

Five things you need to know today Edinburgh!



Botanic Garden – Football – Science Festival – EdinburghReportage – Spring Fling

If you are reading this before 11 today then all is well. BUT GET UP AND GET OUT NOW! The best of today's weather is due before noon according to the BBC weather which you will find [here](#).

So if you're quick you will be able to go and see Le Bateau at the Botanics before it gets too wet and you have to go and find somewhere to have [brunch](#).

Le Bateau is an outdoor exhibition on display till June this year in the Chinese Hillside and was remade for the Edinburgh Art Festival exhibition *Franz West & Artist Collaborations* at Inverleith House.

We are deliberately not going to give you any photos of it. Go and have a look and [tweet](#) some photos to us!

There is a big match on today at Easter Road so best avoid that area if you are not heading to the match which begins at 4.

To ensure the game is enjoyable for fans, officers and stewards will be undertaking searches in and around Easter Road stadium to make sure alcohol isn't brought into the stadium and that supporters who are under the influence of alcohol are not allowed entry.



Specialist search dogs like Harvey who we met the other day with his handler will also be working to detect anyone in possession of fireworks or flares, and those found to be in possession of such items will be stopped from entering, arrested and may be subject to a banning order.

In recognition of the impact the final will have across the city centre, a strict no public drinking ban will be in force supported by local bye-laws.

Licensing officers will also be carrying out inspections of pubs and clubs across the city where crowds gather to watch the game.

Teams from Police Scotland's Operational Support Division are also working with local officers and the City of Edinburgh Council to minimise any traffic impact as a result of the estimated 30,000 fans arriving in the city on public transport and coaches.

Police officers will be directing coach traffic carrying Rangers supporters to the Regent Road and London Road areas, and Raith Rovers coaches are being directed towards the Leith Links area.

Many fans however are expected to make their own way to the match and drivers are being warned that there are no parking arrangements near the stadium.

Watch Chief Superintendent Mark Williams explaining the way the operation will work today:-

Edinburgh International Science Festival continues today at Summerhall with a food related event beginning at 11am.

Their Facebook page explains who will be there:-

A day long farmers' market with a scientific twist, SciMart brings together food producers, researchers and chefs to reveal the fascinating science behind some of our favourite foodstuffs. With stalls, demos, talks and tasty treats, SciMart brings you a packed menu and food for thought in the form of cooking demos from top Edinburgh chef Mark Greenaway and free, drop in talks from food experts.

- *Ali Gower, The Chocolate Tree – The Science of Chocolate: From Bean to Bar*
- *Christine Knight, University of Edinburgh – Scottish Nutrition in the Newspapers – Stalking the Deep-Fried Mars Bar*
- *Craig Macfarlane, Bugs For Life – There's a Fly in my Soup: Exploring Entomophagy*
- *Eva Schonveld, Transition Scotland – Saving the Planet Three Times A Day*
- *Shona Glancy, Scotch Whisky Research Institute – Detecting Aromas in Scotch Whisky*
- *Alan Park, Scotch Whisky Association – Global Protection of Scotch Whisky*
- *Simon Pampena, Stand Up Mathematician – Mathematical Food*
- *The James Hutton Institute – Whisky Making, the Science Behind the Art*
- *Ylva Hagland and Daniel Stunell, Zero Waste Scotland – Scotland's Food Waste: Difficult to Measure, Easy to Fix?*
- *Pete Ritchie, Whitmuir Organics – Innovations in Vegetable Production*
- *Miles Irving, Forager – The Forager's Handbook*

In association with The James Hutton Institute.

There are also many Science Festival events on at the National

Museum of Scotland, until 20 April

We think it will be useful to list them all here for you. The Science Festival events always sell out quite quickly, and the boast at their opening party was that they have already sold more tickets ahead of time than ever before.

This spring, Edinburgh International Science Festival returns to the National Museum of Scotland to bring science to life with a brand new interactive showcase: *Making It... at the Museum* and a series of engaging and entertaining workshops, talks, presentations and demonstrations which the whole family can enjoy. Visit www.sciencefestival.co.uk for the full programme of events.

Science Festival family events at the Museum

Making It... at the Museum

5 – 20 April, 10:00-17:00

Grand Gallery

Free

This brand new interactive display takes centre stage in the Museum's Grand Gallery for this year's Festival. *Making It* gives you the chance to immerse yourself in accessible technologies and discover the maker movement. And there are lots of demonstrations and things to do: from 3D printing to giant drawing machines, and from electronics to DIY biology.

Lab Rats: Mammoth Poo Detectives

7 – 11 April, 11:00, 12:00, 14:00 & 15:00 (45 mins)

Free – limited spaces, sign up on the day with your adult helper

Suitable for ages 4-7

The Lab Rats scientists are using poo clues to track down mammoths and mastodons. Explore Ice Age environments through demonstrations and hands-on messy challenges.

Ice Ice Baby

14 – 18 April, 10:30, 11:30, 14:30 & 15:30 (30 mins)

Free – limited spaces, sign up on the day with your adult helper

Suitable for ages 3 and under

Bring your little ones for sensory science story sessions inspired by our *Mammoths and the Ice Age* exhibition.

Family events from the University of Edinburgh

5 – 19 April, 10:00-16:30

Learning Centre, Levels 2 & 4

Free – some events require a ticket – visit www.sciencefestival.co.uk for further information

Discover science with real scientists from The University of Edinburgh. Visit the National Museum of Scotland's Learning Centre for free, family-friendly drop-in activities, workshops and shows, covering subjects from chemistry, bio-sciences and maths, to engineering, medicine and computing.

Science Festival adult events at the Museum

Bruno Pontecorvo: Physicist and Atomic Spy?

8 April, 17:30-19:00

Auditorium

Cost: £8/£6/£4 students

Join acclaimed physicist Prof Frank Close of the University of Oxford to explore the life of Bruno Pontecorvo, a brilliant atomic physicist who defected from the West to the Soviet Union at the height of the Cold War. Learn about the mystery that surrounded his sudden disappearance, and his immense value for the Soviet Union as Frank opens up a world of intelligence and counter-intelligence involving blueprints of a nuclear reactor, the theft of the materials for an atomic bomb and reveals for the first time the tipoff that led to Pontecorvo's defection.

Extinct Mammoths, Endangered Elephants

9 April, 17:30-19:00

Auditorium

Cost: £8/£6/£4 students

What caused the extinction of the mammoth at the end of the last Ice Age – climate change, human hunting, or a combination of the two? Coinciding with the *Mammoths of the Ice Age* exhibition, Prof Adrian Lister of the Natural History Museum in London asks whether understanding the mammoth's demise can help us to conserve their close relatives, the living elephants.

Multiple Sclerosis: A Very Scottish Problem?

10 April, 13:00-14:00

Auditorium

Cost: £5

Scotland is recorded as having the highest prevalence of multiple sclerosis in the world, with around 10,000 people living with the condition. But why is this? And what might the sun (or lack of it) have to do with it? Researchers from the Anne Rowling Regenerative Neurology Clinic in Edinburgh

explore the impacts, advances and future outlooks for this condition and Anne Brown, a Scots writer living with Multiple Sclerosis, reads from her informative and comical blog for the MS Society.

Part of Healthy Lunches

Spotlight On: 3d At The Museum

10 April, 14:00-15:00

Learning Centre, Level 4

Free (ticket required)

Meet National Museum of Scotland curator Klaus Staubermann and Tom Seatter from Heriot Watt University and discover how the Museum is using 3D printing technology to find new ways to engage with the National Collections, from archæological artefacts to working machinery and modern jewellery.

Lol-garithms!

10 April, 17:30-19:00

Auditorium

Cost: £8/£6/Student offer – £4

Logarithms are turning 400 so it's time to party! First introduced by Edinburgh's John Napier in 1614, the scale of their importance cannot be underestimated. Navigators used them during the age of discovery; scientists built theories with them in the scientific revolution and modern applications range from measuring earthquakes to forensic accounting – logarithms are everywhere. Learn how to spot one with stand-up mathematician Simon Pampena as he celebrates the 400th anniversary of the logarithmic scale. This event will be an order of magnitude more fun than you might imagine!

Supported by Edinburgh Napier University

Choosing a Healthy Future?

10 April, 20:00-21:30

Auditorium

Cost: £8/£6/Student offer – £4

On 18 September Scotland must make a decision: remain part of the UK or chose independence. Our *Scotland Decides* series asks what this might mean for some key science related issues and the first topic under the microscope is healthcare. Broadcaster Lesley Riddoch is joined by Dr James Mittra of the Innogen Institute; Dr Richard Simpson MSP and Dr Jean Turner, former independent MSP and Chair of the Scottish Patients Association along with policy makers and health professionals, to consider the health challenges faced by the population. They will examine how the people of an independent Scotland might want their healthcare to be provided, discussing the future of free prescriptions, medical training and hospital services.

Richard Wiseman's Beginners' Guide to... The Earth

11 April, 13:00-14:00

Auditorium

Cost: £8/£6/Student offer – £4

Prof Richard Wiseman's entertaining and informative guides are back for another year... Join Richard in discussion with earth scientist and broadcaster Hermione Cockburn (BBC, *Coast*) as they travel back through geological time to find out about our planet's fascinating past. Along the way discover how geology began here in Edinburgh 200 years ago, what it takes to become a fossil, who found the first dinosaur and why landscapes look the way they do.

Mammoth Poo Detectives: Lab Rats for Adults

12 April, 14:00 & 15:30 (1 hr)

Learning Centre Level 4

Cost: £3

Why should kids have all the fun? Explore Ice Age environments through demonstrations and hands-on messy challenges, and use poo clues to track down mammoths and mastodons.

Face Off: Man vs Machine

12 April, 14:00

Grand Gallery

Free – drop-in

Artist and designer Dominic Wilcox's powerful and imaginative design projects provide inspiring new perspectives on the made world. In his spare time he likes to battle against 3D printers in real-life man vs machine challenges. Watch live as Dominic and his hand-picked team of artists & designers take on three 3D printers. Can a 3D printer challenge man's natural making skills?

In Two Minds?

12 April, 17:30-19:00

Auditorium

Cost: £8/£6/Student offer – £4

As Scotland prepares for September's referendum, this fascinating event, the second in our *Scotland Decides* series, explores the psychology of decision-making and uncovers the factors that influence our choices. Dr Tiffany Jenkins is joined by speakers including John Curtice, Professor of

Politics at the University of Strathclyde, and Dr Jan Eichhorn of the University of Edinburgh, to reveal how campaign strategies influence voters, the impact of 16 year old voters, the relationship between informed choice and unconscious bias and how our socioeconomic background can affect our decisions.

Barbed Wire Between Cultures?

13 April, 17:30-19:00

Auditorium

Cost: £8/£6/Student offer – £4

Fifty years on from CP Snow's (in)famous Rede Lecture, comedian Robin Ince asks if barbed wire still separates the 'two cultures' of the sciences and humanities. While both art galleries and science museums are packed every weekend, science is under-represented in mass media, but aren't both disciplines united by their desire to explain and express the world? Arts graduate turned science enthusiast, Helen Keen, makes one woman shows about space and robotics while Matthew Cobb is a Professor of Zoology who both studies gene evolution and paints with maggots. They join Robin to explore how art and science can together convey cosmic ideas, and plot how to tear down the barbed wire once and for all.

Stroke: Information and Rehabilitation

15 April, 13:00-14:00

Auditorium

Cost: £5

Around one in six people In Scotland will have a stroke, with about 12,500 having one every year. The damage caused by a stroke can be widespread and long lasting, and rehabilitation

can be slow but it is the topic of much on-going scientific research. Join Dr Nick Ward from UCL Institute of Neurology as he explores the reorganisation of brain networks to support recovery; Lorraine Ayres, Group Developmental Manager of national charity Different Strokes and Dr Gillian Mead from The University of Edinburgh who will discuss the importance of exercise after a stroke.

Part of Healthy Lunches

Exploring Alzheimer's Disease

17 April, 13:00-14:00

Auditorium

Cost: £5/ Student offer – £2.50

Healthy Lunches continues with an exploration of Alzheimer's disease, the most common form of dementia, and one for which there is as yet no cure. Little is known about its causes but we do know that Alzheimer's disease has far-reaching impacts on patients, their families and carers. Dr Gayle Doherty from the University of St Andrews gives an insight into recent research on the origins and ways to treat this disease while *Puppetry in Dementia Care* author Karrie Marshall explains her belief in the role of creativity in caring for people with dementia.

Part of Healthy Lunches

Spotlight On: Minerals and Mobile Phones

17 April, 14:00-15:00

Learning Centre Level 4

Free (ticket required)

Did you know that mobile phones contain a small amount of almost all the chemical elements? Sourced from rare earth materials, their extraction and production has serious human and ecological impact. Join curator Dr Rachel Walcott and Prof Simon Harley from the University of Edinburgh to find out more.

Behind the Scenes in Science Publishing

17 April, 17:30-19:00

Auditorium

Cost: £8/£6/Student offer – £4

Join Michael Rodgers, editor of science writing classics including Richard Dawkins' *The Selfish Gene*, and author and academic Prof Peter Atkins for a glimpse behind the scenes of the world of science publishing. Discover the challenges of writing about science, the workings of the world of publishing and the process of collaboration between writer and editor that lies at the heart of a successful science book.

The Perfect Mix?

17 April, 20:00-21:30

Auditorium

Cost: £8/£6/Student offer – £4

With September's referendum drawing ever closer, there are some big questions to be asked about the future of Scotland's energy in the next of our Scotland Decides series. What is Scotland's perfect energy mix? Would independence help us to make the most of the nation's renewable know-how? Could the lights stay on in a nuclear-free Scotland, and the economics add up? Broadcaster Lesley Riddoch is joined by Dr David Toke, Reader in Energy Politics at the University of Aberdeen; Dr Paul Harding, Executive Director of URENCO; Marco Biagi MSP

(SNP) and other politicians and key thinkers for a vital debate on how Scotland plans to power its future.

Supported by The Scottish Oil Club

The Blight of Ersatz Neuroscience

18 April, 20:00-21:30

Auditorium

Cost: £8/£6/Student offer – £4

The 'neuro' prefix is nowadays very fashionable. The growing interest in applying our knowledge of the human brain to different fields has resulted in the development of a number of new practices – some good, some bad, and some just crazy. Join The University of Edinburgh's Prof Sergio Della Sala as he explains how some enthusiastic scientists have over-simplified the findings from neuroscience and over-interpreted the outcome, giving rise to a number of tall tales on how the brain works.

Choose Your Scotland

19 April, 17:30-19:00

Auditorium

Cost: £8/£6/Student offer – £4

Whatever the outcome, Scotland's independence referendum will have a significant impact on Scottish life science research and innovation. The final event in our Scotland Decides series is an interactive 'Choose Your Own Adventure' style event will let you choose your own Scotland. Starting from the referendum, the audience will select a series of options, by popular vote, that will affect science, innovation and our everyday lives.

Presented by Innogen

We have seen the trams on our city centre streets quite often in the past few weeks. We have also spotted all of you out there taking photos of the trams. So please share some of your photos with us here on our Edinburgh Trams storyboard.

You can upload photos or video [here](#).



