. SC003790.

BOOKING HOTLINE: 0131 226 0005

ONLINE BOOKING: SCIENCEFESTIVAL.CO.UK

WEDNESDAY 13

CIRCULAR CITIES

DISCUSSION



NATIONAL MUSEUM OF SCOTLAND | AUDITORIUM

WED 13 APR | 6PM | 80 MINS | £10/£8

By 2050, it is projected that most of the world's population will live in cities. But what will the metropolis of the 22nd century look, function and feel like? Twenty-minute neighbourhoods, green regeneration, planet-friendly power, active travel, and integrating circular economies into the heart of urban planning are on the table as urbanism expert **Daisy Narayanan**, the Ellen McArthur Foundation's **Dr Amelia Kuch** and Director of Sustainable Economics **Stefanie O'Gorman** set out how we might build the best cities of the future.

A.C. GRAYLING – FOR THE GOOD OF THE WORLD

DISCUSSION



NATIONAL MUSEUM OF SCOTLAND | AUDITORIUM

WED 13 APR | 8PM | 1 HOUR | £10/£8

Philosopher and author **A.C. Grayling** considers three of the biggest challenges facing the world today – climate change, the rate of development in high-impact technologies, and the global deficit of social and economic justice. Both our problems and our technologies are outstripping our moral and current political capacity to deal with them. As every day brings new stories about extreme weather events, spyware, lethal autonomous weapons systems, and international political-economic, health and human rights imbalances, can human beings agree on a set of values that will allow us to confront the threats facing the planet, or will we simply continue with our disagreements and antipathies as we collectively approach greater problems and instability, and even our possible extinction? Hosted by **Prof Raymond Tallis**.

THURSDAY 14

HOW ROBOTS WILL HELP US IN THE FUTURE

DISCUSSION



NATIONAL MUSEUM OF SCOTLAND | AUDITORIUM

THU 14 APRIL | 6PM | 1 HOUR | £10/£8

Take a voyage into the future with CEO of the new National Robotarium **Stewart Miller** alongside Heriot-Watt Professors **Lynn Baillie** and **Thusha Rajendran** as they explain how robots will help us stay safe, healthy and productive in the decades to come. Find out about the latest research from the world-leading robotics and artificial intelligence facility.

Presented by Heriot-Watt University

TICKETS TO THE ARK

DISCUSSION



NATIONAL MUSEUM OF SCOTLAND | AUDITORIUM

THU 14 APRIL | 8PM | 1 HOUR | £10/£8

The wildlife conservation movement can boast of many triumphs, such as saving the Guam rail, red wolf and Javan rhinoceros from extinction. But both planetary and practical resources are limited – we can't save everything. Sometimes we face tough trade-offs and are forced to choose. Would you be willing to lose a parasitic worm to save a bird? And what price would you pay to protect the honeybee? Ecologist and author **Rebecca Nesbit** goes head-to-head with evolutionary biologist **Prof Chris Thomas** in an interactive debate in which the audience will be able to vote to choose which species get the coveted tickets to the ark. Hosted by comedian **Siân Bevan**.

SATURDAY 16

THE ROOTED SEA, ARTIST TALK

DISCUSSION



ONLINE

SAT 16 APRIL | 1PM | 1 HOUR | FREE

The Rooted Sea: Halophytic Futures is an interdisciplinary inquiry into the fragile and endangered coastal ecosystems and wetland habitats of India and Scotland, led by multidisciplinary artist **Sonia Mehra Chawla** and **Miriam Walsh** (ASCUS Art and Science) in collaboration with Ray Interactive. This event includes a film teaser screening, followed by an artist's talk and conversation between Sonia, Miriam and **Dr Keira Tucker** (ASCUS Lab). Hear from the artist as she asks 'How can we build a system that puts care-based labour at the core of an entangled more-than-human biosphere?'

Presented by Summerhall and ASCUS Art and Science

TUESDAY 19

VERY SHORT INTRODUCTION TO PLANETARY SYSTEMS

TALK



NATIONAL MUSEUM OF SCOTLAND | AUDITORIUM

TUE 19 APR | 1PM | 1 HOUR | £7/£5

Not long ago, the Solar System was the only example of a planetary system – a star and the bodies orbiting it – that we knew. Now, we know thousands of planetary systems, and have even been able to observe them at the moment of their birth. Join **Prof Raymond T. Pierrehumbert**, author of *Planetary Systems: A Very Short Introduction* on an exploration through the grand sweep of time, from the moment galaxies begin to form after the Big Bang to trillions of years in the future.

Presented by Oxford University Press

TRUST IN ME

DISCUSSION



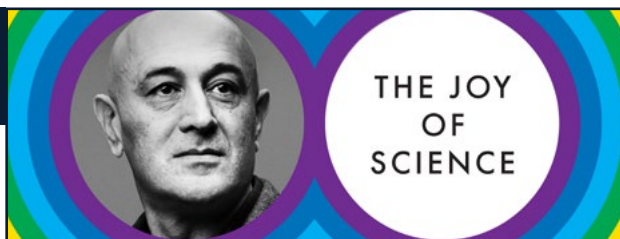
NATIONAL MUSEUM OF SCOTLAND | AUDITORIUM

TUE 19 APR | 6PM | 80 MINS | £10/£8

'Who am I?' is one of the most fundamental questions of all. Artificial intelligence and evolving technology is causing us to think differently about who we are and who we might become, but the promised opportunities of digital identity also throw up many challenging and important questions about ownership, privacy and control. Join **Tracey Follows** – professional futurist and author of *The Future of You: Can Your Identity Survive 21st Century Technology?* and AI-human interface expert **Kate Devlin** as they delve into the dreams and nightmares of our digital future. Hosted by Ethics Champion for the Artificial Intelligence Foundry **Andy Miah**.

JIM AL-KHALILI: TOWARDS A RATIONAL LIFE

DISCUSSION



NATIONAL MUSEUM OF SCOTLAND | AUDITORIUM

TUE 19 APR | 8PM | 1 HOUR | £10/£8

Today's world is unpredictable and full of contradictions, and navigating its complexities while trying to make the best decisions is far from easy. Join acclaimed physicist and BBC presenter **Prof Jim Al-Khalili** as he sets out eight short lessons on how to unlock the clarity, empowerment, and joy of thinking and living a little more scientifically. Discussing the nature of truth and uncertainty, the role of doubt, the importance of evidence-based thinking, and more, Al-Khalili shows how the powerful ideas at the heart of the scientific method are deeply relevant to the complicated times we live in and the difficult choices we make. Hosted by **Prof Sheila Rowan** Chief Scientific Adviser for Scotland.

WOMEN IN



Jocelyn Bell Burnell



Patricia Bath



Marie Curie



Dian Fossey

Edinburgh Science Festival is proud to champion the achievements of women in science and science communication, and strive for a balanced representation of gender in our programming. We continue to make a dedicated effort to increase the number of women who participate in the Science Festival, and we are delighted that 60% of the artists and speakers who took part in the 2021 Festival identify as women.

The Edinburgh Science Festival has always strived to promote, encourage and inspire the next generation of women into STEM fields by showing them the amazing women already in STEM via a series of panel events, workshops, exhibitions and discussions. Here are just some of the highlights from this year's programme:

P.24	CLIMATE CHANGE: A TIME TRAVEL ADVENTURE MON 11 APR 6PM NATIONAL MUSEUM OF SCOTLAND
P.26	CIRCULAR CITIES WED 13 APR 6PM NATIONAL MUSEUM OF SCOTLAND
P.36	PHENOMENAL FUNGI WED 13 APR 8PM ASSEMBLY ROXY
P.28	FOLKLORE, FABLE AND FACTS WED 20 APR 6PM NATIONAL MUSEUM OF SCOTLAND
P.28	EDINBURGH MEDAL ADDRESS WED 20 APR 6PM CITY CHAMBERS
P.30	ANIMAL, VEGETABLE, CRIMINAL FRI 22 APR 8PM NATIONAL MUSEUM OF SCOTLAND

WEDNESDAY 20

VERY SHORT INTRODUCTION TO FORENSIC SCIENCE

AGES 16+

TALK



NATIONAL MUSEUM OF SCOTLAND | AUDITORIUM

WED 20 APR | 1PM | 1 HOUR | £7/£5

What happens at a crime scene? How does DNA profiling work? How can it help solve crimes that happened 20 years ago? In forensic science, a criminal case can often hinge on a piece of evidence such as a blood trace, a shoe mark, fingerprint or a CCTV image. Join **Prof Jim Fraser**, a forensic scientist with over forty years' experience and author of *Forensic Science: A Very Short Introduction*, as he introduces the concept of forensic science.

FOLKLORE, FABLE AND FACTS

DISCUSSION



NATIONAL MUSEUM OF SCOTLAND | AUDITORIUM

WED 20 APR | 6PM | 1 HOUR | £10/£8

An American poet Muriel Rukeyser once said 'The universe is made of stories, not of atoms'. The truth, of course, is that it's made of both. Since before the dawn of human history, stories have been used to explain the world around us and spin order from the chaos of experience, from the cosmologies of the ancient world to the encoding of natural lore and historical events in folksong. This event brings together award-winning storytellers **Taffy Thomas** and **Mara Menzies** along with young traditional folksinger **Mossy Christian** to tell tales from their traditions and explore the threads of truth woven within. Hosted by the Scottish Storytelling Centre's **Donald Smith**.

EDINBURGH MEDAL ADDRESS: CONSERVATION AND ONE HEALTH

SPECIAL EVENT



CITY CHAMBERS | COUNCIL CHAMBERS

WED 20 APR | 7PM | 1 HOUR | £12/£10

We are currently in the midst of a mass extinction event with, according to the United Nations (UN), species extinction accelerating 1,000 times faster than at any other point in human history and over one million species currently facing extinction.

In 2020 the UN Decade of Ecosystem Restoration commenced and this year the Post-2020 Global Biodiversity Framework is due to be adopted at the UN Convention on Biological Diversity Conference of Parties 15 (COP15), it is a perfect time to honour one particularly inspiring example of biodiversity conservation.

The Edinburgh Medal is a prestigious award given each year to men and women of science and technology who have made a significant contribution to the understanding and wellbeing of humanity. The 2022 Edinburgh Medal is awarded to Ugandan veterinarian, pioneer in community-led wildlife conservation, subject of the BBC documentary *Gladys the African Vet*, and Founder and Chief Executive Officer of the Conservation Through Public Health, **Dr Gladys Kalema-Zikusoka**. Her work improved the quality of life of people and wildlife to enable them to coexist in and around protected areas in Africa; she is a pioneer in community-led 'One Health' approaches to conservation exploring and supporting the delicate interplay between humans and wildlife.

Join her to hear of her inspiring work improving community health and wellbeing to help the conservation of gorillas and other wildlife in Uganda and how acknowledgement of the interconnectedness of wildlife and human health is essential to ensuring planetary health and achieving a climate-safe, biodiverse and prosperous future for us all.

Image: Jo-Anne McArthur

Supported by



PREVIOUS RECIPIENTS

- | | |
|---------------------------------|--------------------------------|
| 2021 Prof Heidi Larson | 2004 Prof Steven Rose |
| 2020 Sunita Narain | 2003 Prof Wang Sung |
| 2019 Christiana Figueres | 2002 Dr Lise Kingo |
| 2018 Prof Cordelia Fine | 2001 Sir John Sulston |
| 2017 Prof Peter Piot | 2000 Prof Lynn Margulis |
| 2016 Kevin Govender and the IAU | 1999 Prof Jocelyn Bell Burnell |
| 2015 Mary Midgley | 1998 Sir David Attenborough |
| 2014 Prof Mary Abukutsa-Onyango | 1997 Prof Amartya Sen |
| 2013 Prof Peter Higgs and CERN | 1996 Prof Richard Levins |
| 2012 Dr James Hansen | 1995 Sir John Crofton |
| 2011 Prof Carl Djerassi | 1994 Prof Manuel Patarroya |
| 2010 Sir Alex Jefferies | 1993 Prof Wangari Maathai |
| 2009 Prof Jonathan Beckwith | 1992 Prof Heinz Wolff |
| 2008 Prof Chris Rapley | 1991 Prof Jane Goodall |
| 2007 Dr Richard Horton | 1990 Prof Stephen J Gould |
| 2006 Prof James Lovelock | 1989 Prof Abdus Salam |
| 2005 Prof Colin Blakemore | |

DEATH AND BEYOND



DISCUSSION

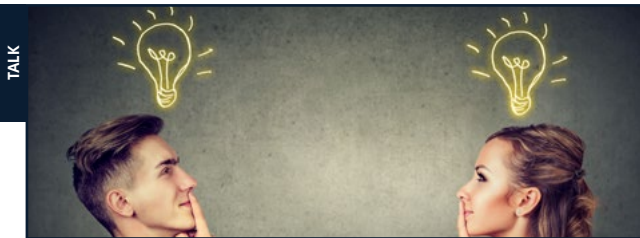
NATIONAL MUSEUM OF SCOTLAND | AUDITORIUM

WED 20 APR | 8PM | 80 MINS | £10/£8

Few of us will ever knowingly see the inside of a mortuary, but the story of the body's journey after death is as fascinating and revealing as it is macabre. **Cat Irving**, Human Remains Conservator for Surgeons' Hall Museums, joins forces with forensic pathologist and author of *The Seven Ages of Death* **Dr Richard Shepherd** in an exploration of how what we leave behind can tell the story of how we lived. Hosted by cultural historian **Dr Paul Craddock**.

THURSDAY 21

VERY SHORT INTRODUCTION TO INTELLIGENCE



TALK

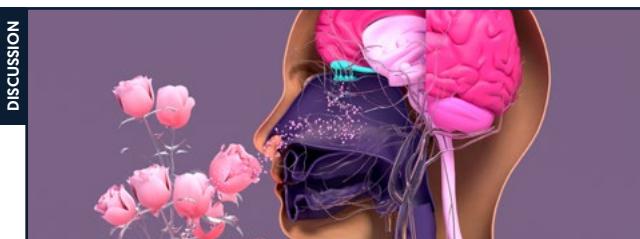
NATIONAL MUSEUM OF SCOTLAND | AUDITORIUM

THU 21 APR | 1PM | 1 HOUR | £7/£5

Some people are more clever than others. This everyday observation is the subject of an academic field that is often portrayed as confused and controversial when, in fact, the field of intelligence research holds some of psychology's best-replicated findings. Join **Prof Ian Deary** to explore what psychologists have discovered about how and why people differ in their thinking powers, and whether it matters. He will tackle some of intelligence's much-asked-about questions, such as whether larger brains are smarter, and how environments and genes contribute to differences in intelligence.

Presented by Oxford University Press

CONSCIOUSNESS: MACHINES OF THE MIND



DISCUSSION

NATIONAL MUSEUM OF SCOTLAND | AUDITORIUM

THU 21 APR | 6PM | 1 HOUR | £10/£8

Prof Anil Seth, neuroscientist and author of *Being You*, tackles the long-standing question of consciousness – how, and why, do billions of firing neurons create the extraordinary, irreplicable and individual experience of being alive? Is what we call reality just a controlled hallucination generated by the sophisticated 'prediction machine' inside our heads, what does this mean for our understanding of the frontiers and fractures of the 'self', and how can we understand and measure the differences in sensory perception between individuals? Join Anil for an investigation into the heart of who we are and hear about the forthcoming *Dreamachine* project, a new immersive experience inspired by Brion Gysin's pioneering 1959 invention that will be used to undertake the largest study of perceptual variance conducted to date. Hosted by vision scientist **Ben Craven**.



DELEGATE PROGRAMME

ARE YOU PASSIONATE ABOUT ENGAGING PEOPLE WITH SCIENCE?

Our *EdSciFest Delegate Programme* is the perfect chance to peek behind the scenes of the Science Festival. Whether you're a science communicator, public engagement professional, programme manager or working in the creative industries, our 2022 *Delegate Programme* can help with your programming, career development and science engagement needs.

We're offering two options: digital only, or an in-person package which will include live venue tours, discounted tickets and the chance to chat to our experienced staff about how they put together one of the leading science engagement events in the world. As we understand that networking can also be an important part of your festival experience, we'll also have an exclusive *Science Salon*: a relaxed opportunity to meet with other folk who want to bring the joy of science to new audiences.

See website for details and booking information

sciencefestival.co.uk/delegate-programme

Supported by the PLACE (Platforms for Creative Excellence) Programme, a partnership between the Scottish Government – through Creative Scotland – the City of Edinburgh Council and the Edinburgh Festivals

Scottish Government
Riaghaltas na h-Alba
gov.scot

EDINBURGH
THE CITY OF EDINBURGH COUNCIL

CREATIVE LAND SCOT
ALBA | CHRUTHACHAIL

THURSDAY 21

MINI BUT MIGHTY: SOME OF SCOTLAND'S RAREST SPECIES



DISCUSSION

ROYAL BOTANIC GARDEN EDINBURGH | LECTURE THEATRE

THU 21 APR | 6PM | 90 MINS | £6

Despite being fundamental to life as we know it, plants and invertebrates are often underappreciated and underrepresented within species conservation efforts, but not today! Meet the experts working to save some of Scotland's rarest and least known species: the alpine sow-thistle and the pine hoverfly.

Presented by Royal Botanic Garden Edinburgh and the Royal Zoological Society of Scotland

PREPARING FOR EXTREME WEATHER EVENTS



DISCUSSION

NATIONAL MUSEUM OF SCOTLAND | AUDITORIUM

THU 21 APR | 8PM | 90 MINS | £10/£8

Action is underway to limit global temperature rises to a target of 2 degrees, but will that be enough? Even at the current temperature change of 1.4 degrees, we are already experiencing more extreme and unpredictable weather in Scotland and globally which is impacting on our cities and infrastructure. In this discussion, Arup Director **David Wilkes** will explore the role of engineers, economists and planners in predicting the scale of climate change, and how we can design our homes, transportation and energy systems to ensure they are ready for this future.

Supported by



FRIDAY 22

DICTATORSHIP, REVOLUTION AND TECHNOLOGY



TALK

NATIONAL MUSEUM OF SCOTLAND | AUDITORIUM

FRI 22 APR | 6PM | 1 HOUR | £10/£8

In August 2020, after 26 years in power - 'Europe's last dictator' Alexander Lukashenko held his fifth presidential election. The official result was very similar to those of prior votes: an over-whelming victory for the incumbent, but the response from the people of Belarus was very different. Hundreds of thousands took to the streets in protest, hackers attacked the state's IT infrastructure, and smartphones allowed the world to bear witness to the state's repressive regime. In this talk **Ken McBain** explores the powers and pitfalls of modern communications technology for both regime and rebellion in the troubled nation of Belarus, and asks what effect the evolution of these technologies might have in similar situations around the world.

ANIMAL, VEGETABLE, CRIMINAL



TALK

NATIONAL MUSEUM OF SCOTLAND | AUDITORIUM

FRI 22 APR | 8PM | 90 MINS | £10/£8

We humans have never been good at sharing the planet. In the past, when animals broke the rules, they might be given lawyers and put on trial. But what's the solution now, as our continually-expanding species don't like it when nature gets in our way? Join best-selling US science author **Mary Roach** on a global odyssey reporting from the frontline of human-animal conflict, taking in elephant diplomats, monkey mimics and the aerial vandals of the Vatican through bear-busy back alleys in Aspen and leopard-terrorised hamlets in the Himalayas as we discover how new technologies might offer hope for a compassionate coexistence.

Supported by



SUNDAY 24

SCIENCE FESTIVAL CHURCH SERVICE



SPECIAL EVENT

ST GILES' CATHEDRAL

SUN 24 APR | 11AM | 1 HOUR | FREE

The Lord Provost of Edinburgh and the Minister of St Giles' Cathedral invite you to the annual church service celebrating the Edinburgh Science Festival. This year's featured speaker is science fiction author, **Kenneth MacLeod**, who will talk about the theme of scientific revolutions.

Image: Peter Blackhouse

EXHIBITIONS AND FILM

Discover our programme of exhibitions and films, and see how the world of science can be explored and reinterpreted through art.

Feel empowered by our *Consumed* exhibition to make changes that will help the planet, and explore the information that runs the world in *DataSphere*. Our *Wild Scotland* photography exhibition at Portobello Promenade showcases the stories of the people, flora and fauna of Scotland that are facing the climate emergency.

Bioverse is a series of visual arts exhibitions by Summerhall and ASCUS Art and Science that work across the fields of art, science and technology to explore the dynamic biological revolutions within our natural world.

WILD SCOTLAND

EXHIBITION



PORTOBELLO PROMENADE

SAT 19 MAR–SUN 24 APR | DAILY | FREE

Celebrate the power of nature, our relationship with it and our responsibility for it in this free, large-scale photography exhibition. With a heartfelt plea to protect our natural heritage, in *Wild Scotland* we showcase stories of how the remarkable people, flora and fauna of Scotland are facing important choices, adapting to our changing world in the face of the climate emergency and playing their part in trying to ensure a successful and sustainable future for us all.

Image: *Otter*, Scottish Sisters

Supported by



**CULTURE
& BUSINESS
FUND
SCOTLAND**

FORTH LINES

EXHIBITION



ROYAL BOTANIC GARDEN EDINBURGH | JOHN HOPE

GATEWAY

SAT 9–SUN 24 APR | 10AM–5.45PM | FREE

Explore the Firth of Forth shoreline through the eyes of people who live and work around it. Over the past year, people from the Fife and Lothian coasts have come together to create an illustrated story through 184 pieces of crafted calico – follow the entire *Forth Lines* coast for the first time at the Royal Botanic Garden Edinburgh.

Presented by Royal Botanic Garden Edinburgh

DATASPHERE



NATIONAL MUSEUM OF SCOTLAND | GRAND

GALLERY

SAT 9–SUN 24 APR | 10AM–5PM | DROP-IN | FREE

Our lives have been transformed by the power of data, but how often do we look past the screen and see what fuels all this information? From smartphones to speakers, healthcare to homes, data is everywhere. Send, swipe and scroll in this multi-media exploration of the information driving our world. Explore personal, local and global reliance on data through this series of engaging and interactive installations whilst asking yourself – is access to all of this data always a good thing? *DataSphere* features artwork from Scottish artists **Alan Brown** and **Silent Chaos** and a rotating schedule of exciting drop in events including *MicroCoders*, supported by Digital Xtra Fund – check out our website for details.

Presented in partnership with the National Museum of Scotland

Supported by the PLACE (Platforms for Creative Excellence) Programme, a partnership between the Scottish Government – through Creative Scotland – the City of Edinburgh Council and the Edinburgh Festivals



HMS CHALLENGER LOG EXHIBITION



DYNAMIC EARTH | OUTDOOR TERRACE

SAT 9–SUN 24 APR | 10AM–4PM | DROP-IN | FREE

On the 150th anniversary of the Challenger Expedition, marvel at the amazing discoveries it made in this outdoor exhibition of the gorgeous illustrations from the ship's original reports.

Presented by Dynamic Earth

CONSUMED



THE MOUND PRECINCT | THE MOUND PRECINCT

SAT 9–SUN 24 APR | DAILY | FREE

There are over 7 billion people on Earth and our ever-increasing collective thirst for 'stuff' is detrimentally affecting the way we live. But there is hope. Through eating, travelling and using energy differently, changing the way we shop and share, and using our consumer power, we have hope for the future. *Consumed* is a major exhibition that challenges the way we do things and gives you practical answers to your burning consumer questions. By empowering ourselves to take action and realise the power we have in our everyday lives, *Consumed* will show you how we can live well without it costing us the Earth. *Consumed* is a major exhibition that challenges the way we do things and gives you practical answers to your burning consumer questions.

Supported by



Developed with support from Creative Scotland through the Scottish Government's Festivals Expo Fund



ELEMENTAL



SUMMERHALL | OLD LAB

SAT 9–SUN 24 APR | VISIT WEBSITE FOR TIMES | £3

The Ancient Greeks saw the world comprised of four elements – Earth, Air, Fire and Water (with philosopher Aristotle throwing in a fifth, Aether, for good measure) – that were thought to explain the nature and complexity of all matter and to be essential to life. Times have changed. We now have atomic theory, with atoms classified into more than a hundred chemical elements. Yet echoes of the old theory reverberate to this day and scientists admit we still don't know everything; there is still some mystery in our world. Interact with the elements on this magical multisensory journey of discovery through an intriguing, immersive digital world in which magic meets alchemy and alchemy meets science. Play, discover and create with your fellow explorers.

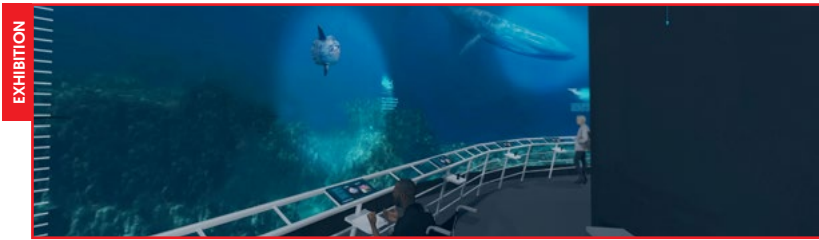
Presented by BrightSide Studios in association with Edinburgh Science. BrightSide Studios connect the space between art and technology to create powerful human experiences. They specialise in designing immersive environments and installations that bring stories of all sorts to vibrant life. They have a passion for playing with illusion and visual wonderment to create emotional connections with their audience.

Supported by



Developed with support from Creative Scotland through the Scottish Government's Festivals Expo Fund

DISCOVERING THE DEEP



DYNAMIC EARTH | DISCOVERING THE DEEP GALLERY

SAT 9–SUN 24 APR | 10AM–4PM | DROP-IN | FREE WITH ADMISSION TO DYNAMIC EARTH

Explore the deep sea through Dynamic Earth's brand-new gallery, opening April 2022. Meet Scotland's pioneers of marine science, including Edinburgh's own Charles Wyville Thomson, whose exploration of Scotland's marine environments in the 19th century launched the modern science of oceanography. Dive into the depths of the sea and witness the incredible habitats and denizens of the deep, including Scotland's very own cold-water coral reefs. When you resurface you can meet the scientists of today and explore the equipment they use to understand and explore this massive environment, so deeply connected to the health and wellbeing of us all.

Presented by Dynamic Earth

A ROSE BY ANY OTHER NAME...



ROYAL BOTANIC GARDEN EDINBURGH

INVERLEITH HOUSE

SAT 9 APR–SUN 24 APR | 10.30AM–5.30PM (LAST ENTRY 5.15PM) | DROP-IN | FREE

Obsession, Threat and the Riddle of Rhododendrons. Coinciding with the peak flowering period of RBGE's rhododendrons, this exhibition reveals our significant history of collecting, researching and cultivating this genus, including work by contemporary artists, historical botanical illustration, photography and objects from our archive.

Presented by Royal Botanic Garden Edinburgh

WORLDS OF CARE



UNIVERSITY OF EDINBURGH

MEDICAL SCHOOL QUAD

SAT 9–SUN 24 APR [WED TO SUN] | 10AM–4PM | FREE

Over the course of our lives, most of us will care for others or be cared for. This outdoor exhibition reflects on the care we give and receive, and how we respond to the challenges of an ageing population. Through photos and a 'care tree', explore how care is commonly portrayed, perceived and experienced, and journey through different worlds of care. Visit Wed–Sun and meet the researchers who's work was used in the exhibition – see website for times.

Presented by The University of Edinburgh

VACCINE VOYAGES



UNIVERSITY OF EDINBURGH

NORTH MEADOW WALK

SAT 9–SUN 24 APR | DROP-IN | FREE

Maybe you've heard about Edward Jenner and his cows as the beginning of modern vaccines, but did you know how vaccination went global? In 1803, a Spanish doctor used orphans and enslaved children to incubate the smallpox vaccine in their own bodies, travelling through the Caribbean, Mexico, the Philippines, China, and back to Europe. This outdoor exhibition explores that voyage, literally the first global health mission, showing how the horrors of the Atlantic slave trade were entwined with the vaccine revolution.

Presented by The University of Edinburgh

DESIGN WITH DATASPHERE STUDENT SHOWCASE



INSPACE AT DESIGN INFORMATICS

SAT 9–SUN 24 APR | 9AM–7PM | DROP-IN | FREE

Design with Data is a postgraduate course taught at the University of Edinburgh as part of the Design Informatics Masters programme and aims to investigate creative and novel ways to engage with data, its cultural contexts, conceptual framing and socio-cultural understanding. This year, in collaboration with Edinburgh Science, the students have been set a challenge to visualise data based on the themes and topics around our *DataSphere* exhibition. Come and see their artwork in this innovative and interactive showcase.

Presented by Design Informatics

SEEING THE INVISIBLE



ROYAL BOTANIC GARDEN EDINBURGH | GARDENS

SAT 9–SUN 24 APR | 10AM–5.45PM | DROP-IN | FREE

Seeing the Invisible is the first exhibition of its kind to be developed in collaboration between botanical gardens and art institutions from around the world. The exhibition features 13 augmented reality (AR) works by artists including: **Ai Weiwei, Issac Julian CBE, Daito Manabe, El Anatsui and Refik Anadol.**

The exhibition's themes centre around our relationship with nature and explore the boundaries and connections between art, technology, and nature. Download the app for free on to a smartphone or tablet on iOS or Android and enjoy a new experience of engaging with contemporary art in a unique and thought-provoking setting.

Presented by Royal Botanic Garden Edinburgh

UNDER PRESSURE: THE OCEAN SHOW PLANETARIUM LATE



DYNAMIC EARTH | PLANETARIUM

THU 14–SAT 16 & THU 21–SAT 23 APR | 7PM | 50 MINS

£12/£10

Join us for a special evening performance of Dynamic Earth's brand-new, live planetarium show for 2022, *Under Pressure*. Come with us as we take a deep dive into the global ocean; we'll explore dark, hidden ecosystems and see the collective efforts of hundreds of marine scientists and engineers, striving to learn all we can about these enigmatic worlds. We'll also ponder on our ability to shape the future of this global ocean we all depend on. For these evening events you will see a special extended version of the show – don't miss it!

Presented by Dynamic Earth

THE OVERLAY



FILM

INSPACE AT DESIGN INFORMATICS

FRI 22–SUN 24 APR | DAILY | FREE

The Overlay by artist **Inés Cámara Leret** is an exploration into the entanglements that arise when attempting to make global climate data tangible. The film reflects critically and playfully on the gaps that arise when reconciling these global narratives with local environments. Part of The New Real Observatory, *The Overlay* explores the impact of technology in both enabling and hindering our understanding of, and relationship with, the current ecological crisis. The film will be presented across multiple screens, visible from street level.

Presented by The New Real, Edinburgh Futures Institute, University of Edinburgh

EDINBURGH CONSERVATION FILM FESTIVAL



FILM

NATIONAL MUSEUM OF SCOTLAND | AUDITORIUM

SAT 23 APR | 2PM | 90MINS | FREE

The Edinburgh Conservation Film Festival is a celebration of conservation stories from around the world that will inspire, engage, and inform you about a few of the multitude of projects helping to protect the world's biodiversity. The theme of this year's film festival is 'A world living in harmony' and it will host a selection of short films, each telling a story to instil hope. Join us for an afternoon discovering projects and people that are helping preserve our global biodiversity through science, passion and film.

Presented by Edinburgh Conservation Science (EcoS)



BIOVERSE AT SUMMERHALL

Based in the former Royal Dick School of Veterinary Studies, Summerhall is a major creative venue for the arts with a host of performance, gallery and workshop spaces, as well as a welcoming cafe and bar.

LAUNCH EVENT: FRI 8 APR, 6PM–9PM | SUMMERHALL GALLERY BAR

OPEN SATURDAY 9 APRIL–THURSDAY 9 JUNE, WED–SUN 12PM–6PM

1 SUMMERHALL, EDINBURGH, EH9 1PL

During the Science Festival enjoy Summerhall and ASCUS Art and Science's *Bioverse* series, a visual arts exhibition that works across the fields of art, science and technology. This series of exhibitions explores the dynamic biological revolutions within our natural world, with a particular focus on healthcare systems, coastal wetlands and our intertwined relationship with the microbial world.



SUMMERHALL
Open Minds Open Doors



ASCUS
ART & SCIENCE

BLACK BOX

FILM



SUMMERHALL | CORNER GALLERY

SAT 9 APR–THU 9 JUN | 12–6PM | DROP-IN [WED TO SUN] | FREE

Is kinship more than family? What kinds of relations do we develop through and beyond the body? *BLACK BOX* at Summerhall presents *KINSHIP* – a curated film programme that explores revolutions of life through the relationships that form between us and the world around us, finding forms of kinship within the body, through family and beyond. *BLACK BOX* is founded by artist **Louise Mackenzie** and scientist **Kasia Pirog**.

Presented by Summerhall and ASCUS Art and Science

G-LANDS: AN OUT OF BODY EXPERIENCE

EXHIBITION



SUMMERHALL | MEADOWS GALLERIES

SAT 9 APR–THU 9 JUN | 12–6PM | DROP-IN [WED TO SUN] | FREE

A collaboration between artist **Emily Fong** and **Dr Elaine Emmerson** from the Centre for Regenerative Medicine, in partnership with ASCUS Art and Science. Although a lifesaving treatment for head and neck cancer, radiotherapy damages salivary glands, causing chronic dry mouth. Dr Emmerson's research is developing regenerative strategies to restore salivary gland function. Experience the journey the salivary gland takes from the patient to the laboratory. How incredible that a surgeon, scientist, or member of the public can engage with someone else's organ.

Presented by Summerhall and ASCUS Art and Science

THE ROOTED SEA

EXHIBITION



SUMMERHALL

WAR MEMORIAL AND SCIENNES GALLERIES

SAT 9 APR–THU 9 JUN | 12–6PM | DROP-IN [WED TO SUN] | FREE

The Rooted Sea: Halophytic Futures is an interdisciplinary inquiry into the fragile and endangered coastal ecosystems and wetland habitats of India and Scotland, and their vital role in building resilience to climate change. The project is led by multidisciplinary artist and researcher **Sonia Mehra Chawla** and creative producer **Miriam Walsh** (ASCUS Art and Science) in collaboration with Ray Interactive. By linking the changing global landscapes of our planet, the project builds a stronger understanding of the role halophytic plants, micro-organisms and carbon sinks play, as part of the climate change story.

Presented by Summerhall and ASCUS Art and Science

G-LANDS: AN OUT OF BODY EXPERIENCE, ARTIST TALK

DISCUSSION



SUMMERHALL | ANATOMY LECTURE THEATRE

SAT 9 APR | 1PM | 1 HOUR | FREE

How did **Emily Fong** find herself inside the Centre for Regenerative Medicine, hospital clinics and surgery – observing the journey of the salivary gland from patient to laboratory? What might the salivary gland say of its experiences outside of the body and future aspirations? Join Emily for insight into the process of this unique residency alongside **Dr Elaine Emmerson**, whose research is developing regenerative strategies to restore salivary function for patients living with chronic dry mouth after treatment for head and neck cancer.

Presented by Summerhall and ASCUS Art and Science

BLACK BOX, ARTIST TALK

DISCUSSION



SUMMERHALL | ANATOMY LECTURE THEATRE

SAT 9 APR | 2.30PM | 1 HOUR | FREE

Co-founder and curator of pop-up cinema experience, *BLACK BOX*, artist **Louise Mackenzie** and an invited guest will give a talk on the inspiration behind the *BLACK BOX* programme. Opening the door on the inner workings of scientific research, *BLACK BOX* is a curated programme of film works inspired by and expanding upon scientific themes, from artists and researchers involved in a creative and critical engagement with science. *BLACK BOX* is founded by artist **Louise Mackenzie** and scientist **Kasia Pirog**.

Presented by Summerhall and ASCUS Art and Science

THE ROOTED SEA, ARTIST TALK

DISCUSSION



ONLINE

SAT 16 APRIL | 1PM | 1 HOUR | FREE

The Rooted Sea: Halophytic Futures is an interdisciplinary inquiry into the fragile and endangered coastal ecosystems and wetland habitats of India and Scotland, led by multidisciplinary artist **Sonia Mehra Chawla** and **Miriam Walsh** (ASCUS Art and Science) in collaboration with Ray Interactive. This event includes a film teaser screening, followed by an artist's talk and conversation between Sonia, Miriam and **Dr Keira Tucker** (ASCUS Lab). Hear from the artist as she asks 'How can we build a system that puts care-based labour at the core of an entangled more-than-human biosphere?'

Presented by Summerhall and ASCUS Art and Science

SOCIABLE SCIENCE

If you enjoy your science with some flare, then you'll love our social science evenings!

Why should kids have all the fun – party in the City Art Centre and try our some hands-on experiments as we turn our flagship science wonderland over to the adults for one special night only with *Science Festival Late*, or enjoy our *DataSphere* exhibition after hours with *Data After Dark*.

Combining storytelling, comedy and interactive elements, our science cabarets are a guaranteed great night out. Explore the weird and wonderful world of *Phenomenal Fungi*, while enjoying some canapes and mushroom cocktails provided by wild food experimenters Buck and Birch. Learn about the fascinating science of fabrics and textiles in *The Material World*, and try your hand at sustainable cocktail making in *Climate Cocktails*. Join us for a light-hearted evening enjoying the *Sensational Stories of Science*, as a storyteller, a scientist and a comedian share the marvellous, tragic and fascinating stories behind some of the world's most fantastic discoveries.

These events are strictly over 18s only.

BELLFIELD
BREWERY
EST. 2015
OF THE FUTURE



A REVOLUTION FOR THE FREE!

Bellfield Brewery are leading the charge in creating award-winning beer that tastes great and can be enjoyed by everyone – including vegans and those gluten-free. We are delighted to have them as the official beer partner for this year's Edinburgh Science Festival. You can enjoy their beers at our *Science Festival Late* and *Data After Dark* events.

Visit their taproom in central Edinburgh for the *Bellfield Brewery Tour & Tasting* [pg. 22]. It is also available for private and corporate events and fresh beer from the brewery right next door.

See bellfieldbrewery.com/pages/events for dates, times and booking information.

SCIENCE FESTIVAL LATE

AGES 18+
SPECIAL EVENT



CITY ART CENTRE

THU 7 APR | 7.30PM | 3 HOURS | £12/£10

Get ready to party as we turn our flagship children's venue over to adults for one very special night. Dive straight into the night with *Ocean Constructors*, prop up our *Blood Bar* and corral yourself for the *Secret Life of Coral*. There is blood, bees and beers aplenty, so don't miss the chance to get your hands-on geek on.

PHENOMENAL FUNGI

AGES 18+
SPECIAL EVENT



ASSEMBLY ROXY

WED 13 APR | 8PM | 2 HOURS | £16/£14

They're all around us. They're in the air and in our bodies. They cover miles and contain multitudes. They are delicious, dangerous and vital to life on earth. Some serve as the neural nets of forests, some have miraculous medical properties, some pose a grave threat to global health – and an estimated 90% of them are still unknown to science. Join lichenologist **Dr Sally Gouldstone**, medical mycologist **Prof Elaine Bignell** and expert fungi forager **Nev Kilkenny** for an evening exploring the weird and wonderful world of fungi and our relationship to this extraordinary kingdom of life on earth about which we still have so much to learn. Ticket price includes two mushroom cocktails and canapes provided by award-winning wild flavour innovators **Buck and Birch**. Hosted by **Liz Holden**.

THE MATERIAL WORLD

AGES 18+
SPECIAL EVENT



ASSEMBLY ROXY

THU 14 APR | 8PM | 2 HOURS | £16/£14

Fabric is the stuff of life. We are the sole species to make and wear it, and since prehistory it has evolved with us as clothing, currency, culture and technology. Anthropologist and best-selling author **Victoria Finlay** takes us on an odyssey around the globe as we delve into the secrets of the material world, from the barkcloths of the Pacific to the tweed-weavers of the Hebrides and the quilts of Alabama. Science historian **Kersten Hall** explains how the humble wool fibre played a crucial role in unravelling the mysteries of both DNA and insulin, and sustainability expert **Dr Sue Thomas** explains how innovation in making is taking on toxic fast fashion. The evening includes a botanical hand-dyeing experience with textile activist **Justine Aldersley-Williams** where you'll create your own unique piece of wearable art to take home.

CLIMATE COCKTAILS

AGES 18+
SPECIAL EVENT



ASSEMBLY ROXY

FRI 15 APR | 8PM | 2 HOURS | £20/£18

The hospitality industry has historically had a hefty carbon footprint, but with more and more of us seeking to build sustainability into our consumer choices, how can we craft a perfect tippie that doesn't cost the earth? Spirits writer and whisky expert **Becky Paskin** hosts an evening featuring eco drinks pioneer **Iain McPherson**, head bartender at Johnnie Walker Princes Street **Miran Chauhan** and wild brew creators and flavour innovators **Buck and Birch** showcasing cutting-edge techniques and taste sensations along with their visions for a green future for the drinks and hospitality industry. Ticket price includes three cocktails with zero-waste canapes provided by **Nourish@Cyrenians**.

SENSATIONAL STORIES OF SCIENCE

AGES 18+
SPECIAL EVENT



THE VOODOO ROOMS

TUE 19 APR | 7.30PM | 2 HOURS | £10/£8

In an attic in Victorian London, a chemistry student messed up his homework. In a university courtyard, a young woman puzzled over the sun. In a Tanzanian classroom, a schoolboy had an ice cream epiphany. In a WW1 hospital, a dying soldier discovered the stuff of astronomical nightmares. And in Edinburgh, a child in homemade shoes inadvertently created our ultra-connected 21st century. Author and cosmologist **Marcus Chown**, science storyteller **Siân Hickson**, inventor **Matthew Wright** and comedian **Bruce Fumme** tell tales of fantastic discoveries, astonishing feats of genius and the marvellous, tragic and the fascinating lives of the men and women who made them. Hosted by **Susan Morrison**.

DATA AFTER DARK

AGES 18+
SPECIAL EVENT



NATIONAL MUSEUM OF SCOTLAND

GRAND GALLERY

THU 21 APR | 7PM | 3 HOURS | £10/£8

Join us as we open the doors of our *DataSphere* exhibition after hours! Not only will every engaging and interactive installation be open, but *Data After Dark* will also feature DJs, bars and exclusive, new activities, in an event that's only for grown-ups! What's more, discover the National Museum of Scotland's *Explore and Making It* galleries with their hands-on interactives and Dolly the sheep. Take the chance to have as much fun as the kids as you send, swipe and scroll through the data that drives our world. Ticket price includes welcome drink from **Bellfield Brewery**.

Presented in partnership with the National Museum of Scotland

A TOAST TO GAIA

A Toast to Gaia takes you on a tour around Edinburgh, showcasing the community of independent bars and restaurants that have a keen eye on our future planet. They know a thing or two when it comes to sourcing the very best of what the drinks industry has to offer when it comes to climate-friendly and sustainable offerings and they're here to tell you about it.

We welcome you to come and explore this very special, and vital, revolution with us. Look out for the *A Toast to Gaia* trail map at our participating venues and talk to your bartender about the story behind their creation from 19 March–24 April.



BOOKING HOTLINE: 0131 226 0005

ONLINE BOOKING: SCIENCEFESTIVAL.CO.UK

JOIN THE CLIMATE REVOLUTION!



Climate science has gone through what can be described as a number of revolutionary developments; from breakthroughs in the understanding and acceptance of human responsibility for our warming world to the technological advancements – from green energy to Earth-observation satellites – that increasingly improve our ability to assess and act on climate change.

The next revolution needs to be in the attitudes and behaviours of individuals, organisations and nations. We must make a radical shift in how we think about our responsibility for the custodianship of planet Earth and the role we need to play in protecting it.

Don't miss some of our programme highlights that address the climate crisis:

P.20	WILD SCOTLAND SAT 19 MAR–SUN 24 APR PORTOBELLO PROMENADE
P.21	CONSUMED SAT 9–SUN 24 APR THE MOUNT PRECINCT
P.24	CLIMATE CHANGE: A TIME TRAVEL ADVENTURE MON 11 APR 6PM NATIONAL MUSEUM OF SCOTLAND
P.25	GAIA AT 50 TUE 12 APR 6PM NATIONAL MUSEUM OF SCOTLAND
P.25	COMMUNITY ACTION AGAINST CLIMATE CHANGE TUE 12 APR 6PM ROYAL SOCIETY OF EDINBURGH
P.26	A.C. GRAYLING – FOR THE GOOD OF THE PLANET WED 13 APR 8PM NATIONAL MUSEUM OF SCOTLAND
P.32	PREPARING FOR EXTREME WEATHER EVENTS THU 21 APR 8PM NATIONAL MUSEUM OF SCOTLAND
P.37	CLIMATE COCKTAILS FRI 15 APR 8PM ASSEMBLY ROXY

At Edinburgh Science we are proud to play our part in accelerating the nation's climate response. We are growing our emphasis on programming for the planet as we look to integrate the vision of a greener future into all aspects of our work.

We are taking steps to ensure Edinburgh Science Festival treads lightly on the planet. This brochure has been printed with vegetable based ink on FSC accredited paper. We encourage the speakers at our Festival to avoid internal flights in favour of greener travel and we've ensured the suppliers we work with take climate and their transition to a Net Zero future seriously. Our signage, where possible, is 100% recyclable and our *Consumed* exhibition has been created using sustainable materials.

Since 2019 we have mobilised our networks, convening leaders and decision-makers through our *Climate Opportunity Ideas Factory* round table events. These focussed discussions seed innovative ideas and create partnerships which have the power to revolutionise approaches to the climate emergency.

Our *NetZeroToolkit* for businesses began as such an idea. This free, comprehensive step-by-step resource helps organisations to tackle carbon reduction, getting them on track to achieving Net Zero by 2040. Try out the *NetZeroToolkit* now at thenetzerotoolkit.org

We will not slow down and would like to thank the organisations whose generous and continued support makes our climate work a reality.

For information and to get involved visit sciencefestival.co.uk/sustainability or contact our Director of Development and Marketing Hannah Schlesinger: hannahs@scifest.co.uk



HEADLINE CLIMATE PROGRAMME SUPPORTER



Actual Investors

FUNDING PARTNERS



SCIENCE IN THE HEART OF THE COMMUNITY

We create strong partnerships with community groups to deliver bespoke activities in under served areas and make our Science Festival more accessible.

Thanks to support from Baillie Gifford, Cirrus Logic, Culture & Business Fund Scotland and Edina Trust, we can open our five-floor science playground at City Art Centre for two additional days pre-Festival to allow local schools access free of charge.

We deliver our Generation Science programme annually to pupils across Scotland. In response to Covid-19 restrictions, we adapted Generation Science for 2021 for remote delivery through pre-recorded workshops and boxes full of kit, which were received by 258 schools.

Every year we run Careers Hive at the National Museum of Scotland – a reimagined interactive careers event for 11-15 year olds that is free for schools to attend and encourages young people to consider science and technology subjects. Careers Hive went online in 2021, with 2,400 students from over 30 Scottish schools joining us.

Our community outreach is supported by: The PLACE (Platforms for Creative Excellence) Programme, a partnership between the Scottish Government – through Creative Scotland – the City of Edinburgh Council and the Edinburgh Festivals



THANK YOU TO OUR CATALYSTS FOR THEIR GENEROUS SUPPORT

Benefactor:

The Nimar Charitable Trust
Dr David Milne

Patron:

Jo and Alison Elliot
Edina Trust
Dr Janet Brown
Dr Richard Kimberlin OBE
Richard Marshall
Ian Ritchie
Mairi Mickel

Innovator:

Joe Faraday
Prof Ian Wall
Dr Chris Masters
Ron Inglis
Dr Simon Gage OBE
Dawn Robertson

and all those who wish to remain anonymous

Registered Charity no. SC003790

THANK YOU

We are Scotland's largest science outreach charity but we cannot continue our work without support.

Thank you to all of our generous supporters who are acknowledged on our supporter pages at the front and back of this publication. A special thank you to our Catalysts, a network of individuals and organisations who support our charitable effort and encourage the next generation to engage with science, technology, engineering and mathematics.

By making a financial gift, this group of Catalysts ensures that our activities can be enjoyed by all – whatever their background. Please consider becoming a Catalyst too. You can get more information from Hannah, our Director of Development and Marketing: hannahs@scifest.co.uk.

EDINBURGH SCIENCE LEARNING HEADLINE SPONSOR



Actual Investors

PRINCIPAL FUNDING PARTNERS

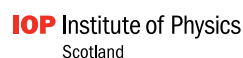


Scottish Government
Riaghaltas na h-Alba
gov.scot

MAJOR FUNDING PARTNERS



FUNDING PARTNERS



SUPPORT

Cruden Foundation, The Davidson (Nairn) Charitable Trust, Falkirk Community Schools Charity, The Hugh Fraser Foundation, Jimmie Cairncross Charitable Trust, The Murdoch Forrest Charitable Trust, New Park Educational Trust, SSE Drumderg Community Fund, Stewart Investors, Tay Charitable Trust, Thistledown Trust, W M Mann Foundation, William Coull Anderson Trust, William Grant & Sons, our Catalysts and all those who wish to remain anonymous



EXPLORE FIVE FLOORS PACKED WITH WORKSHOPS AND INTERACTIVE
EVENTS FOR CHILDREN AGED THREE YEARS AND OVER
FULL DETAILS ON PAGE 6
9-24 APRIL [NOT SUNDAYS]

