



FREE ENTRY



SUMMER SCIENCE

EXHIBITION

4 – 9 JULY 2023



PROGRAMME



THE
ROYAL
SOCIETY

 @royalsociety #summerscience

Opening times

TUESDAY 4 JULY

6pm – 10pm (18+ only)

WEDNESDAY 5 JULY

10am – 4.30pm

THURSDAY 6 JULY

10am – 4.30pm

FRIDAY 7 JULY

10am – 6pm

SATURDAY 8 JULY

10am – 6pm

SUNDAY 9 JULY

10am – 6pm

**Last entry is 30 minutes
before closing.**

Scan the QR code
to view the full
programme online.



General information

Photography policy

Please be aware that photography/filming may take place during your visit to the Royal Society. If you do not wish to consent, please visit the information desk to collect an opt-out sticker from a member of staff. If you wish to use photography or filming equipment at the exhibition, remember to respect visitors wearing a 'no photography' sticker who do not wish to be photographed/filmed.

Accessibility

We strive to make the exhibition as accessible to everyone as possible, including large print programmes available on request and portable seats. Our staff, identifiable by a red 'staff' t-shirt, are always available to help. Several staff are trained disability champions, identifiable by their badge.

Large print programmes are available from the information desk.

Staff

Should you require any help during your visit to the Royal Society, our exhibition team will be happy to assist you. You can pop to the information desk or our exhibition team will be around the building, identifiable by their red 'staff' t-shirts.

Welcome

It is our absolute pleasure to welcome you to the 2023 Summer Science Exhibition.

The programme this year is more varied than ever, with no two days the same. Alongside our nine flagship exhibits, which are here all week, we have a packed programme of talks, hands-on activities and drop-in workshops from both projects and researchers we fund and partners we work with.

The Young researcher zone is back by popular demand during the week, where you can meet students from across the UK who are working in partnership with scientists to investigate real-world problems, as part of the Society's Partnership Grants scheme.

We invite you to get hands-on with drumming to improve your brain plasticity, forecast the next eruption of a quiet volcano or visit our basement to discover what was exhibited at this event one hundred years ago. You can also visit our Healthy living and Healthy planet rooms to explore the research looking to help us live healthier, longer lives and adapt to climate change.

And if your appetite for discovery is still strong you can subscribe to our YouTube channel to watch interviews, lightning talks and more.

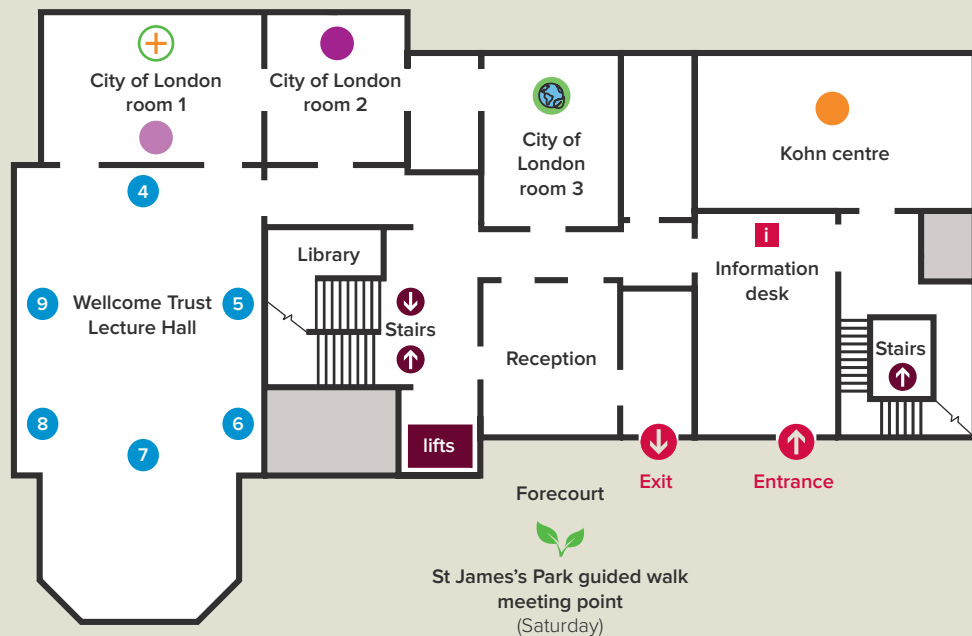
I do hope you enjoy your visit to the Exhibition.



Adrian Smith
President of the Royal Society

Map

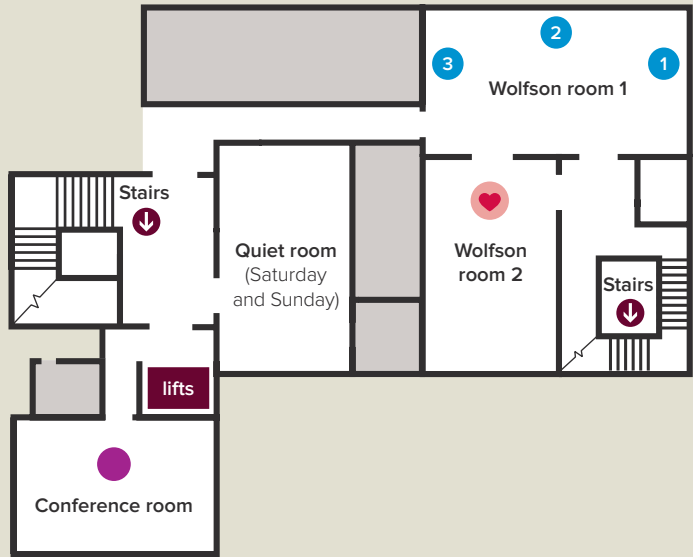
Ground floor










Basement







First floor



-  Flagship exhibits
-  Lightning talks
-  Drop-in activities
-  Drop-in activities (Saturday and Sunday only)
-  Science century

-  Young researcher zone (Wednesday – Friday only)
-  Healthy planet zone
-  Healthy living zone

General information

-  Café
-  Baby changing facilities
-  Water fountain
-  Cloakroom

Flagship exhibits

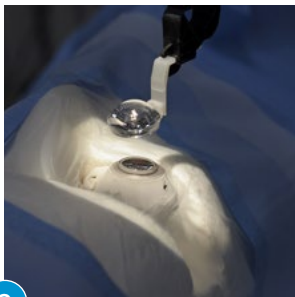
First floor



1

Drumming for health

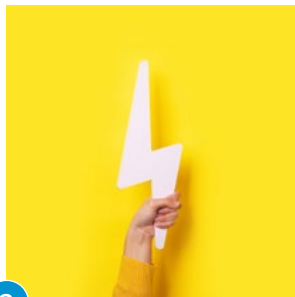
Pick up a workout with the sticks and see how you can drum your way to a healthier life.



2

Micro-robotics for eye surgery

How does your hand's dexterity compare to that of a micro-robot?



3

Measuring electricity by counting electrons

What is the positive of counting negative particles to measure electricity?

Credit: istock.com / Alesnunt

Ground floor



4

Sensing volcanoes

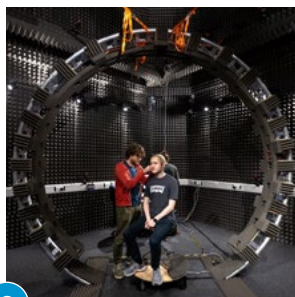
Use your sensory and decision-making skills to forecast and plan for the next volcanic eruption.



5

Gene-ius fish: diving into human mental health with zebrafish

How can zebrafish give insight into human mental health conditions?



6

Virtual audio: illusion or reality?

Have your own head scanned and see how virtual audio can help sensory impairments.



7

From Mars to humans

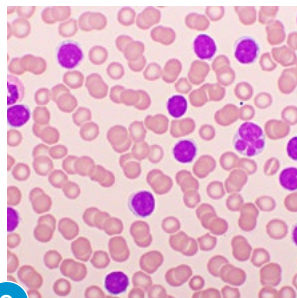
Drive a Mars Rover and discover how its technology is used in detecting bone disease.



8

Revolutionising rehabilitation

Explore how lab-grown muscles and self-powered clothing can improve recovery.



9

ChromaDose: improving chemotherapy for children

Discover how new blood-testing tools can be used to personalise chemotherapy in children.

Credit: iStock.com / jarun011

Young researcher zone

Wednesday – Friday



From investigating the biodiversity of their local nature reserve to learning how exams effect sleeping patterns in school children, discover the wealth of research happening in schools across the UK, as part of the Royal Society's Partnership Grants scheme.



Basement



Science century

Discover some of the scientific innovations presented at the Society's 1923 *Conversazione*. From high-speed cameras to giant fossils, research was advancing rapidly in the 1920s.

Talks and activities

Wednesday 5 July

Talks

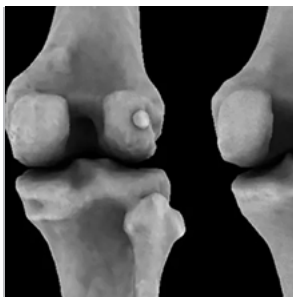
Admittance for our talks is first come, first served.

.....

Drop-in activity

These activities run continuously and you can drop in at any time. Please note if the venue is at capacity you may have to wait.

.....



Drop-in activity

Wolfson room 2

Time 10am – 4.30pm

Do you have extra bones in your knee?

Fabella or fact? Explore the anthroengineering behind why some people have an extra bone in their knee.

If you are over 18 years old and want to find out if you have a fabella, come on in to get an ultrasound of your knee (please wear shorts, if possible).



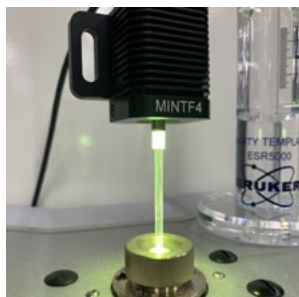
Drop-in activity

Wolfson room 2

Time 10am – 4.30pm

1,000 days: joining the dots in science for global child health

A child's first 1,000 days sets the bar for their development and growth. And there are 149 million children in the world who won't reach their potential in life because their start is impaired by poor conditions. The Action Against Stunting Hub is working in Senegal, India and Indonesia to unpack this complex global problem.



Drop-in activity

Wolfson room 2

Time 10am – 4.30pm

Radicals!

Join the team from the University of Manchester, National Research Facility for EPR and from Swansea University to find out what radicals are, how and why we study them and the reactions and technologies for which they are used.



Drop-in activity

City of London room 3

Time 10am – 4.30pm

Hands on with objects – diagnosing and treating illness

From ancient amputations to Tudor temperature checks, meet the Science Museum team studying the historical tools used to diagnose and treat illnesses.



Drop-in activity

City of London room 3

Time 10am – 4.30pm

Microbes that manage our waste

How can microbes turn rubbish into riches? Discover how researchers at the University of York are using microbes to turn sewage sludge, food waste and crop residues into energy using anaerobic digestion.

Wednesday 5 July



Talk and workshop

Kohn centre

Time 11am and 3pm

Test a career

There's only one way to find out what it's like to work in science and tech roles – try out a job.

Join the the Science Museum Technicians for a talk and hands-on workshop with real STEM professionals, learning real skills used in the workplace.



Talk

Kohn centre

Time 12 noon and 2pm

Helen Sharman on STEM careers and space travel

Join us for a session of inspiration and exploration as we welcome Helen Sharman, the first British astronaut to travel to space, for an engaging and thought-provoking talk.

Designed for students aged 14 and older, this talk will delve into the exciting world of STEM possibilities, including space travel and more.



Talk

Kohn centre

Time 1pm

From bones to biomolecules: can the dead teach us anything?

From caring for the living as a nurse to studying the skeletons of the distant dead, Professor Charlotte Roberts FBA will take you on her bioarchaeological journey.

Thursday
6 July



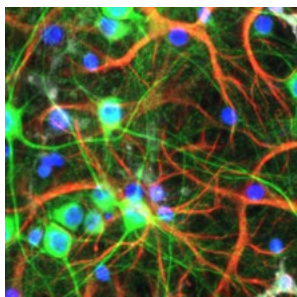
Drop-in activity

Wolfson room 2

Time 10am – 4.30pm

Can we print your perfect pill?

The concept of 3D printed pills and personalised medicine is an exciting development in the field of healthcare. Find out more about printing techniques and applications, interact with a range of curated pieces and see a 3D printer in action.



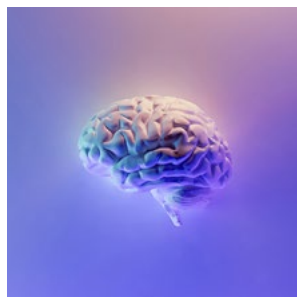
Drop-in activity

Wolfson room 2

Time 10am – 4.30pm

Could you be a dementia researcher?

An insight into the life of scientists in the UK Dementia Research Institute. Put on a lab coat and grow some neurons and mini-brains to help us study what goes wrong in the brain in neurodegenerative disease.



Drop-in activity

Wolfson room 2

Time 10am – 4.30pm

Brain build up

Did you know that our brain cells play a game of Tetris every day? As we age, this game becomes increasingly challenging, especially in the context of dementia. Join us and compete against your friends to experience the daily life of a neuron as it fights to stay healthy.

Thursday 6 July



Drop-in activity

Wolfson room 2

Time 10am – 4.30pm

Do you have extra bones in your knee?

Fabella or fact? Explore the anthroengineering behind why some people have an extra bone in their knee.

If you are over 18 years old and want to find out if you have a fabella, come on in to get an ultrasound of your knee (please wear shorts, if possible).



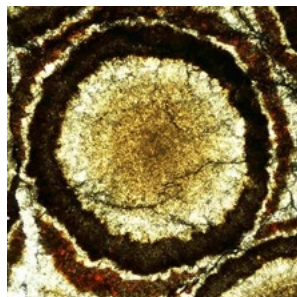
Drop-in activity

City of London room 3

Time 10am – 4.30pm

Beware: floods ahead

Join scientists from the University of Reading to try your hand at flood prediction and managing the risk it poses, or interact with the climate stripes – a graphic representation of how the world is warming.



Drop-in activity

City of London room 3

Time 10am – 4.30pm

Mining a sustainable future

Learn how the minerals and metals mined from Earth can power a sustainable future.

Meet the scientists from the Natural History Museum and iCrag Dublin digging deeper into how we can find these minerals and metals, and how we can produce them sustainably.



Talk

Kohn centre

Time 11am

From bones to biomolecules: can the dead teach us anything?

From caring for the living as a nurse to studying the skeletons of the distant dead, Professor Charlotte Roberts FBA will take you on her bioarchaeological journey.



Talk

Kohn centre

Time 12 noon and 2pm

Helen Sharman talks about STEM careers and space travel

Join us for a session of inspiration and exploration as we welcome Helen Sharman, the first British astronaut to travel to space, for an engaging and thought-provoking talk.

Designed for students aged 14 and older, this talk will delve into the exciting world of STEM possibilities, including space travel and more.



Talk

Kohn centre

Time 1pm

What happens when there's too much water?

Professor Hannah Cloke (University of Reading) talks about what inspired her to become a flooding specialist. She explores how scientists use super computers, working with millions of pieces of data, to provide global forecasting models for all the major rivers on earth.

Thursday
6 July

Friday
7 July



Credit: flickr.com / Ivan Radic

Talk

Kohn centre

Time 3pm

Resilient electric powertrain for electric vehicles

Electric vehicles are becoming a more common sight on our roads and with this, questions relating to safety and roadworthiness are of increasing importance. Dr Yihua Hu, King's College London and member of the UK Young Academy, joins us to discuss the challenges and the solutions of enhancing the safety of our cars and other vehicles.



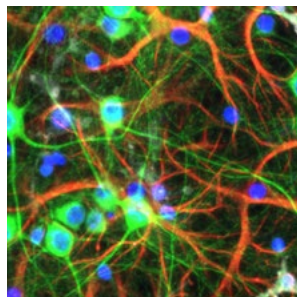
Drop-in activity

Wolfson room 2

Time 10am – 6pm

Can we print your perfect pill?

The concept of 3D printed pills and personalised medicine is an exciting development in the field of healthcare. Find out more about printing techniques and applications, interact with a range of curated pieces and see a 3D printer in action.



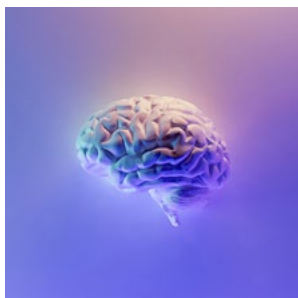
Drop-in activity

Wolfson room 2

Time 10am – 6pm

Could you be a dementia researcher?

An insight into the life of scientists in the UK Dementia Research Institute. Put on a lab coat and grow some neurons and mini-brains to help us study what goes wrong in the brain in neurodegenerative disease.



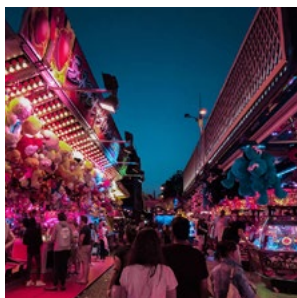
Drop-in activity

Wolfson room 2

Time 10am – 6pm

Brain build up

Did you know that our brain cells play a game of Tetris every day? As we age, this game becomes increasingly challenging, especially in the context of dementia. Join us and compete against your friends to experience the daily life of a neuron as it fights to stay healthy.



Drop-in activity

Wolfson room 2

Time 10am – 6pm

Two eyed funfair

Join neuroscientists from the University of Oxford to find out how studying two eyed vision helps us understand how the brain learns, while playing some summer funfair games and winning some prizes.



Drop-in activity

Conference room

Time 10am – 6pm

The great ape challenge

Join Professor Gillian Forrester and the Me, Human team to test your puzzle-solving skills against chimpanzees, gorillas and orangutans in an interactive showcase investigating evolution and the development of language in different ape species.

Friday
7 July



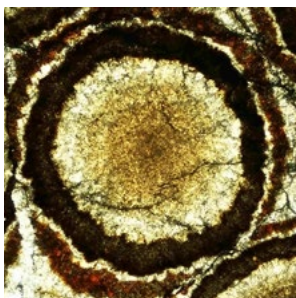
Drop-in activity

City of London room 3

Time 10am – 6pm

Beware: floods ahead

Join scientists from the University of Reading to try your hand at flood prediction and managing the risk it poses, or interact with the climate stripes – a graphic representation of how the world is warming.



Drop-in activity

City of London room 3

Time 10am – 6pm

Mining a sustainable future

Learn how the minerals and metals mined from the Earth can power a sustainable future; and meet the scientists from the Natural History Museum and iCrag Dublin, digging deeper into how we can find these minerals and metals, and how we can produce them sustainably.



Drop-in activity

Forecourt

Time 10am – 6pm

Meat your persona

Visit the yellow horsebox outside to discover your 'meat persona' and find out more about how your meat consumption might impact your health and the environment.



Talk

Kohn centre

Time 11am

Helen Sharman on STEM careers and space travel

Join us for a session of inspiration and exploration as we welcome Helen Sharman, the first British astronaut to travel to space, for an engaging and thought-provoking talk. Designed for students aged 14 and older, this talk will delve into the exciting world of STEM possibilities, including space travel and more.



Talk

Kohn centre

Time 12 noon

What happens when there's too much water?

Professor Hannah Cloke talks about what inspired her to become a flooding specialist. She explores how scientists use super computers, working with millions of pieces of data, to provide global forecasting models for all the major rivers on earth.



Talk

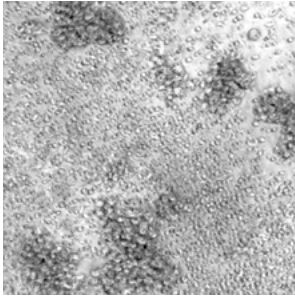
Kohn centre

Time 1pm

Healthy ageing: designing for our future selves

Join researchers from the Design Age Institute as they explore the power of innovative age-inclusive design to help everyone age happier and healthier as well as debunk common ageing myths and misconceptions.

Friday
7 July



Talk

Kohn centre

Time 3pm

Ageing and the rise of the clones

Ageing is an inevitable part of the life of any organism. For us humans, it has many personal and societal implications. Dr Elisa Laurenti, Sir Henry Dale Research Fellow, will talk about ageing from the perspective of our most regenerative tissue, the blood.



Talk

Kohn centre

Time 3.30pm

Seeing with two eyes – a window into brain plasticity

Visual neuroscientist and Royal Society Research Fellow, Dr Betina Ip, will explain how our ability to see using two eyes provides a window into human brain plasticity.



Talk

Kohn centre

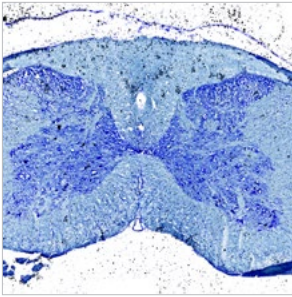
Time 4pm

Your divided brain

Professor Gillian Forrester will take the audience on a journey of the evolution of the human brain, dating back to the rise of vertebrates.

Join in using puppets to create a vertebrate tree of life whilst finding out how the two sides of our brain have evolved to control our behaviours in different ways.

Saturday 8 July



Talk

Kohn centre

Time 4.30pm

Back story: how to make nerves regrow in the spine

A spinal cord injury prevents communication between your brain and your body, leading to paralysis. But does this mean there is no possibility of recovery? Fresh from her lab, Dr Philippa Warren, Sir Henry Dale Research Fellow, will explore with you the exciting and hope filled potential of regenerative neuroscience.



Drop-in activity

Wolfson room 2

Time 10am – 6pm

Cricket in a warmer world

What will happen to our favourite summer sports under the harsh effects of climate change? Join the CC4 Museum of Welsh Cricket to learn about the challenges of playing sport in a warmer world and how sports stadia can help by becoming more environmentally friendly and sustainable.

Museum funded through the Places of science scheme.



Drop-in activity

Wolfson room 2

Time 10am – 6pm

Ageing well: past and present perspectives

The nineteenth century has much to tell us about our own attitudes towards the experience of ageing, particularly the idea of ‘growing old gracefully’. Explore these and your own ideas of what it means to age well through hands-on activities for all ages.

Saturday 8 July



Drop-in activity

Wolfson room 2

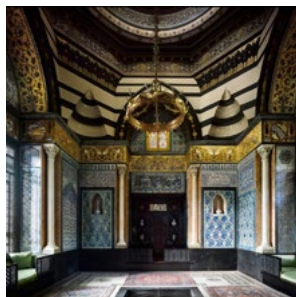
Time 10am – 6pm



Drop-in activity

Wolfson room 2

Time 10am – 6pm



Workshop

Conference room

Time 10.30am, 11.30am,
12.30pm, 2.30pm and
3.30pm

The great ape challenge

Join Professor Gillian Forrester and the Me, Human team to test your puzzle-solving skills against chimpanzees, gorillas and orangutans in an interactive showcase investigating evolution and the development of language in different ape species.

Are you hot or not?

We can often tell how someone is feeling by looking at their facial expressions, but emotion is more than skin deep! Come and visit our Me, Human stand and see yourself through the lens of a thermal imaging camera.

The sounds of music

Join Leighton House for fun, practical workshops exploring the science of music and sound and finding out how sounds are changed. Throughout the day you can learn how the sounds of music are made and enjoy the displays whilst listening to birdsong and identifying the birds.

Museum funded through the Places of science scheme.



Performance

Conference room

Time 2pm, 3pm and 4.30pm

The sound of home

A performance by renowned composer and musician, Maya Youssef, using the Qanun – the string instrument she is famed for playing.

Part of the Leighton House programme.



Drop-in activity

City of London room 3

Time 10am – 6pm

National Geographic Explorers

Meet National Geographic Society staff and Explorers who will share their work to illuminate and protect the wonder of our world. You will get the opportunity to meet Explorers Natalie Sinclair, Charles Emogor, and Rosamira Guillen in person and talk to them about their projects on whales, tamarins and pangolins.



Drop-in activity

City of London room 3

Time 10am – 6pm

Brickiversity

Join researchers from the John Innes Centre to create your own plant from building bricks and uncover the huge diversity that simple rules and the environment can generate.

Saturday 8 July



Drop-in activity

City of London room 3

Time 10am – 6pm



Drop-in activity

City of London room 2

Time 10am – 6pm



Drop-in activity

City of London room 1

Time 10am – 6pm

Nature overheard: tune in to your streets

Join the Natural History Museum's nature overheard project to investigate how noise pollution affects insects near roads. Come talk to scientists, explore Museum specimens up close, and find out how you can get involved.

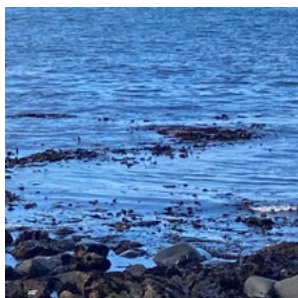
Kid's zone: Little House of Science

Ever wondered what puts the shine in the Sun, or how your incredible circulatory system works? Do you have a knack for engineering and inventions?

Join the Little House of Science to take part in fascinating experiments from growing crystals to engineering your own flying machines and so much more.

Sensing danger

More than 5,000 people are killed or maimed each year by landmines. Talk to the University of Manchester researchers developing the next generation of metal detectors, learn how artificial reality may be used in the future and try finding landmines yourself in virtual reality.



Drop-in activity

City of London room 1

Time 10am – 6pm

Marconi's Moyle: radio waves across the sea

Join Ballycastle Museum and W5 Belfast for hands on activities to learn about Guglielmo Marconi's fascinating discoveries, the history of long-distance communication, the science of radio waves, and the special locations Ballycastle and Rathlin.

Museum funded through the Places of science scheme.



Drop-in activity

Café

Time 10am – 6pm

Britain's beastly past

Come face-to-face with the fossil remains of Arctic foxes and reindeer, woolly rhinos and hyaenas from new cave excavations in southern Britain and have a go, guided by palaeontologist Professor Danielle Schreve, at identifying small mammal teeth under the microscope.



Guided tour

Forecourt

Time 10am – 6pm
meeting on the hour,
every hour.

St James's Park guided walk

Join biologists from The Royal Parks for a free guided walk to learn about the wildlife found in St James's Park.

Please note the first tour is at 10am, then taking place on the hour, every hour, until the last tour at 5pm.

Saturday 8 July



Drop-in activity

Forecourt

Time 10am – 6pm

Meat your persona

Meat your persona is an intriguing installation in a yellow horsebox designed to allow visitors to discover their 'meat persona' and find out more about how their meat consumption might impact their health and the environment.



Talk

Kohn centre

Time 11am

Life on the edge: mammals of the last Ice Age in Britain

For over a decade, Professor Danielle Schreve has been researching how animals responded to climate change at the end of the last Ice Age. Her talk will tell the tale of changing landscapes, how early humans faced climate change and discuss how this information can be used to support modern conservation initiatives.



Talk

Kohn centre

Time 11.30am

The pangolin paradox: why are pangolins killed?

Pangolins are the world's most trafficked wild mammals, with their scales traded in large quantities across continents. But does this mean that all pangolins are killed for the illicit trans-national trade?

Charles Emogor explores local dynamics of pangolin hunting and use, and ways people can contribute towards saving the scaly anteaters from possible extinction.



Talk

Kohn centre

Time 12 noon

Your divided brain

Professor Gillian Forrester will take the audience on a journey of the evolution of the human brain, dating back to the rise of vertebrates.

Join in using puppets to create a vertebrate tree of life whilst finding out how the two sides of our brain have evolved to control our behaviours in different ways.



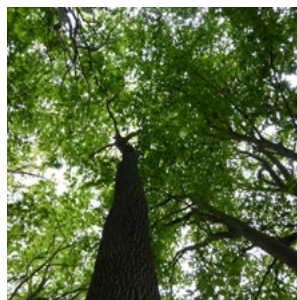
Talk

Kohn centre

Time 12.30pm

Cricket in a warmer world

What challenges will we face playing summer sports in a warmer world? Join Dr Andrew Hignell from the CC4 Museum of Welsh Cricket as we consider the impacts of climate change on sport in the UK, as well as other parts of the world including Australia and India.



Talk

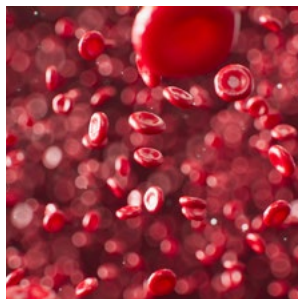
Kohn centre

Time 1pm

Rising from the ashes

Dr Anne Edwards (John Innes Centre) has long been a volunteer for Norfolk Wildlife Trust and helps manage ancient woodland in South Norfolk. In this talk she explores the arrival of ash dieback in 2012 and how her worlds of volunteer work and scientific research collided.

Saturday
8 July



Talk

Kohn centre

Time 1.30pm

How we make blood: a stem cell story

The human body makes 3 million blood cells per second. Cambridge Stem Cell Institute scientist Dr Elisa Laurenti, Wellcome Royal Society Sir Henry Dale Fellow, joins us to answer your questions about how, and why, we make so many of these powerful and important cells.



Credit: iStock.com/Wirestock

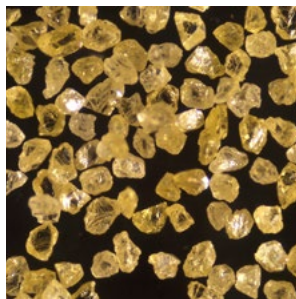
Talk

Kohn centre

Time 2pm

Unravelling the mysteries of humpback whale songs

By studying the fine-scale changes in humpback whale songs, Natalie Sinclair aims to uncover the complexities of these mysterious sounds and what they can reveal about the evolution of animal culture. Go on a journey to the depths of the oceans to listen to some of the whale's greatest hits, as you learn about how you can appreciate and conserve the unique cultures of other animals.



Talk

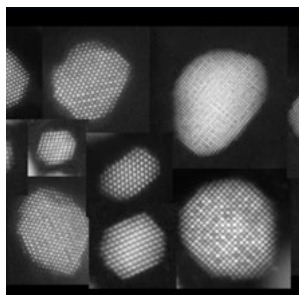
Kohn centre

Time 2.30pm

Surface functionalised diamond for antifungal applications in space

Dangerous fungi currently inhabit spacecraft and space stations, capable of corroding and degrading materials, and ultimately leading to equipment failure.

Dr Haitao Ye discusses how diamonds do more than just sparkle, and how their hardness and antifungal properties can be harnessed in space.



Talk

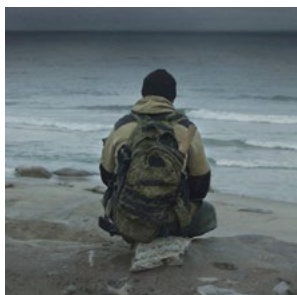
Kohn centre

Time 3pm

**Clearing the air:
microscopy unveils
NO_x emission reduction**

Aakash Varambhia, data scientist at Johnson Matthey, delves into the fascinating world of microscopy and its pivotal role in analysing clean air particulate filters to combat NO_x emissions.

Discover how cutting-edge microscopy techniques provide crucial insights into clean air filters, revolutionizing our approach to reducing harmful emissions.



Screening

Kohn centre

Time 4pm and 5pm

Haulout

Nominated for the 95th Academy Awards for Best Documentary Short Film, Haulout follows scientist Maxim Chakilev, who observes the life of walrus at Cape Heart-Stone in the Chukchi Sea where rising temperatures bring about an unexpected change.

The screening will be followed by a Q&A session with director Evgenia Arbugaeva, National Geographic Society Storytelling Fellow.



Drop-in activity

Wolfson room 2

Time 10am – 6pm

**Cricket in a
warmer world**

What will happen to our favourite summer sports under the harsh effects of climate change? Join the CC4 Museum of Welsh Cricket to learn about the challenges of playing sport in a warmer world and how sports stadia can help by becoming more environmentally friendly and sustainable.

Museum funded through the Places of science scheme.

Sunday 9 July



Drop-in activity

Wolfson room 2

Time 10am – 6pm

Ageing well: past and present perspectives

The nineteenth century has much to tell us about our own attitudes towards the experience of ageing, particularly the idea of ‘growing old gracefully’. Explore these and your own ideas of what it means to age well through hands-on activities for all ages.



Drop-in activity

Wolfson room 2

Time 10am – 6pm

Are you hot or not?

We can often tell how someone is feeling by looking at their facial expressions, but emotion is more than skin deep. Come and visit our Me, Human stand and see yourself through the lens of a thermal imaging camera.



Drop-in activity

Wolfson room 2

Time 10am – 6pm

The great ape challenge

Join Professor Gillian Forrester and the Me, Human team to test your puzzle-solving skills against chimpanzees, gorillas and orangutans in an interactive showcase investigating evolution and the development of language in different ape species.



Drop-in activity

Conference room

Time 10am – 6pm

Britain's beastly past

Come face-to-face with the fossil remains of Arctic foxes and reindeer, woolly rhinos and hyaenas from new cave excavations in southern Britain and have a go, guided by palaeontologist Professor Danielle Schreve, at identifying small mammal teeth under the microscope.



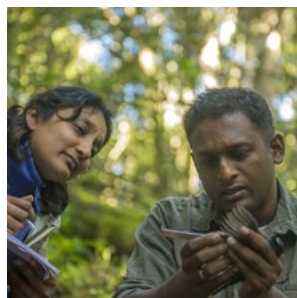
Drop-in activity

City of London room 3

Time 10am – 6pm

Nature overheard: tune in to your streets

Join the Natural History Museum's Nature Overheard project to investigate how noise pollution affects insects near roads. Come talk to scientists, explore Museum specimens up close, and find out how you can get involved.



Drop-in activity

City of London room 3

Time 10am – 6pm

National Geographic Explorers

Meet National Geographic Society staff and Explorers who will share their work to illuminate and protect the wonder of our world. You will get the opportunity to meet Explorers Natalie Sinclair, Charles Emogor, and Rosamira Guillen in person and talk to them about their projects on whales, tamarins and pangolins.

Sunday 9 July



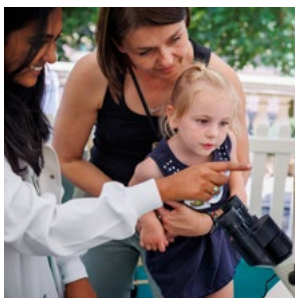
Drop-in activity

City of London room 3

Time 10am – 6pm

Brickiversity

Join researchers from the John Innes Centre to create your own plant from building bricks and uncover the huge diversity that simple rules and the environment can generate.



Drop-in activity

City of London room 2

Time 10am – 6pm

Kid's zone: Little House of Science

Ever wondered what puts the shine in the Sun, or how your incredible circulatory system works? Do you have a knack for engineering and inventions?

Join the Little House of Science to take part in fascinating experiments from growing crystals to engineering your own flying machines and so much more.



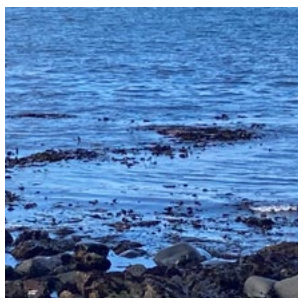
Drop-in activity

City of London room 1

Time 10am – 6pm

Sensing danger

More than 5,000 people are killed or maimed each year by landmines. Talk to the University of Manchester researchers developing the next generation of metal detectors, learn how artificial reality may be used in the future and try finding landmines yourself in virtual reality.



Drop-in activity

City of London room 1

Time 10am – 6pm

Marconi's Moyle: radio waves across the sea

Join Ballycastle Museum and W5 Belfast for hands on activities to learn about Guglielmo Marconi's fascinating discoveries, the history of long-distance communication, the science of radio waves, and about Ballycastle and Rathlin, two very special outposts in discovery.

Museum funded through the Places of science scheme.



Drop-in activity

Forecourt

Time 10am – 6pm

Meat your persona

Visit the yellow horsebox outside to discover your 'meat persona' and find out more about how your meat consumption might impact your health and the environment.



Talk

Kohn centre

Time 11am

Do you have extra bones in your knee?

What is anthroengineering? Why do some individuals have an extra bone behind their knee called the fabella? Dr Michael Berthaume (King's College London, executive member of UK Young Academy) looks at why that little bone behind your knee is 3.5 times more common today than 100 years ago.

Sunday
9 July



Talk

Kohn centre

Time 11.30am

Your divided brain

Professor Gillian Forrester will take the audience on a journey of the evolution of the human brain, dating back to the rise of vertebrates.

Join in using puppets to create a vertebrate tree of life whilst finding out how the two sides of our brain have evolved to control our behaviours in different ways.



Talk

Kohn centre

Time 12 noon

Rising from the ashes

Dr Anne Edwards (John Innes Centre) has long been a volunteer for Norfolk Wildlife Trust and helps manage ancient woodland in South Norfolk. In this talk she explores the arrival of ash dieback in 2012 and how her worlds of volunteer work and scientific research collided.



Talk

Kohn centre

Time 12.30pm

The pangolin paradox: why are pangolins killed?

Pangolins are the world's most trafficked wild mammals, with their scales traded in large quantities across continents. But does this mean that all pangolins are killed for the illicit trans-national trade?

Charles Emogor explores local dynamics of pangolin hunting and use, and ways people can contribute towards saving the scaly anteaters from possible extinction.



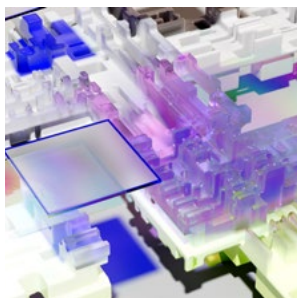
Talk

Kohn centre

Time 1pm

The meat of the matter – can we choose to reduce our meat consumption?

In this thought-provoking talk, eating behaviour scientist, Dr Elisa Becker tackles the complex challenge of reducing meat consumption. She explains why even well-intentioned individuals struggle to change their diets, dispelling the notion that humans are solely driven by reason.



Talk

Kohn centre

Time 1.30pm

AI: clever, clumsy or clueless?

Professor Marion Oswald (Northumbria University) talks about what we will miss if we don't find out what AI really does, and what it doesn't do, with a little help from the movie 'The Hunt for Red October'. Featuring an opportunity to volunteer to be the algorithm.



Talk

Kohn centre

Time 2.30pm

Cricket in a warmer world

Join Dr Andrew Hignell from the CC4 Museum of Welsh Cricket to consider some of the solutions which cricket clubs and national governing bodies could implement to overcome the impacts of playing sport in a world affected by climate change. Could sustainable and eco-friendly stadia be the answer?

Sunday
9 July



Talk

Kohn Centre

Time 3pm

Surface functionalised diamond for antifungal applications in space

Dangerous fungi currently inhabit spacecraft and space stations, capable of corroding and degrading materials, and ultimately leading to equipment failure.

Dr Haitao Ye discusses how diamonds could be used for its renowned hardness and also antifungal properties in space.



Screening

Kohn Centre

Time 4pm and 5pm

Expedition Everest

The documentary highlights the 2019 National Geographic and Rolex Perpetual Planet Everest Expedition, where dozens of scientists converge to investigate what secrets the world's highest peak has to tell us about our changing climate.

The screening will be followed by a Q&A session with climate scientist Tom Matthews.



Refreshment break?

Located in the basement, visit our café for a break during the exhibition. Serving a tasty range of food and drinks, it is a great way to reflect on the science on show and relax for a while.

Please note, the café closes 30 minutes before the exhibition each day. Food and hot drinks are not allowed around the exhibition.

FREE ONLINE EVENT



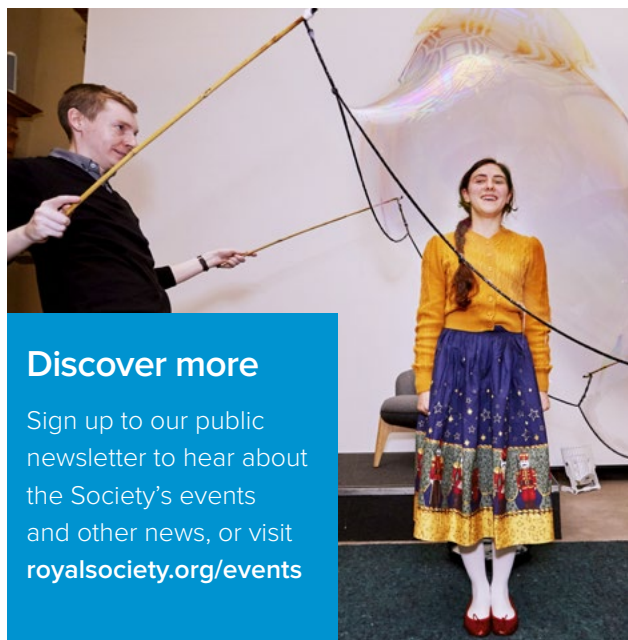
SUMMER SCIENCE LIVE

INTERVIEWS AND DEMONSTRATIONS

BROADCAST FROM THE EXHIBITION

SUNDAY 9 JULY 2023, 11AM – 2PM

 [Youtube/royalsociety](https://www.youtube.com/royalsociety)



Discover more

Sign up to our public newsletter to hear about the Society's events and other news, or visit royalsociety.org/events

What do you think?

Help shape our future events by completing the feedback survey in the reception area or scan the QR code to complete it online.



The Royal Society

The Royal Society is a self-governing Fellowship of many of the world's most distinguished scientists drawn from all areas of science, engineering, and medicine. The Society's fundamental purpose, reflected in its founding Charters of the 1660s, is to recognise, promote, and support excellence in science and to encourage the development and use of science for the benefit of humanity.

The Society's strategic priorities are:

- The Fellowship, Foreign Membership and beyond
- Influencing
- Research system and culture
- Science and society
- Corporate and governance

For further information

The Royal Society
6 – 9 Carlton House Terrace
London SW1Y 5AG

T +44 20 7451 2500

W royalsociety.org



Founded in 1660, the Royal Society is the independent scientific academy of the UK, dedicated to promoting excellence in science.

Registered Charity No 207043
Issued: June 2023 DES8400_32