

Edinburgh Science Festival sparks debate on climate crisis with *Elementary*, an inspiring programme for 2020

- World's first and Europe's biggest science festival launches its 32nd programme, presenting 250 family and adult events at 34 venues between 4 and 19 April.
- Celebrating the 50th anniversary of Earth Day, and the rise of the environment movement, the Edinburgh Science Festival's 2020 theme is *Elementary*; using the ancient classifications of Earth, Air, Fire, Water and Aether as lenses to explore global environmental challenges and opportunities.
- As part of Scotland's Year of Coasts and Waters 2020, the Festival presents *Pale Blue Dot* at the National Museum of Scotland, a multi-sensory exploration of the depths of the seas and oceans and of their transformative and life-giving nature. While *Into the Blue* on Portobello Promenade, is a large-scale outdoor photography exhibition showcasing Scottish coastlines, biodiversity and our relationship with our plentiful coasts and waters.
- After a successful first year, the Pleasance returns as the Festival Hub, hosting an expanded *Experimentarium* science showcase and a special dinosaur-themed Easter weekend extravaganza, alongside a variety of science shows, hands-on events, debates, discussions and workshops for curious minds of all ages.
- Edinburgh Science Festival is supported by a range of organisations, including Principal Funding Partners: The City of Edinburgh Council, Scottish Government and Edina Trust.



Edinburgh Science Festival sparks conversations about climate crisis with an inspiring 2020 programme. In the picture: Conor Ellis at the Royal Botanic Garden Edinburgh. Credit Ian Georgeson.

IMAGES AVAILABLE [HERE](#)

World's first and Europe's biggest science festival, Edinburgh Science Festival returns for its 32nd edition from 4 until 19 April 2020, presenting hundreds of events, talks, workshops and exhibitions for both children and adults across dozens of venues in the Scottish capital.

This year's theme, *Elementary*, uses the ancient classification of Earth, Air, Fire and Water as lenses to explore global environmental challenges and opportunities. Striking a balance between urgency and optimism it highlights the roles that creative thinking, science, technology, engineering and related disciplines play in helping to secure a successful and sustainable future.

From biodiversity, ecology and food security (**Earth**) and clean air (**Air**) to energy and climate policy (**Fire**) and marine biodiversity (**Water**), the Festival places its focus firmly on our environment. As some of the ancients did, the Festival adds a fifth element, with a special focus on the digital world (**Aether**), exploring how to merge creative technology with live events to create new experiences for Festival audiences and on delivering more content online, taking science and culture to wider and more diverse audiences.

Some of this year's Festival highlights include:

- **Pale Blue Dot at the National Museum of Scotland:** an interactive exhibition aimed at audiences of all ages, it explores the essential and life-giving nature of our oceans, with a focus on their important biodiversity and their role as providers of energy, transport, food and opportunities for leisure and pleasure. This large-scale exhibition is part of Scotland's Year of Coasts and Waters 2020 (YCW2020).
- **Into the Blue on Portobello Promenade:** also part of YCW2020, this large-scale outdoor photography exhibition takes its audiences on a fascinating journey around Scottish coastlines, highlighting their biodiversity and potential, our relationships with our coasts and waters as well as the threats they face. Opens on 18 March.
- **Elemental at Summerhall:** Bright Side Studios create a new digital immersive experience combining magic, alchemy and science. This art piece has been commissioned by Edinburgh Science and supported by the Scottish Government's Festivals Expo Fund.
- **Edinburgh Medal Address in Council Chambers:** the prestigious Edinburgh Medal is awarded to Sunita Narain, the Indian environmentalist and political activist who, as a member of the Prime Minister's Council for Climate Change between 2007 and 2014, played a major role in Indian and global environment and development policy formulation. Her Medal address and a linked event from the Scottish Parliament will explore climate justice, equity and the links between climate and development.
- **City Art Centre:** The Festival's flagship family venue is a unique 5-floor science playground filled with exciting hands-on science activities for young minds, including the all-time favourites *Blood Bar* and *ER* as well as two new activities including Ocean Constructors (part of YCW2020), where little explorers build an underwater landscape, and Creative Coding with Marty the Robot. The building will also house three digital artworks supported by the Scottish Government's Festivals Expo Fund.
- **Experimentarium at the Pleasance:** a five-day celebration of hands-on science for all ages, where keen young minds will get a chance to dance with molecules, meet Scotland's largest pests and prove that maths is anything but boring!
- **Gastrofest, various venues:** the ever-so-popular gastro-science strand takes inspiration from the Year of Coasts and Waters 2020 as it tickles the taste buds with events on coastal cocktails, seaweeds and seasonings, whisky and cheese.

- **European Stone Stacking Championships, Dunbar:** returning for the fourth year but its first time as part of the Science Festival, the Championship merge art and science, celebrating land art and taking materials found in nature and working with Earth's gravity to create sculptural towers, archways and other awe-inspiring structures from rocks and stones.



Edinburgh Science Festival sparks debate on climate crisis with an inspiring 2020 programme. Picture features Emily Raemaekers as Gaia at the Royal Botanic Garden Edinburgh. Credit Ian Georgeson.

Amanda Tyndall, Festival and Creative Director at Edinburgh Science said: “We share our planet with almost eight billion people and the collective environmental challenges we face have never been greater or more complex. As the custodians of planet Earth we have responsibility to ourselves and to future generations. The climate crisis is *the* defining local and global challenge of our age and as will be one of the great disruptors of the 21st century, radically reshaping how we live, work and play. But with disruption and uncertainty comes possibility....and with possibility comes hope... THIS hope is the elementary message at the heart of our 2020 Science Festival programme.”

SPECIAL EVENTS

Into the Blue

Supported by Year of Coasts and Waters 2020, this large-scale outdoor photography exhibition on Portobello Promenade showcases our relationship with Scotland’s waters. Oceans shape our environments and landscapes, influence our climate and weather systems, and have enabled the rise and fall of civilisations. They give us food and fuel, medicine and minerals, as well as leisure and pleasure. But their supply is finite or fragile, or both – under

threat from pollution, global warming and acidification, over-fishing and biodiversity loss. *Into the Blue* takes its audiences on a fascinating journey around some of Scotland's most remarkable coastlines, revealing the story of our oceans' scale, biodiversity and majesty.

Edinburgh Medal Address

2020 Edinburgh Medal recipient is Sunita Narain, the Indian environmentalist and political activist. As a member of the Prime Minister's Council for Climate Change between 2007 and 2014, she played a major role in Indian and global environment and development policy formulation. She is currently Director General of the Centre for Science and Environment (CSE). In her Medal Address, Narain discusses what must be done in our world – to make it less insecure, less angry and less vulnerable to the effects of carbon. Remember, climate change, like air pollution is a great equaliser. So, what can we do? Our existence is at stake. Nothing less.

Pale Blue Dot

Taking over the Grand Gallery at the National Museum of Scotland, *Pale Blue Dot* is a multi-sensory exploration of the depths of the seas and oceans and of their transformative and life-giving nature. Aimed at audiences of all ages, the exhibition focuses on the biodiversity and beauty of the waters and their role as energy, transport and food providers. It also showcases the risks they face – from pollution to the effects of the climate emergency on the planet's weather and water systems – and explores some of the creative ways these are being tackled. In response to *Pale Blue Dot*, students from Edinburgh College of Art have created **Ocean Threads**, an exhibition of costumes and design books made from 80% recycled materials.

Dinosaur Weekend

Pleasance, venue sponsored by Cirrus Logic, is overrun by dinosaurs this Easter weekend! Dino-devotee Jules Howard presents his fantastic new show *Prehistoric Beasts and How to Know Them*, family audiences will also get a chance to create masks, hats and other stylish dino-accessories in one of a range of drop-in activities. Young palaeontologists will rampage around the courtyard on a reptilian egg hunt and join Festival's friends from Dynamic Earth to dig for fossils.

Experimentarium

Also at the Pleasance, Experimentarium is back and bigger than ever! Running for five days this year, it is jam packed with hands-on science of all kinds. Visitors can explore the music of molecules, learn how radiation works, meet some of Scotland's biggest pests, get hands-on with farming and get their brains tricked as they put their maths skills to test.

European Stone Stacking Championships

Rounding off the Science Festival's contribution to Scotland's Year of Coasts and Waters 2020, the European Stone Stacking Championships return for the fourth year and for the first time form part of the Festival. Stone stacking takes materials found in nature and works with Earth's gravity to create sculptural towers, archways and other awe-inspiring structures from rocks and stones. Transient in nature – at the mercy of the elements, tides and time – these wonderful land-art creations merge artistic skill and the laws of physics to amazing effect. With a new family competition, demonstrations and workshops across the weekend, the Festival audiences are in for an outdoor treat!

Cyber Zone

The Festival shines a special light on the digital world with the brand new, immersive Cyber Zone at the Pleasance, packed with events covering technology, computing, programming and

artificial intelligence (AI) for adults and young people. This includes, among others, programming a self-driving car, the Festival-favourite App Factory and creating an interactive story that changes depending on reader's decisions.

EVENTS FOR ADULTS AND YOUNG PEOPLE

EARTH: One Earth

Focusing on ways of protecting natural land diversity and building a sustainable future for the ever-growing Earth population, this series includes ***Adapt or Die***, a panel discussion exploring what an extinction event means to the one million animals and plants at risk of disappearing. In ***How Humans Are Altering Life on Earth***, Dr Helen Pilcher considers the many ways humans have affected even the most remote environments and have potentially caused some animals to evolve at breakneck speed to survive. In ***Disaster by Choice***, science journalist Kate Ravilious talks to author and professor of disasters and health Ilan Kelman, who offers the uncomfortable truth that most natural disasters are created or exacerbated by human choices.

AIR: The Air We Breathe

Earth has a breathable atmosphere, a rare and precious resource. This series offers a variety of discussions exploring the opportunities and issues connected with protecting the air we breathe. ***Let Me Breathe*** sees a panel of experts exploring the experiences of adolescents with asthma in Delhi, one of the world's most polluted cities and present a personal exposure sensor. ***Roads Re-Imagined*** focuses on how Edinburgh city centre could look like if it featured more cycle and pedestrian friendly spaces, creating a healthier future for its residents. ***Electric Futures*** looks at our electric transport future and its benefits for climate, environment and human health. In ***A Hydrogen Powered Future: Pipeline or Pipe Dream***, ARUP's hydrogen expert Mark Neller discusses the exciting role this most abundant yet underused element plays in helping to accelerate the decarbonisation of our industry, transport and homes.

FIRE: All Fired Up

Discover the steps – from policy to personal choices – required to create a cleaner, greener planet. Prof Hilary Graham, specialist in the relationship between climate and public health, heads a panel in ***Climate Sickness*** discussing whether a climate emergency is also a health emergency. In ***The Four-Day Week*** experts explore the benefits of a shorter working week and its effect on the planet. ***Consume. Discard. Repeat.*** explores the perils of irresponsible consumerism, including topics such as disposable devices, sustainable nutrition and fast fashion.

WATER: Water for Life

Part of Scotland's Year of Coasts and Waters 2020, this special series shines a spotlight on the essential and life-giving nature of our oceans and on our relationship with them, exploring the challenges and opportunities they face and asking how we best protect them. Senior scientific advisor for ***Blue Planet II*** and marine conservation biologist Prof Callum Roberts brings ***Life on the Reef*** to the Festival, exploring how reefs became one of the wonders of the ocean world and how they now struggle to survive. ***Scotland's Precious Seas*** offers the opportunity to discover the country's diverse sea life and talk about the threats it is currently facing. The Five Deeps Expedition was a venture conceived by explorer Victor Vescovo which saw him reach the deepest point in each of the five oceans in his own, purpose-built, full ocean depth submersible in a series of expeditions between 2018 and 2019; in ***Exploring the Five Deeps*** a panel of experts discusses the challenges of such expeditions and what they brought to light.

AETHER: Go Digital

With technology embedded in every aspect of our lives, this series explores the power and potential of the digital world. Presented by Bright Side Studios in association with the Festival, ***Elemental*** takes its audiences on a multi-sensory journey of discovery where magic, alchemy and science meet. As of 2018, gaming disorder is recognised by the World Health Organisation and ***Addicted to Games*** explores the affects gaming might have on players as well as challenges some common misconceptions. The Festival also zooms in on pros and cons of deepfakes, the technique of human image synthesis based on AI and machine learning in ***Deep Dive into Deepfakes***. With Edinburgh becoming one of the six UK cities to get 5G, Craig Steele of Digital Skills Education sorts 5G facts from 5G fiction in ***5G: What's In It for Me?***

From STEM to STEAM

Complex problems require complex solutions and never before has creative thinking been more important. The Festival continues its championing of art-based learning in science and the power of bringing scientists and other creatives together with a programme that brings STEM (science, technology, engineering and maths) together with Arts to make STEAM!

Syncrasy is a group contemporary art exhibition co-curated by Summerhall and ASCUS Art & Science which takes place at Summerhall. It offers its audiences an opportunity to experience the ground-breaking work of visual artists Beverley Hood, Victoria Evans and Sneha Solanki, who merge the fields of art, science and technology. Sneha Solanki probes the habitats of the un-natural and presents a new and expanding rendition of the 'E-Number' food additive system in ***E-Numbers V2.0***. In ***Oscillations***, Victoria Evans explores how distant and invisible phenomena affect our everyday lives. Using data sonification, she makes audible the cyclical patterns of the tides and their interplay with lunar and solar orbits; this exhibition will include sounds of Edinburgh coastlines. Inspired by eczema genetic research laboratory, Beverley Hood multi-artform sensory exhibition ***We Began As Part of the Body*** tells a story as seen from a point of view of an artificial skin cell, from the precious, short three week long in vitro life to disposal.

Also at Summerhall, Bright Side Studio's ***Elemental*** invites its audiences to interact with the Elements as they embark on a 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.

At Collective, artist Julijonas Urbonas presents ***Planet of People***, a fascinating project which sees visitors being 3D scanned before their bodies become part of an artificial planet made entirely from human bodies.

Artist and activist Dr Roman Viguier invites everyone on ***The Carbon Walk*** which will see everyone meeting at Dynamic Earth to collect a 5kg bag, the equivalent of 3.5 hours of the average carbon footprint in the UK before walking to the Edinburgh Centre for Carbon Innovation where those bags will form part of an installation representing one tonne of carbon dioxide.

Gastrofest

Where food and science collide in sociable science events! ***Where is Your Next Meal Coming From?*** explores topics such as food security and Scotland's relationship with food

and how the climate crisis might change things. ***Eat Shoots and Leaves*** shines a light on the tasty and increasingly popular world of veganism while Festival favourite ***Cheeseology*** returns with more cheesy treats. ***Coasts and Cocktails*** presents a selection of delicious drinks inspired by Scotland's 10,000 miles of coastline. ***In Seasoning*** sees a panel of experts discussing the nature of spices and seasonings and ***8,000 Year Love Affair*** shines a special light on the story of a humble tattie. ***Whisky and Water*** explores the history of one of the world's favourite spirits – with a wee tipple included!

In other news....

- One of Festival's key highlights, **Tam Dalyell Prize for Excellence in Engaging the Public with Science** is awarded to **Dr Andrew Manches** from the Moray House School of Education and Sport at The University of Edinburgh for his unwavering passion to support children's learning in the Early Years.
- One of the UK's leading nuclear engineers **Dr Dame Sue Ion** explores the country's rich engineering heritage in ***Energising Engineering: Half a Century of British Innovation***.
- We need carbon for life but too much of it and we're as good as dead! Prof Monica Grady (European Space Agency and the Open University) focuses on the fascinating versatility of carbon in ***Element Six***.
- In ***Truth About Vaccines*** a panel of experts examines the past, present and future of vaccines and alleviate public concerns about this hot topic.
- Behavioural scientist Dr Pragma Agarwal presents ***Sway: Unravelling Unconscious Bias***, a talk on how we perceive the world and how it influences our decision making, even in life and death situations.
- In ***Wildfire Resistance Through Architecture*** design scientist Dr Melissa Sterry takes a look at the potential for urban resilience to wildfires through the creation of complex adaptive architectural systems by mimicking the biochemistries, behaviours and relationships of fire-adapted flora and fauna species.
- Dr Rory Hadden explores the history and science of fire in ***Fire Power***.
- To honour the 30th anniversary of the famous pale blue dot image, the Festival hosts ***An Evening with Gaia***, a special event of science talks, poetry, live music and hands-on activities in the shadow of the impressive *Gaia* at Dynamic Earth.
- You wouldn't fly an aeroplane without a fuel gauge yet many economies are run without knowing the demands on our natural resources. Dr Mathis Wackernagel co-created such a gauge for our planet, *The Ecological Footprint* and in ***Decade for Decisions*** he discusses the ideas presented in the book.
- Founder of The People Who Share and Global Sharing Week **Benita Matofska** is an expert in Sharing Economy, a phenomenon causing the most significant shift in society since Industrial Revolution. In ***Generation Share*** she discusses this hot topic and the 200 change-makers featured in her book.
- Geneticist, broadcaster and host of BBC Radio 4's Inside Science, **Dr Adam Rutherford** explains ***How to Argue With a Racist***.
- Did you know that electrical energy in a single mosquito is enough to cause a global mass extinction? Best-selling author **Marcus Chown** explores some of the most profound and astounding science around us in ***Infinity in Your Hand***.
- Edinburgh-based endurance athlete and author Markus Stitz has travelled 34,000km around the world on a single speed bike and presents ***Endurance with Markus Stitz*** to tell his remarkable stories.
- They lie, they steal, kiss and sing. ***Indecent Insects*** offers a unique insight into the diverse sex life of insects.
- Recorded in front of a live audience, ***Level Up Human*** is a comedy podcast show where audiences have a go at redesigning humans.

- A scientist studying laughter, Prof Sophie Scott explores why people laugh and when do they laugh the most in ***What's So Funny?***
- Science author and presenter Claudia Hammond presents ***Tired of Being Tired?***, explaining why rest matters and offers a roadmap to a more restful life.
- In ***Period Power***, period and hormones expert Maisie Hill argues that being hormonal is a good thing.
- Comedian Florence Schechter takes her audiences onto a hilarious and thought-provoking tour of LGBTQ+ behaviour in animal kingdom in ***Queer by Nature***.
- The Festival offers a variety of sociable events to get everyone's science juices flowing! ***Scottish Famelab Final*** is a geekery galore: fascinating subjects and mind-blowing research presented live on stage in a bite-size, 3-minute talks.
- ***Jukebox Bingo: Science Up Your Life*** is a 2020 science twist on the nation's favourite pastime, testing everyone's recall of scientifically-inspired chart classics from across the decades. Grab your dobbers now!
- Comedians Simon Watt and Rachel Wheeley join science communicator Hana Ayoob to take the audiences through the world's weirdest and most wonderful critters in ***Ugly Animal Preservation Society***.

EVENTS FOR CHILDREN AND FAMILIES

City Art Centre

City Art Centre, venue sponsored by EDF Energy, once again becomes a family hub during the Festival with 5 floors of hands-on science for children. With two new workshops this year, City Art Centre is a perfect family day out – rain or shine – this Easter holidays. New workshops include *Ocean Constructors* where children build underwater landscape and *Imagination Playground* which unlocks the creative spirit as the little engineers make super-sized constructions. All-time favourites such as *ER Surgery*, *Blood Bar* and *Splat-tastic* also feature in a 15-strong line-up of world-class workshops.

EARTH: One Earth

- Family audiences are invited to Dynamic Earth to marvel at our planet like it has never been seen it before, as artist **Luke Jerram's** stunning ***Gaia*** comes to Edinburgh for the first time. A huge scale model of Earth, Gaia is 1.8 million times smaller than the real thing, each centimetre of the artwork faithfully recreating 18km of Earth's surface.
- In ***Think Plastic*** at the Royal Botanic Gardens Edinburgh, a panel of experts devised a special science-meets-art collaboration encouraging young environmentalists to think about plastic.
- Historic Environment Scotland's rangers and experts take audiences onto a unique journey of discovery on Holyrood Park's dramatic hills and crags as they learn about the affect that the elements had on the landscape in ***Elements in the Park***.

AIR: The Air We Breathe

- Supported by British Hearth Foundation Scotland, ***It's All Connected*** presents a glowing human LED sculpture which showcases how all heart and circulatory diseases at the National Museum of Scotland.
- ***Imaginary Energy*** fires up the audiences' imagination as they re-imagine our energy future in this entertaining, interactive show from Dr Stephen Peake.
- Could hydrogen power the ***Cars of the Future?*** The workshop offers the participants an opportunity to design, build and test a model vehicle powered by a hydrogen fuel cell.

FIRE: All Fired Up

- In ***Polar Ice World: Heating Up and Melting Down***, hands-on science demonstrations, interactive activities, lively discussions and stories of incredible polar experiences from real scientists shine light on these crucially important parts of Earth and the challenges they face.
- In ***Zoo Eco-Detectives*** at the Edinburgh Zoo, young curious minds explore a detective trail following clues pointing towards sustainable innovations. Children learn about the five elements of waste, energy, water, biodiversity and food as they go, and uncover sustainable tips and eco-tricks to take home.
- In ***Making Circles*** children create new objects for Zero Waste classroom as they explore about waste and how it can be transformed into something amazing.

WATER: Water for Life

- ***Seashore Safari***, taking place on Joppa Sands in Portobello, invites young audiences to investigate Edinburgh's rocky shore and discover what lives there – with guidance from the Marine Conservation Society while in ***Seashore Nature Detectives*** naturalist and wildlife tracker Dan Puplett explores clues left behind by wildlife on Fisherrow Harbour in Musselburgh and near Scottish Seabird Centre in North Berwick.
- ***Rockpool Rambles*** offers a unique opportunity to zoom in on the amazing wildlife of rockpools of North Berwick with help from experts from the Seabird Centre.

AETHER: Go Digital

- For future engineers, ***Hands-On Robots*** is a must: presented at the National Museum of Scotland, it offers an opportunity to meet Arduino-powered wheeled robots, created and run by the students of the Edinburgh Napier University while ***Talos Humanoid Robot Showcase*** presents Talos, a six-foot-tall humanoid robot and the newest addition to the robotics research lab at The University of Edinburgh.
- In ***Electronic Music: Beginners***, part of Cyber Zone, participants learn how electronic circuits make sounds and solder components to a small circuit board which is shaped like bagpipes. When the circuit is complete, the gadget will be able to play a tune!

SCIENCE IN THE SPOTLIGHT

- ***The Whirlybird***, presented by Eco Drama, is an uplifting show for ages 3-7 which features movement, music, bird song, puppetry and lots of things that spin. It tells a story of Bird and Whirlybird with the latter struggling to fly. After many failed attempts, inspiration is found in a very special flying seed. A curious creature, ricketie-racketie on ground but in flight, a wildlife spectacle.
- At ***Two in a Barrell*** audiences meet quirky best friends Riri and Moku as they find themselves stuck in a barrel sitting on top of an island of rubbish in the ocean which proves to be both a source of treasure troves and a real danger. The show explores the consequences of our habits and the challenges of co-existing in an environment with limited resources.
- Following a fantastic SciDebut last year, ***StrongWomen Science*** Aoife and Maria return to the Pleasance with another fiery show filled with balancing a chair on a chin, juggling liquid and eating fire, all while revealing the scientific secrets of their astounding tricks.

In other news...

- National Museum of Scotland hosts a variety of fascinating hands-on activities, including ***Bio-Discoveries*** where children get up close with parasites and

mosquitoes, ***Life Beyond Our Planet: Design Your Own Alien*** which allows them to build their own sequence of DNA and run it through a DNA sequencer or ***Two Sides of the Same Brain***, explaining the build and importance of the organ.

- Also at the Museum, ***Medicines in the Making*** allows the little participants to play life-sized clinical trial board game which aims to cure the mysterious Easter Bunny Syndrome and ***Neuron Safari*** offers a chance to explore through Minecraft how the billions of cells in a brain work.
- Using cutting-edge imaging techniques to uncover body mysteries in ***Body Image: Technological Tour of the Body***, young participants run experiments to discover if whales are stressed and explore ways that body fat can be healthy.
- Over at the Scottish Parliament the curious minds can experience an ***Adventure in Science*** while next door at the Palace of Holyroodhouse, families witness ***Holyrood Herbal Histories*** at the newly re-created Physic Garden, home to some fantastic flowers and hundreds of years of herbs.
- Magnifiers and money checkers are put to use at ***Pound and Pence: Science in Your Pocket*** at the Museum on the Mound, revealing the secrets of the cash we handle.
- Visitors to Surgeon's Hall Museum get a chance to dissect a pig's heart in a hands-on workshop ***Let's Look at the Heart***.
- ***Aether in the Archways*** at St Giles Cathedral sees families exploring how instruments and voices sound differently depending on where you stand in this big, old, unique stone building with impromptu mini-concerts to test it. As an encore, visitors create their own musical instrument to take home using recycled and reclaimed materials.
- ***One Health*** at the Royal Botanic Garden Edinburgh invites young Disease Detectives to try out different lab tests to discover what bugs are making humans and animal sick. Also at the Garden, ***Shred and Melt*** with artist Carla Edwards gets everyone hands-on turning waste plastic into precious plastic!
- At the Festival Hub, the Pleasance, audiences get a chance to control Foxdog's DIY ***Robot Chef*** with their phones, using augmented reality avatars. IT consultants Lloyd Henning and Peter Sutton present their award-winning interactive comedy show, where participants work together to help cook dinner by igniting a gas stove, driving a sky tractor and firing the sausage cannon. In ***Carbon City Zero Card Game*** players become a newly appointed city mayor tasked with creating a carbon neutral city. Will they hit the zero-carbon target before their rivals? The race is on.

Minister for Children and Young People Maree Todd said: “I'd like to congratulate Edinburgh Science Festival for compiling another world-class programme, particularly one that seeks to address the climate emergency through this year's Elementary theme.

“The Scottish Government is pleased to have supported the event in various ways, including £130,000 in Festival Expo funding to Go Digital that explores how digital technologies can inspire innovation, and events under the banner of Scotland's Year of Coasts and Waters, supported through the PLACE and EventScotland Open Events funds.”

Councillor Donald Wilson, Culture and Communities Convener said: “For over 30 years, our Science Festival has challenged industry and entertained audiences with cutting-edge discoveries, experiments and events. We've seen it grow from the world's first into the biggest festival of its kind in Europe and its influence is greater than ever.

“Now, as we sit on the edge of major change in Edinburgh - spearheading ambitious plans to be Scotland's sustainable Capital by becoming net zero by the end of the decade - the festival returns with an impressive climate change agenda.

“This year’s programme promises to explore many of the global environmental challenges we face and how we can all do our bit to help. Tying in with Scotland’s Year of Coasts and Waters, the programme will also celebrate our place as a coastal city.

“As a Council we continue our support of the Science Festival and I’m pleased to see that our own City Art Centre will once again be transformed into a packed playground for even the youngest scientists and pioneers.”

Paul Bush OBE, Director of Events at VisitScotland, said: “We are delighted to be supporting Edinburgh Science Festival as part of Year of Coasts and Waters 2020. Scotland offers the perfect stage to celebrate our country’s natural biodiversity and scientific innovation, and this year’s festival will shine a light on the value of our seas and oceans and the challenges they face.”

Dr Gordon Rintoul, Director of National Museums Scotland, said: “We are delighted to be collaborating once more with the Edinburgh Science Festival. In this Year of Coasts and Waters, we look forward to hosting the Pale Blue Dot exhibition which will complement our Scotland’s Precious Seas display, part of a new programme of activity highlighting the issues affecting our waters including climate change and weather events, some of the key issues facing humanity at this time.

“We will also offer insights into cutting edge medical science through a range of events associated with our exhibition Parasites: Battle for Survival, which examines efforts being made here in Scotland to tackle five global tropical diseases. In addition to the packed events programme, our Science and Technology galleries showcase our outstanding permanent collections across a host of disciplines and our hugely popular Tyrannosaurs exhibition will be running throughout the Festival.”

Janet Archer, Director, Festival, Cultural and City Events, University of Edinburgh said: “The Edinburgh Science Festival is an important platform helping make the world a better place through science, innovation and creativity. The University of Edinburgh is delighted to partner with the Festival once more, with our world leading academics contributing talks and discussions as well as discovery activities for children and young people at the National Museum of Scotland. We especially welcome this year’s focus on the climate emergency.”

Dr Max Coleman, Science Communicator at the Royal Botanic Garden Edinburgh said: “In the 350 years since the Botanic Garden was founded as a source of medicinal plants our understanding of, and impact on, planet Earth has changed beyond all recognition. We are delighted to contribute to the Festival programme with a focus on the sustainable use of our planet’s precious resources.”

Eilidh Massie, marketing director at Dynamic Earth, said: “We’re always proud to be a programme partner with fantastic Edinburgh Science Festival.

“We’re especially excited this year to be launching our festival activity with Luke Jerram’s spectacular Gaia installation. This huge scale model of Earth is guaranteed to inspire and impress audiences of all ages. On top of that we have a jam-packed programme of hands on family fun in the daytime, and fascinating Dome events in the evening. There’s something to get everyone sparked up about this April!”

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Notes to editors:

Edinburgh Science Festival, 4-19 April

[@EdSciFest](http://www.sciencefestival.co.uk) / www.facebook.com/EdinburghScienceFestival

To book the tickets for this year's Science Festival visit the website or call 0131 226 0005.

Images from the programme launch photo call available here:

https://www.dropbox.com/sh/c7dg9xy8vj2wmti/AAB_676bL_S3EK3tLswYBrWka?dl=0

Event images available here:

<https://www.dropbox.com/sh/gaf6zzdbzjenm6/AACp42CtibwGoL6wyfT31yWya?dl=0>

Edinburgh Science Festival, founded in 1989, is an educational charity that aims to inspire people of all ages and backgrounds to discover the world around them.

Each year it delivers the UK's largest Science Festival with almost 270 events for families and adults over the course of two weeks. Its vibrant and varied programmes include everything from fun family days out to talks and discussions from pioneering thinkers. Family festivalgoers can enjoy five floors of sensational science at City Art Centre, talks with world-famous scientists at the Pleasance and a host of hands-on activities and more at the National Museum of Scotland and other partner venues across Edinburgh.

Alongside the annual festival in Edinburgh, the organisation has a **strong focus on education** and runs a touring programme that visits schools around Scotland throughout the year. For more information on Edinburgh Science Learning click [here](#).

With 30 years of experience in creating high quality and engaging science events, Edinburgh Science is a world leader in its field. Alongside its core activities in Scotland, the **charity also operates internationally**. For more information on Edinburgh Science Worldwide click [here](#).

Sponsors

Principal:

City of Edinburgh Council

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The Scottish Government Festivals Expo Fund

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Scotland's Year of Coasts and Waters 2020

For further information, interviews or photos please contact Magda Paduch at The Corner Shop PR: magda@thecornershoppr.com / 0758 316 4070.