

The Festival Team

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Booking information

Most of our events are open to the public. Suitability, admission and booking information are indicated in the listings. Ticketing links for events can be found via the festival website. to cut down on paper wastage, an electronic copy of tickets is preferred Please bring a printed copy of your ticket along to the event. Concession rates apply to those aged 16 and under, over 65s, students, the unemployed, disabled persons and their personal assistants unless otherwise stated. Proof of status may be required.

The Festival Board

Bill Connor (Chair), Claire Burgoyne, Tony Byrne, Liz Conlon, Alan Fitzsimmons, Judith Harvey, Frances Morton, Jonathan Wallace, Victoria Simms, Sarah Gunn-Smith, Donna Rogers

Disabled Access

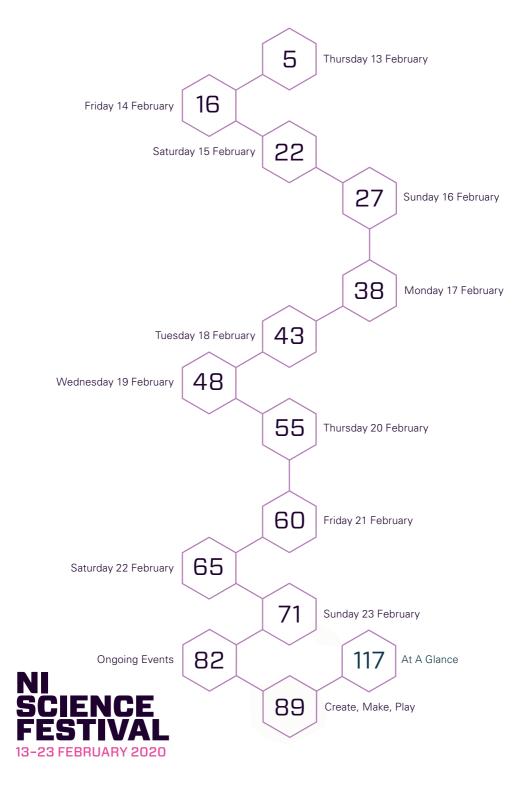
All partnering venues aim to be as accessible as possible however a small number have restricted access. Should you or your group require information or assistance please contact info@ nisciencefestival.com.

Programme Changes

Please note that all events are subject to change. Be sure to check our website or social media forums for the most up to date information.



11 DAYS. 200+ EVENTS. INFINITE IDEAS. NISCIENCEFESTIVAL.COM



























Our Partners



















































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Director's Foreword

Welcome to the programme for the sixth annual NI Science Festival. Thanks to the continued support of our principle funders and partners, and we are proud to once again feature an ambitious mix of the world's greatest scientists, engineers, TV presenters, communicators, authors and innovators. Along with our programme of international speakers, we will also shine a light on the beauty and brilliance on our doorsteps. From the world leading research at our universities to championing local innovators, we have a range of events designed to connect you with the local research and inventions that have a global impact.

NISCIENCE FESTIVAL 2020 | NISCIENCEFESTIVAL COM

This year, we will be focusing more than ever on the climate crisis through a blend of science, exploration, education and storytelling. Achieving a planet in balance, one that provides for humanity and the untold millions of other species with which we live, will be the greatest challenge of our century and we believe the Science Festival must play a role by championing sustainability and appreciation of our natural world. Alongside our range of talks and workshops, we are proud to present our first Sustainability Fair aimed at demonstrating a variety of practical ways that you can make a real difference for the planet. We are also proud to present a range of events aimed at fostering an appreciation of our natural world. From foraging on beaches to stargazing on mountains, join us for a range of events highlighting our natural open spaces and beautiful places.

Finally, we have greatly expanded our events for all the family with more shows than ever before to entertain the kids over the half term. Alongside our series of performances and spectacular stage shows, our new 'Create, Make, Play' section features a range of hands on workshops from a range of partners aimed at those with busy hands and curious minds.

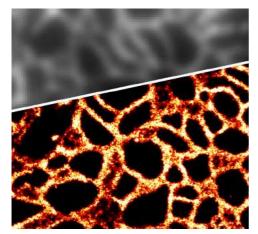
Join us from 13th to 23rd February to celebrate the science of you, the universe and everything in between!

Chris McCreery, Festival Director

The Nerve Centre is absolutely delighted to see our partnership the NI Science Festival continue to grow in 2020 with an even bigger programme of top-quality events in the North West. We can't wait to welcome the hugely popular Maddie Moate back to Strabane following her sell-out success last year; or to hear Jessica Hepburn bringing us her personal journey around the science of fertility; to host a whole team of schoolgirl science popularisers descending on a tour of Derry from Badminton School in England; to learn from Dr David Coyle exploring the science of eating disorders; and to laugh at a special science themed comedy night. New venues will see a food-themed strand running across local cafe's and restaurants, the Little Scientists taking over Dungiven and it will all culminate in a huge family finale at the Playtrail.

It's a privilege to bring so many great events the North West for families, for schools and for anyone who's interested in having fun while learning something new, so come and join us this February!

John Peto, Director of Education, Nerve Centre





ENGINEERING & ROBOTICS

Andor Technology Factory Tour

Thu 13 & Tue 18 February	TIME(S) 10:00	- 11:00am
^{ENUE} Andor Technology, 7 Millennium Way, 3T12 7AL, Belfast		suitability 14 Yrs+
армізsіон & воркінд Free. Book via nisciencefestival.c	om	

Hailing from QUB, Andor technology specialises in the development and manufacture of high performance scientific digital cameras, spectrographs and microscopic systems for academic and industrial applications. This event consisting of a short presentation followed by a factory tour, will present a snapshot of applications of these devices used by physicists, life scientists and nano-technologists all around the world.

ENGINEERING & ROBOTICS

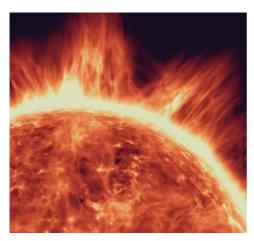
Discovery Day at the ISRC

Thu 13 February	4:00 -	- 8:00pm
VENUE Ulster University, Magee Campu Intelligent Systems Research Ce (ISRC) Northland Rd, Londonder BT48 7JL	ntre	suitability All Ages
ADMISSION & BOOKING Free, Drop in.		

The Intelligent Systems Research Centre (ISRC) is a world class centre of research and innovation. During Discovery Day, you can:

- Visit our SCAN iHub experience walking, driving or flying whilst your brainwaves are recorded in advanced simulators and virtual walking technology
- Communicate and control games using brainwaves alone
- Explore a voyage of discovery into the exciting world of virtual reality
- Visit the cognitive robotics lab and Centre for Engineering & Renewable Energies (CERE)
- See Airbrio, a new device to help asthma
 suffers comply with prescribed medication

Ulster Universit



MATHS AND PHYSICS

15 Million Degrees: John Bell Lecture with Prof Lucie Green

DATE Thu 13 February	TIME(S) 5:30 – 6:30pm	
VENUE School of Mathematics and Physics, Queen's University Belfast, Belfast, BT7 1NN		SUITABILITY 14 Yrs +
ADMISSION & BOOKING Free. Book via nisciencefestival.com		

110 times wider than Earth; 15 million degrees at its core: come and meet the star of our solar system. What is going on in there? What are light and heat? How does the Sun produce them and how on earth did scientists discover this? Join Professor Lucie Green for an enlightening evening where you'll travel millions of miles from inside the Sun to its surface and to Earth, where the light at the end of its journey is allowing you to read right now!

IOP Institute of Physics In Ireland





MIND & BODY

The Science of Attraction

Thu 13 February	TIME(S) 6:00 -	- 7:00pm
VENUE Lush Belfast, 27-29 Castle Lane, Belfast, BT1 5DB		SUITABILITY 18+
ADMISSION & BOOKING £3. Book via nisciencefestival.com		

Join us for a pre-valentines treat and uncover the tantalising secrets of scents and the vital role they play in the science of attraction. Discover the luxury of essential oils in some of Lush's most romantic perfumes inspired by real-life stories of love and lust. Get up close and personal and uncover the stories behind the ingredients that will make you fall head over heels in love.

LUSH FRESH





The Future of Space in Society

Thu 13 February	TIME(S) 6:00 -	- 7:00pm
VENUE Crescent Arts Centre, 2-4 University Rd, Belfast, BT7 1NH		suitability 16 Yrs+
ADMISSION & BOOKING Free Book via nisciencefestival com		

For fifty years, space exploration has been limited to national or international space agencies and has focused on exploration to benefit humankind. In the future, the space sector will see increased involvement from private sector organisations and nations with limited space heritage. While this will increase access to space and its benefits, it may present challenges. Join our panel of OU experts who will discuss the advantages and disadvantages of space to society and the challenges that lie ahead regarding the laws that govern the use of space.

The Gendered Brain with Gina Rippon

DATE Thu 13 February	TIME(S) 7:00 – 8:00pm	
venue Life Centre, 11a Bruce St, Belfast BT2 7JD		SUITABILITY 14 Yrs+
ADMISSION & BOOKING £6. Booking via nisciencefestival.	com	

Join Gina Rippon as she explores how, rather than a fixed biological blueprint sexing the brain, a gendered world produces a gendered brain. In her new book The Gendered Brain, she challenges the idea that there male and female brains, and offers a 21st century model for better understanding of how brains get to be different.







Keeping Your Head in The Trouble the Game

Sport Psychology of Football

Thu 13 February	TIME(S) 7:00 -	- 9:00pm
venue Ulster University, Belfast Campus, York St, Belfast BT15 1ED		SUITABILITY 16 Yrs +
ADMISSION & BOOKINS Free. Book via nisciencefestival.com		

Join Jim Magilton, former NI footballer and manager, in a Q&A session on the importance of psychology in supporting the NI Elite Youth Academy. Sport psychologists Dr Jamie Barker (Loughborough University, author of "The Psychology of Soccer"), Dr Ciaran Kearney (Gaelic Athletic Association, author of "Pure Sport"), Dr Gavin Breslin (Ulster University, author of "Mental Health and Well-being Interventions in Sport") will explore the latest research and techniques within applied sport psychology, helping us to understand how our thinking impacts performance and player well-being on and off the pitch.





with Lichens

	Thu 13 February	7:00 -	- 8:00pm	
	VENUE Ulster Museum, Botanic Ct, Belfast BT9 5AB		SUITABILITY 18+	
адміssion & водкімб £2. Booking via nisciencefestival.com				

The trouble with lichens is that most people barely know they exist, yet they colour many aspects of our world. Literally. From adding splashes of colour and a sense of age to ancient trees and tombstones; they are also homes or food for many animals and they tell us much about the state of the environment. Come along to have your eyes opened to the amazing world of lichens around vou.

MNN MUSFUMS NI





The Science of Sports Performance: A Journey South Live on Stage

DATE Thu 13 February	тіме(s) 7:00 –	- 8:00pm
W5, The Odyssey, 2 Queens Qu Belfast BT3 9QQ		
армізsіом & воокімі Free. Book via nisciencefestival.c	om	

Have you ever wondered what goes in to preparing elite athletes for competition? With the help of the Belfast Giants professional Ice Hockey Team, this interactive session will illustrate the application of sport science in elite sport. Test yourself against the Belfast Giants athletes to see what it takes to compete at their level. The Giants will also share with us their insights about their journey to compete in professional sport and the importance of looking after your mental and physical health.



Chris Watson:

Thu 13 February	7:30 -	- 8:30pm
	onic Arts Research Centre, Queen's niversity, Cloreen Park, Belfast BT9	
ADMISSION & BOOKING £5. Booking via nisciencefestival.com		

Experience a sound journey to the Antarctic and the South Pole, with sound recordist and musician Chris Watson. This audio-visual tour includes recordings made during the BBC series Frozen Planet - the sounds of glaciers calving, Adelie penguins, orcas hunting, and Weddell seals singing under the sea ice - and concludes at the South Pole, at the location of Captain Robert Falcon Scott's ill-fated journey in 1912. The sound journey is accompanied by narration from Chris and images to illustrate the locations.

This event is part of Antarctica Insight, a UK wide cultural programme marking the 200th anniversary of the discovery of Antarctica.









FOOD FOR THOUGHT

Taste

Thu 13 February	8:00 – 9:30pm	
Direct Wine Shipments, 5-7 Corporation Square Belfast BT1	SUITABILITY 18+ 3AJ	
ADMISSION & BODKING £20. Book via nisciencefestival.com		

Join us as Direct Wine Shipments as we explore 'taste'! Many of us love wine, but are not sure why we like certain styles, grape varieties or flavours. This is the opportunity to learn about the main characteristics that affect how we taste. We'll look at sweetness, acidity, bitterness, sourness, umami and how they affect the wine styles we enjoy. We will of course be tasting wine to test out these theories!

The Science of Beer & Cheese Tour

DATE Fri 14 & Fri 21 February	тіме(s) 11:00a	am – 3:00pm
Northbound Brewery, Campsie Industrial Estate, McLean Rd, Eglinton, Londonderry BT47 3XX		suitability 18+
ADMISSION & BOOKING £18.00. Book via nisciencefestiva	l.com	

Meeting at Northbound Brewery, taste the brews on offer and meet and hear the story of the people producing such wonderful craft brews. Next up, a 30 minute scenic trip to the Sperrin Mountains where we will visit Dart Mountain Cheese and meet the cheesemaker, hear the story of the cheeses inspired by the Sperrin landscape while sampling the range of award winning cheeses.





Exploring Animal Contests

DATE Fri 14 February	TIME(S) 1:00 -	· 1:45pm
VENUE UIster Museum, Botanic Ct, Belfast BT9 5AB		suitability All Ages
ADMISSION & BOOKING Free Book via nisciencefestival c	om	

Animal contests are a fundamental component of animal behaviour. They occur over access to resources and are therefore, major drivers of natural selection. This talk will explain current thinking on animal contest behaviour across a range of species. It will also consider how man-made changes to the environment may be influencing contests in the natural world exemplified through a recent study on the influence of noise on the vocal contests of Robins singing for territorial defence.



MIND & BODY

Belfast's Forgotten Medical History – Walking Tour

DATE	_{Тіме(s)}	
Fri 14 & Fri 21 February	5:30 – 8:00pm	
VENUE		SUITABILITY
Various Venues Across Belfast		18+
ADMISSION & BOOKING £5. Book via nisciencefestival.cor	n	

Starting with an engrossing historical walking tour, discover which diseases and illnesses afflicted those living in Victorian Belfast, what life was like in Belfast's asylums and how doctors coped during the Troubles. At the end of the walking tour, talks will be given in Ulster University's Belfast campus foyer by leading medical historians. Wrap up warm! Tour starts at Belfast City Hall.







SPACE

Cosmic Cuilcagh

_{DATE} Fri 14 February	TIME(S) 7:00 -	10:00pm
VENUE Marble Arch Caves Visitor Centro Marlbank Rd, Enniskillen BT92 1		Families (Children must be 6

Adult £10, Child £7 and Families (2 adults and 2 children) £18. Book via nisciencefestival.com



Due to its location, straddling the border between Counties Fermanagh and Cavan – the remarkable Marble Arch Caves UNESCO Global Geopark and visitor centre has inky dark skies to rival many. Join staff, the Irish Astronomical Association and Sirius Science for an exciting evening involving outdoor stargazing (so wrap up warm), a 3D show and an array of entertaining interactive indoor activities to include a Mighty Meteorite workshop and more. All children must be accompanied by an adult.





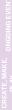
SPACE

Star Tracker Evening

DATE Fri 14 February	8:00p	m (Astronomy Talk) m (Dome show) azing from 7:00pm-Late	
VENUE Armagh Observatory and Planetarium		suitability 10 Yrs+	
ADMISSION & BOOKING Various prices. Book via www.armagh.space/visit 028 37523689			

Join Armagh Observatory and Planetarium for an evening of Star Tracking. Enjoy a Digital Theatre show chosen by our Director Prof. Michael Burton and weather permitting be fascinated by the views of the Night Sky through our 12-inch telescope. We will also have an astronomy talk at 7pm and full dome show at 8pm.







MIND & BODY

The Curious History of Sex with Dr Kate Lister

DATE Fri 14 February	TIME(S) 8:00 -	- 9:00pm
VENUE Black Box, 18-22 Hill St, Belfast, 2LA	BT1	suitability 18+
арміssion & воокімс £8. Booking via nisciencefestival.	com	

Based on the popular research project Whores of Yore, and written with her distinctive humour and wit, A Curious History of Sex draws upon Dr Kate Lister's extensive knowledge of sex history. From medieval impotence tests to twentiethcentury testicle thefts, from the erotic frescoes of Pompeii, to the modern-day sex doll brothel. Kate unashamedly roots around in the pants of history, debunking myths, challenging stereotypes and generally getting her hands dirty. Join Kate for an alternative Valentines night in with a good book. You will laugh, you will wince and you will wonder just how much has actually changed.



Ideas and **Imaginations:** The Creative Writing of Science

	Saturday 15, Wednesday 19 February	(15th)	– 12.30 4:00 – m (19th)
	VENUE Seamus Heaney HomePlace, Bellaghy (15th) QUB Graduate School (19th)		SUITABILITY 14 Yrs +
admission & воокіng £5. Book via nisciencefestival.com			

Join us and learn about a 'novel' approach to scientific writing. Creative scientific writing not only allows for writers to introduce new ideas to their work, it also facilitates greater accessibility to wider audience. Focusing on poetry, this workshop will help develop your awareness of the links between science and creative writing, encouraging attendees to begin developing their own writing projects.





The Sound of Space

DATE Sat 15 February	TIME(S) 10.30am (Polish version) and 12noon (English version)
VENUE Armagh Observatory and Planeta College Hill, Armagh BT61 9DB	suitability arium, 10+
ADMISSION & BOOKING ???	

Although in science-fiction films space is full of sounds such as explosions, rocket engines, etc., in reality it is absolutely silent. The scientists have yet found ways to "eavesdrop" stars, planets and their moons. Listen to Tomasz Rozek speaking about the sound of space.

Chociaż w filmach science-fiction przestrzeń kosmiczna jest pełna dźwięków, takich jak wybuchy, odgłosy silników rakietowych itp. W rzeczywistości w kosmosie nie słychać żadnych dźwięków. Naukowcy znaleźli jednak sposoby na "podsłuchiwanie" gwiazd, planet i ich księżyców. Posłuchaj, jak Tomasz Rożek mówi o dźwięku kosmosu.

This event is part of an international collaboration between the NI Science Festival and the Silesian Science Festival in Katowice, Poland. Supported by British Council NI, this partnership will see the best local speakers from Poland and Northern Ireland appear at each respective Festival

BRITISH COUNCIL
 Northern Ireland

MATHS & PHYSICS

Agriculture in Space

DATE Sat 15 February	Version	m (Polish on) and om (English on)
Northern Ireland Cancer Centre, Belfast City Hospital, 10 Jubilee Belfast BT9 7JL	Rd,	SUITABILITY 10+
ADMISSION & BOOKING ???		

If we want to live on Earth's Moon or on Mars, if we want to build a permanent science base there, we have to learn how to grow food in these unwelcoming environments. Can we do that now? What is the biggest challenge there? Listen to Tomasz Rozek speaking about agriculture in space!

Jeśli chcemy żyć na Księżycu naszej planety lub na Marsie, jeśli chcemy zbudować tam stałą bazę naukową to musimy nauczyć się, jak produkować żywność w tych niegościnnych środowiskach. Czy możemy to robić już teraz? Jakie jest największe wyzwanie, jakie w tym zakresie stoi przed naukowcami? Posłuchaj, jak Tomasz Rożek mówi o rolnictwie w kosmosie!

This event is part of an international collaboration between the NI Science Festival and the Silesian Science Festival in Katowice, Poland. Supported by British Council NI, this partnership will see the best local speakers from Poland and Northern Ireland appear at each respective Festival.

BRITISH COUNCIL





Extinction: Focus on Elephants

Sat 15 & Sat 22 February	9:15am – 2:15pm	
VENUE Belfast Zoo, Antrim Rd, Belfast, Newtownabbey BT36 7PN	st, SUITABILITY st, 15 Yrs +	
ADMISSION & BODKING £25 (includes £20 goody bag). Book via belfastzoo.co.uk or call 028 90776277		

Extinction is here, it's real and it's forever! Numerous wildlife species are seeing the real possibility of extinction in the not too distant future. Many of Belfast Zoo's species are highly endangered, but this year they are focusing on elephants.

In this interactive workshop we will be:

- exploring the threats and dangers facing elephants.
- looking at wild elephant projects in Africa and Asia.
- seeing what zoos all over the world, including Belfast Zoo, are doing to conserve elephants.
- behind the scenes, looking at elephants' husbandry, veterinary and welfare needs.

THE ZOO

The Science **Behind The Farm**

Sat 15 February		am, 12:30pm :00pm ns)
Jubilee Farm, 50 Glenburn road, Glynn, Larne, BT40 3JY		suitability 10 Yrs +
ADMISSION & BOOKING £5. Booking via nisciencefestival.	com	† á Ťá

Join Jubilee scientist's Dr Ethel White and Dr Jonny Hanson for an interactive tour of Jubilee Farm, Northern Ireland's first community-owned farm, and discover the science behind the farm. From camera-trapping wildlife to breeding the perfect pig, and from composting to growing vegetables, find out how Jubilee put ecology, agricultural ecology and human ecology into practice. Outdoor clothing and wellies essential.





Dynamic Dye Tracing Experiment at the Marble Arch Caves

Sat 15 February	10:00am – 12:00pm & 1:00 – 3:00pm	
VENUE Marble Arch Caves Visitor Centre, 43 Marlbank Rd, Enniskillen BT92 1EW		SUITABILITY Strictly 12+
ADMISSION & BODKING £5. Book via nisciencefestival.com		

Dye tracing is a method used by hydrogeologists to trace the flow of underground streams and rivers. Join the Geological Survey of Northern Ireland and our Caves Team to watch the Owenbrean River turn an astonishing, luminous shade of green! Hear all about the hydrology of the Counties surrounding the Marble Arches and learn about the importance of dye tracing in the field of Geology and the various pieces of equipment used to carry out these exciting experiments.





X-Ray Vision: The **Physics Behind** a Radiotherapy Patient's Treatment

DATE Sat 15 February		pm, 2:00pm 0pm (90 min
VENUE Northern Ireland Cancer Centre, Belfast City Hospital, 10 Jubilee Belfast BT9 7JL	Rd,	SUITABILITY 18+
ADMISSION & BOOKING £3. Book via nisciencefestival.com	n	

Despite cancer diagnosis's now being likely for 1 in 2 people in their lifetime, survival rates are improving. Radiotherapy is the most costeffective treatment for cancer and the technology underpinning it has developed rapidly in the past 30 years. Come along to see behind the scenes at the Northern Ireland Cancer Centre in Belfast – learn about the role of the Radiotherapy Physics team, the advanced technology and the treatment techniques they develop. Proceeds from ticket sales go to Friends of the Cancer Centre. Supported by Friends of Cancer Research Centre, HSC.







SCIENCE COMMUNICATION

Cancer Research Open Day

Free. Book via nisciencefestival.com

 DATE Sat 15 February		– 11:30am & – 1:30pm
 VENUE The Patrick G Johnston Centre for Cancer Research, Medical Biology Centre, 97 Lisburn Road, Belfast BT9 7AE	gy	suitability All Ages

The Patrick G Johnston Centre for Cancer Research, QUB, welcomes you! This exciting and informative open day during will give you the opportunity to tour the cancer research laboratories, chat to researchers about their ground-breaking work and learn more about the causes, treatments and prevention of cancer. There will also be the opportunity to participate in a range of hands-on interactive activities suitable for the whole family. Local charities and funding bodies will be present to provide lots of useful information.



ADMISSION & BOOKING

NATURAL WORLD

Ocean Currents and Climate at Exploris

Sat 15, Sun 16, Sat 22 & Sun 23 February	10:00-5:00pm	
VENUE Exploris Aquarium, The Rope Walk, Castle St, Portaferry BT22 1NZ		SUITABILITY All Ages
ADMISSION & BOOKING Free with admission to Exploris		

Solution to Pollution

Revisiting a favourite from last year's science festival we will be wowing our visitors with an alternative water bottle made out of seaweed! Find out how innovative companies are looking to tackle our plastic waste problem through the use of alternatives materials

Ocean currents

Learn how our currents dictate our climate and why are our winters so mild compared to New York. Learn about the importance of ocean currents by combining hands on experiments with informative staff to help you understand ocean pathways. Learn how animals 'hitchhike' in ocean currents, and what can happen if something goes wrong.



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MATHS & PHYSICS

SK299 Human biology

Science on Screen

DATE Sat 15 February	TIME(S) 10:00	am – 2:00pm
VENUE St George's Market, East Bridge St, Belfast BT1 3NQ		SUITABILITY 6 Yrs+
admission & воокіng Free. Drop in.		

Drop by and try out some of The Open University's virtual resources at their pop-up display created for this year's NI Science Festival! You will get a realistic insight into the structure of the heart using the Augmented Reality heart, learn more about what's in our oceans using our Oceans Explorer app or you can simply challenge yourself to some mathematical puzzles using the Perplex maths puzzle app.



FOOD FOR THOUGHT

East Coast Forage Walk

	Sat 15 February	TIME(S) 10:00 12:30	
	VENUE Cockle Row Cottage, Groomsport Harbour, Bangor, BT19 6JR		SUITABILITY 16 Yrs +
ADMISSION & BOOKING £8. Book via nisciencefestival.com			

Join Dermot Hughes of Forage Ireland and learn what nature has to offer at this time of year by foraging along the seashore for wild food. As this is an outdoors session please make sure to dress for the weather and expect muddy feet. Meeting point in front of Cockle Row Cottage at 10am sharp. Cockle Row Cottages will be open to the public on the day.







Archaeology Weekend at Navan Fort

Sat 15 February & Sun 16 February 11:00am – 12:00pm (Lecture) | 11:00am - 3:00pm (Drop in workshops & demos)

Navan Centre and Fort, 81 Killylea Rd, Armagh BT60 4LD All Ages

ADMISSION & BOOKING
£2. (Lecture) Workshops & Demos free
Booking via nisciencefestival.com



Uncover the past (and present archaeological techniques) with QUB's Archaeology Department and the Navan Centre. On Saturday 15th learn about excavations from the Late Bronze Age at Haughey's Fort with Prof Jim Mallory and take part in workshops focusing on objects found there and the various scientific techniques used to analyse them. On Sunday 16 February, Dr Paddy Gleeson will be talking about his new survey work in the Navan landscape, while workshops will focus on modern archaeological recording techniques from geophysical and topographical surveys to drones! With exciting activities and insightful lectures, this is the archaeology event you don't want to miss!



MATHS & PHYSICS

Operation Whippersnapper

Sat 15 February

10.30am, 1:00pm & 2:45pm

VENUE

Crumlin Road Gaol, 53-55 Crumlin Rd, Belfast, BT14 6ST

8 Yrs + with Parent/ Guardian

ADMISSION & BOOKING

£8. Book via nisciencefestival.com



Calling all spy kids! We have a mission for you. Infamous villainess, Cruella DeValera, is behind bars, but there's a rumour she is planning an escape! Is there someone on the inside involved in this dastardly plot? The Governor is sending in two spies; a prisoner who will have to befriend Cruella's gang and a prison officer, who will relay the discovered information back to the Governor. Join Scientific Sue for this workshop to find out how secret agents done daring disguises and go undercover to collect, encode, relay and then decode secret information. Note: Fingerprint ink stains your fingers!





ENGINEERING & ROBOTICS

Maritime Mile – Giant Explorers Trail

Sat 15 February	TIME(S) 10:30 12:30	
VENUE Meeting at Titanic Sign, next to Titanic Belfast		suitability 6 – 14 Yrs
ADMISSION & BOOKING £6. Book via info@titanic-foundation.org 02890730490		

Discover the Belfast's industrial giants and use your treasure map to spot the clues to find out how these "giants" have played a huge role in the history of Belfast's Maritime Mile. With epic tales at the Great Light, a trip on the "Wee Tram" (all accompanied by a guide and volunteers) and plenty of prizes to be won, there's lots to see and do on this fun, family day out.



NATURAL WORLD

Climate: Time to Change

DATE Sat 15 February	10:30 12:30 each)	am & pm (90 mins
School of Biological Sciences Building, 19 Chlorine Gardens, Belfast, BT9 5DL		SUITABILITY 14 Yrs +
ADMISSION & BOOKING Free. Book via nisciencefestival.com		

Climate change is a defining issue of our time. Planet Earth is in trouble, and our biodiversity, our food supply, and our health are under threat. However, it's not too late: if we work together, we can make a change. Come and meet scientists from QUB School of Biological Sciences to explore the impacts of climate change and learn how we can build a more sustainable world. How many species have already gone? Are insects the food of the future? Are we developing new diseases? Explore our research through talks and interactive exhibits, and see how you can join us in this fight. Your planet needs you! Find out more at http://go.qub.ac.uk/ClimateTimeToChange









SCIENCE COMMUNICATION

Maddie Moate Live

DATE Sat 15, Sun 16 & Mon 17	TIME(S)W 12:00 3:00p	pm &
VENUE The MAC, Belfast (15 & 16) & Al Theatre, Strabane (17)		
ADMISSION & BOOKING £10/£8 concession. Rook via pisciancefestival com		ijij

Maddie Moate returns to the NI Science Festival with a brand new show! Bring your little scientists along on a curious journey for all the family to enjoy!

Maddie is a YouTube filmmaker and BAFTA winning presenter, passionate about curiosity. She is the host of the BAFTA nominated CBeebies series "Do You Know?". BBC Earth's "Earth Unplugged" and CNBC's technology series "The Cloud Challenge". One of the only family focused "Edu-tubers" in the UK, Maddie has been creating educational online science content for the past 7 years and has amassed over 25 million views on her YouTube films across multiple science and technology channels.

Periods, Pee and Pregnancy

	DATE Sat 15 February	TIME(S) 11:00a 12:00	
	VENUE The Green Room, Black Box, 18-22 Hill St, Belfast BT1 2LA		suitability 16 Yrs+
ADMISSION & BOOKING £2 with proceeds going to the Homeless Belfast. Book via nisciencefestival.com		s Period	

Should we just put on a pad and put up with what we've got? Do women in France really get better post-natal care? How the hell do you actually engage your pelvic floor? We'll look at how taboos and stigma around women's bodies has impacted societal views, our own views and how we look after ourselves. Join social historian Dr Kate Lister, Katrina McDonnell from the Homeless Period Belfast, a pelvic health professional and chair Liz Nelson to discuss these issues. We'll be collecting donations of wipes, underwear and sanitary items for Homeless Period Belfast if you'd like to donate.





Secret World of Trees with the Woodland Trust

Sat 15 February & Sun 16 February		am, pm, 1:00pm 0pm (45
venue Botanic Gardens, Bowling Pavilion, Belfast BT7 1LP		SUITABILITY 6-14 Yrs

£6 per child, £2 per adult or £15 for family of 4 (2x adults/2x children) Book via nisciencefestival.com

On this self-led and interactive trail, we challenge you to spring into action, measure the size of a tree and identify which mini beasts lurk below ground. Along the trail unearth how trees communicate with each other through their own "wood wide web" and learn how planting trees is an effective way to help with climate change! Once your journey is completed, return to the warmth of the Bowling Pavilion for a complimentary hot drink and even more hands on activities.

TOTAL WOTTED

NI SCIENCE FESTIVAL 2020 | NISCIENCEFESTIVAL COM

Winter Tree Trail with Friends of Botanic

Sat 15 & Sun 16 February		TIME(S) 11:00am – 12:30pm	
Botanic Gardens, Belfast (Med front of Palm House)	Botanic Gardens, Belfast (Meet in		
ADMISSION & BOOKING £3. Book via nisciencefestival.com			

A guided walk around the 500+ trees in the Botanic Gardens, learn to recognise them without the visual clues of summer. Starting with the conifers – the sequoias, the pines, the recently discovered Wollemia and many others from around the world. We will collect deciduous trees that can be identified from their winter twigs and bark, and examine these in more detail in the warmth of the Bowling Pavilion where we can make use of lenses and tree identification books.











DATE Sat 15 February	TIME(S) 12:00	– 3:00pm
VENUE Creggan Country Park, 196 Westway, Derry~Londonderry, BT48 9NU		SUITABILITY All Ages
admission & воокіng Free. Drop in.		ů <u>á</u> ů _á

Pull on your wellies and come explore nature on your doorstep. Take part in a wide range of activities including;

- nature trail and bug hunt
- environmental art
- make a cake for birds
- outdoor games

With stalls from Woodland Trust, Northern Ireland Bat Group, Butterfly Conservation Northern Ireland and Derry City and Strabane District Council's Biodiversity and Recycling teams.

This will be a fun and interactive afternoon for all the family!

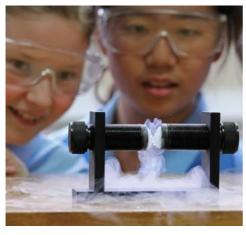
Explore the Outdoors Nick Arnold's Horrible Science Lab -**Part Two**

Sat 15 & Sun 16 Febru		TIME(S) 12:00-1:00pm & 3:00- 4:00pm		
Nerve Centre, Derry~ (15) Black Box, Belfas		SUITABILITY 7 Yrs+		
ADMISSION & BOOKING £6/£3 Book via niscier	ncefestival.con	n tặt à		

Nick Arnold, multi award-winning author of the Horrible Science books, is back with a brandnew show dedicated to all things yucky and fearsomely funny. See the books brought to life in front of your eyes with interactive experiments, quizzes and challenges - there really is nothing like this on the planet (or off it!) Science has never been so squishy!



CREATE, MAKE, ONGOING EVENTS S



SCIENCE COMMUNICATION

Physics in the Freezer

DATE
Sat 15 & Sun 16 February
8 Yrs+

VENUE/TIMES
Foyleside Shopping Centre, Derry~Londonderry (15)
12:00 – 1:00pm (show) 1:00 – 3:00pm (demo)
St. Georges Market, Belfast (16)
11:00am – 2:00pm (Belfast)

ADMISSION & BODKING
Free. Drop in.

To illustrate there's nothing cooler than Physics, girls and staff from Badminton School will be exploring how everyday physical properties can change if you make materials extremely cold with a set of demonstrations based on liquid nitrogen. They'll explore how solids, liquids and gases respond to extremely low temperatures, investigating how resistance changes with temperature and how its absence can enable levitation. Audience participation is a must.







Foyleside Science Showcase

Sat 15 February 12:00 –3:00pm

VENUE Foyleside Shopping Centre, Derry~Londonderry All Ages

Come join us at Foyleside for a fun filled day of science activities. Get up close and personal with various species as Mantella returns to educate us. Learn about the adaptations of each animal, where they live, the threats they face, and why each is so important in our environment. Duff balloons will take us through how they built this years balloon sculpture. Be transformed into a creature of the wild with Anna's cheeky faces.



Free. Drop In.







TECH & DIGITAL

Northern Ireland Raspberry Jam – NISF Special

DATE Sat 15 February	TIME(S) 1:00 – 5:00pm
VENUE TBC. Check nisciencefestival.cor for details.	n 6-18 Yrs
ADMISSION & BOOKING	om tätä

Come one, come all. The Northern Ireland Raspberry Jam is a free, family-friendly and hands-on event held every month to provide a chance for young people (and adults) to make awesome projects using code and electronics. Featuring workshops ranging from unicorn horn hacking, robotics, lasers, music making (with code) and even the odd bit of Minecraft hacking, this event caters to all expertise levels. So what are you waiting for? Let's jam!



ART & SCIENCE

Curtains up! Stage Technology in Action

DATE Sat 15 February	TIME(S) 1:00 -	·2:00pm
VENUE Lyric Theatre, 55 Ridgeway St, Belfast BT9 5FB		SUITABILITY 6 Yrs +
ADMISSION & BOOKING £8. Book via nisciencefestival.co	m	ů , ů

Welcome to the theatre! In this interactive stage technology tour, you will get a unique backstage experience of the NI Opera and Lyric coproduction of the musical Kiss Me, Kate and learn about the nuts and bolts of a theatre production. We will show you how stage lights work, how sets fly and explain why theatre technicians must always wear helmets. See the stage as you have never seen it before, and you never know, you might even spot a singer!







SCIENCE IN SOCIETY

Lab View 360: Biomedical Research Nobel Laureate in Action

Sat 15 February	TIME(S) 2:00 – 5:00pm	
VENUE Wellcome-Wolfson Institute for Experimental Medicine, QUB, 97 Lisburn Rd, Belfast BT9 7BL		SUITABILITY Strictly 12 Yrs+ (for lab safety reasons)
ADMISSION & BOOKING £2. Book via nisciencefestival.com		

Become a scientist for the afternoon at the Wellcome-Wolfson Institute for Experimental Medicine Our mission is to understand the mechanisms of disease and use that understanding to develop new tests and treatments to improve patients lives. Discover the work of local scientists who are leading the fight in three disease areas: eye disease, diabetes/vascular disease, respiratory/infectious disease through a range of demonstrations and interactive laboratory research activities. Once the experiments are finished, you are invited to join us for pizza!

Ernest Walton:

Talk by Professor Vincent McBriertv

DATE Sat 15 February	TIME(S) 2:15 – 3:15pm		
VENUE Old Museum Building, 7 College Square North, Belfast BT1 6AR		SUITABILITY 14 Yrs +	
ADMISSION & BOOKING Free. Book via nisciencefestival.com			

Join Vincent J. McBrierty (MRIA, Emeritus Fellow of Trinity College Dublin & former Professor of Polymer Physics appointed by Ernest Walton, 1967), for a lecture on Ernest Walton, nobel Laureate. Ernest, along with John Cockcroft, became the first people to successfully split the atom in 1932. Accelerator-based nuclear physics has since grown into giant proportions in CERN and throughout the world. He remains Ireland's only Nobel Laureate in Physics.







MIND & BODY

Dear Life: A Doctor's Story of Love and Loss

with Dr Rachel Clarke

f5 Book via nisciencefestival com

DATE Sat 15 February	TIME(S) 4:00-	5:00pm
VENUE Crescent Arts Centre, 2-4 University Rd, Belfast BT7 1NH		SUITABILITY 16 Yrs +
ADMISSION & BOOKING		

As a specialist in palliative medicine, Dr Rachel Clarke chooses to inhabit a place many people would find too tragic to contemplate. Every day she tries to bring care and comfort to those reaching the end of their lives and to help make dying more bearable.

Sunday Times bestselling author of Your Life in My Hands.

MIND & BODY

Death Cafe

DATE Sat 15 February	_{Тіме(s)} 5:30-6:30pm	
VENUE Crescent Arts Centre, 2-4 University Rd, Belfast BT7 1NH		SUITABILITY 16 Yrs +
адмізsіом & воокімв Free. Book via nisciencefestival.com		

At a Death Cafe, people get together to talk about death, over a cup of tea and cake. The purpose is to start those difficult conversations about death, ageing and dying in order to help people get on with making the most of their (finite) lives. A Death Cafe is a group directed discussion of death with no agenda, objectives or themes.

This is not a bereavement support group and may not be appropriate for those who have recently lost a loved one.

FOOD FOR THOUGHT

A Taste of Seitan

Sat 15 February	TIME(S) 6:00 – 7:00pm	
VENUE Hidden City Café, 2 London St, Londonderry BT48 6RQ		SUITABILITY All Ages
ADMISSION & BOOKING £3. Book via nisciencefestival.cor	n	

With the rise of veganism and meat substitutes you would think seitan (pronounced say tan) was a new thing but whilst the word seitan is Japanese and was coined in the 60s by a macrobiotic nutritionist, in actuality the wheat gluten product 'wheat meat' was invented by the Chinese hundreds of years ago. Come along to find out more and watch Justyn McNicholl create some truly delicious Seitan dishes and sample of course.

ART & SCIENCE

Neo Neo #9 **Una Monaghan**

DATE Sat 15 February	TIME(S) 9.30pm – 1.30am	
VENUE Black Box, 18-22 Hill St, Belfast, BT1 2LA		SUITABILITY 18+
адміssion & воокімс £7/£5 concession. Book via niscie	encefes	tival.com

Úna Monaghan, a harper, composer, researcher and sound artist from Belfast. Using a Quadraphonic speaker arrangement, this very special improvised performance combines traditional music, sound art, movement sensors, surrounded by the bronze sculptures of Nóirín Nic Alastair and reacting off Conan McIvor's stunning visual piece "My Hearts a Flutter." Supported by Neo Neo DJ's with additional guests to be announced...



Free. Drop in.

The PPP (Public Litter Picking Event)

DATE Sun 16 & Sun 23 February	тіме(s) 11:00am	
VENUE Benone Beach, Limavady (16) Glen Owen to Griannan Fort (23)		suitability All Ages
ADMICCION C DOCKING		

The PPP, (Public Purification Pickers), is an event created by Derry local, Robert Arbuckle. Robert has been organising these litter picks every Sunday for the last few months which is aimed at tackling the litter problem in Derry/Londonderry and the surrounding areas.

For this NISF special, we have selected two of the most beautiful places in the North West. Come join The PPP to tackle the litter problem on these scenic walks. Litter pickers and bags will be supplied. FOOD FOR THOUGHT

A Guide to Sustainable Coffee

DATE Sun 16 February	TIME(S) 12:00	– 1:00pm
VENUE 9ine Hostages Coffee, Waterloo Street, Derry~Londonderry		SUITABILITY All Ages
ADMISSION & BOOKING £2. Book via nisciencefesival.com	1	

Join the team in 9ine Hostages coffee as they discuss sustainability in coffee. Terms such as fair trade and direct trade can be confusing. We aim to uncover what are the best options for quality, for coffee producers and the environment. We will be sampling a selection of coffees from Bailies Coffee Roasters in Belfast to see how the work being done at origin translates into your cup of coffee.

MIND & BODY

The Pursuit of Motherhood

DATE Sun 16 February	TIME(S) 2:00 – 3:00pm	
VENUE Nerve Centre, 7-8 Magazine St, Derry~Londonderry BT48 6HJ	suitability 18+	<i>(</i>
армізsіом & воокіма £5. Book via nisciencefestival.cor	n	

Jessica Hepburn is one of the UK's leading patient voices on fertility, infertility, the science of making babies and modern families. Having been through eleven rounds of IVF she has become a pioneer in raising awareness of what it means to struggle to create the family you long for and how to live as big and bravely as possible when life doesn't go to plan. Join us to hear Jessica's story followed by a Q&A hosted by Deborah Cross, IVF Campaign NI.





SCIENCE IN SOCIETY

How To Argue with A Racist

with Dr Adam Rutherford

DATE Sun 16 February	TIME(S) 12:00 – 1:00pm	
VENUE Whitla Hall, Queen's University, Belfast BT7 1NN		suitability All Ages
admission & Bookins £8. Book via nisciencefestival.com		

The appeal to science to strengthen racist ideologies is on the rise – and increasingly part of the public discourse on politics, migration, education, sport and intelligence. Stereotypes and myths about race are expressed not just by overt racists, but also by well-intentioned people whose experience and cultural baggage steers them towards views that are not supported by the modern study of human genetics. Even some scientists are uncomfortable expressing opinions deriving from their research where it relates to race. Yet, if understood correctly, science and history can be powerful allies against racism, granting the clearest view of how people actually are, rather than how we judge them to be.

How to With A Racist by Adam Rutherford is a vital manifesto for a twenty-first century understanding of human evolution and variation, and a timely weapon against the misuse of science to justify bigotry.



Re-wiring our Brain

DATE Sun 16 February	TIME(S) 1:00 -	- 2:00pm
VENUE Ulster Museum, Botanic Ct, Belfast BT9 5AB		SUITABILITY 14 Yrs +
ADMISSION & BOOKINS £3. Book via nisciencefestival.com.		

Our brains are plastic and capable of change allowing us to learn new skills and form new memories. This is important to all of us, but particularly as we age or have suffered brain damage. How can we boost this plasticity to rewire our brains? In this interactive demonstration we will see if it's possible to show and measure changes in peoples brains using brain stimulation, exercise and learning a new skill. So join us! And find out how all of us can boost our plasticity for a more healthy and younger brain!





NATURAL WORLD

Alice Roberts - The Incredible Human Journey Updated

DATE Sun 16 February	TIME(S) 2:00 -	- 3:00pm
VENUE Whitla Hall, Queen's University, Belfast BT7 1NN		suitability 11 Yrs +
ADMISSION & BOOKING £14/£12 concession. Book via nisciencefestival.com.		

Ten years on from making her landmark BBC2 series, The Incredible Human Journey, Alice Roberts explores the latest insights into the colonisation of the globe by our ancient forebears. Sometimes racing along coastlines, at other times, coming to a standstill, with any advance blocked by great walls of ice, our ancient ancestors gradually spread right across the globe. Along the way, they adapted to a huge range of different environments, learning to live everywhere - from tropical forests and temperate shorelines to the high Arctic. In the last ten years, the evidence has piled up: new fossils, archaeological sites and astounding insights from genetics have painted a new picture of these ancient journeys, and the challenges overcome by our Stone Age ancestors.



MATHS & PHYSICS

The World According to Physics

with Prof Jim Al-Khalili

DATE Sun 16 February	TIME(S) 4:30 -	- 5:30pm
VENUE Whitla Hall, Queen's University, Belfast BT7 1NN		suitability 14 Yrs +
admission & воокіng £8. Book via nisciencefestival.cor	n	•••••

Shining a light on the most profound insights revealed by modern physics, Professor Jim Al-Khalili invites us all to understand what the science tells us about the universe and the nature of reality itself.

Making even the most enigmatic scientific ideas accessible and captivating, this deeply insightful lecture illuminates why physics matters to everyone and calls one and all to share in the profound adventure of seeking truth in the world around us.

Jim Al-Khalili is professor of physics at the University of Surrey. He is one of Britain's best-known science communicators and host of BBC Radio 4's *The Life Scientific*.

IOP Institute of Physics In Ireland





DANCE, DANCE

TECH & DIGITAL

Kainos Lockdown

DATE Mon 17 & Tue 18 February	On the hour from 1:00 - 5:00pm (17) 10:00am - 4:00pm (18)	
		SUITABILITY 14 – 18 Yrs
ADMISSION & BOOKING Free. Book via nisciencefestival.com.		

The Kainos Defence & Encryption Network, or KAIDEN for short, has been taken offline by an unknown source. You have 30 minutes to crack the codes to get KAIDEN's AI systems back up and running before hackers break through the firewall and cause an entire system meltdown! The stakes are high, and we need your help. Along the way you will need to:

- Explore a world in Virtual Reality
- Apply mental maths
- Decipher codes

No coding experience required - take part in teams of four or five - and we'll share some of the secrets behind the room once you've escaped!

kain⊕s°

The Cosmic **Birthday Dance**

ADMISSION & BOOKING f4. Book via nisciencefestival.com		
VENUE Crescent Arts Centre, Belfast (17) Nerve Centre, Derry~Londonderry (19)		SUITABILITY 5 – 8 Yrs
Mon 17 & Wed 19 February	10:00 (17) 2 3:00p	

Every minute of the day, our planet is gliding smoothly along its celestial path through sparkly Outer Space. Stars, comets and galaxies appear to fly past on our annual cosmic journey around the Sun. Come along and explore this journey. You will find out what is happening out there in Space and relive what has been going on since the day you were born. Happy dancing is welcomed. Come along and explore this journey with Dr Liz Conlon.





Intelligent Systems @ Foyleside

DATE Mon 17 February	TIME(S) 12:00	– 4:00pm
VENUE Foyleside Shopping Centre, 19 Orchard St, Derry~Londonderry BT48 6XY		SUITABILITY All Ages
ADMISSION & BOOKING Free. Public drop-in for ongoing demonstrations.		

The Intelligent Systems Research Centre is a world class centre of research and innovation at Ulster University Magee Campus. Join us for demonstrations of some exciting research which is impacting people, society and the economy locally and globally. See our fleet of robots in action, communicate and control games using brainwaves alone, enjoy a voyage of discovery into the exciting world of virtual reality and see 'Airbrio', a new device to help asthma suffers comply with their prescribed medication.





MATHS & PHYSICS

Maths Madness

DATE Mon 17 & Tue 18 February	^{тіме(s)} 2:00 – 3:00pm
VENUE Crescent Arts Centre, Belfast (17 Nerve Centre, Derry~Londonderr	
ADMISSION & BOOKING £4. Book via nisciencefestival.cor	n iji

Get ready for an hour of mind-bending maths and lots of audience participation as award-winning musical maths comedian, Kyle D Evans, puts a twist on the t-shirts of Hanoi, explains how to win the world paper-folding championships and attempts to fit all of the UK's rice stocks onto a single chess board (this part usually fails, but he gives it a good go!). Whether you're a mathsphile or mathsphobe, this show brings joyous numberplay to the whole family and there's even a Fibonacci-based folk song.







Explore -**Dome Show Launch**

Mon 17 February	TIME(S) 2:00 -	- 2:30pm
VENUE Armagh Observatory and Planetarium, College Hill, Armagh BT61 9DB		SUITABILITY 10 Yrs+
ADMISSION & BOOKING Various prices. Book via www.armagh.space/visit or		

Explore is the story of humanity's fascination with the stars - from ancient stargazers and astrologers to the breakthrough discoveries of

Nicolaus Copernicus and Johannes Kepler. In particular, today's explorers depend on Kepler's

genius for their work in space.

The story centres on the motive of human travel to Mars, and presents and explains a broad selection of related scientific topics, including the history of astronomy, the geocentric and heliocentric models, Kepler's laws of planetary motion, and orbital manoeuvres.



028 37523689

Glimpse into the **Armagh Observatory**

Mon 17 February	TIME(S) 1:00pm (Dome show) 2:00 – 3:00pm (Tour of Observatory)	
VENUE Armagh Observatory and Planetarium, College Hill, Armagh BT61 9DB		suitability 14 Yrs +
арміssion & воокіміs £15. Book via www.armagh.space/visit 028 375/23689		

Have you ever wanted to peek inside our Observatory Building and learn more about the history and heritage of our site? Begin with a Dome Show, then enjoy an inspiring tour of our Observatory. Highlights include a behind the scenes access to the historic Armagh telescopes, including the 1795 Troughton and 1885 Grubb equatorial telescopes, as well as learning about the current science conducted at the Observatory.





SCIENCE COMMUNICATION

Ask Us Anything!

Mon 17 February	6:00-7:00pm	
venue Ulster University, Belfast Campus		SUITABILITY 6 Yrs +
ADMISSION & BOOKING Free. Book via nisciencefestival.com		

Why do people get scared? Is Mars poisonous? What does E=mc^2 mean? Will time travel ever happen? Last year our panel of experts answered these questions and many more. What will you ask this year? Professor Colin Turner and Dr Victoria Simms will lead a panel of Ulster University's experts on all things STEM. Send us your burning questions before the event to c.turner@ulster.ac.uk or just bring them along on the day and we will try and answer as many of them as we can.



ENGINEERING & ROBOTICS

Aerodynamics – the F1 winner

Mon 17 February	6:30 –	· 7:30pm
VENUE Conor Lecture Theatre, Ulster University, 25-51 York Street, Belfast,BT15 1ED		SUITABILITY 10 Yrs+
ADMISSION & BOOKING Free. Book via nisciencefestival.c	om	

Formula 1 racing represents the pinnacle of engineering excellence. In 2020, Formula 1 teams will compete in 22 events across 5 continents all driven by the ultimate goal of being crowned world champions. In the quest for the most elusive performance differentiators, Aerodynamic science represents one of the fiercest battlegrounds. This talk will delve into the importance of Aerodynamics and the influential roles played by state-of the-art experimental and computational technologies in producing world-beating racing cars.

Institution of MECHANICAL ENGINEERS





Meeting The Challenges of an **Ageing Society**

Mon 17 February	TIME(S) 6:30pm – 7:30pm	
VENUE Life Centre, 11a Bru St, Belfast BT2 7JD		suitability 18+
ADMISSION & BOOKING Free Rook via nisciencefestival com		

The UK population is ageing, as it is across the industrialised world. Ageing populations will create new demands for technologies, products and services, including new care technologies, new housing models and innovative savings products for retirement. Join our panel of experts from business and academia to discover local examples of research and innovations designed to ensure a healthy, independent and older age for all

This event is part of our Innovate UK Grand Challenges series which focuses on the global trends which will transform our futures.





Mensa Magnificent **Monday Quiz**

Mon 17 February	7:30 -	- 10:00pm
VENUE Black Box, 18-22 Hill St, Belfast BT	1 2LA	suitability 18+
ADMISSION & BOOKING £2. No booking necessary.		

Make the most of your Monday! Drop in to The Black Box for a light-hearted team guiz devised by Mensa. No football, no soaps - just science, technology, engineering and a bit of general knowledge. Even if your quizzing is less than impressive, grab a few friends and come on down for the craic! You might even win a prize. Teams of up to six people welcome.









NATURAL WORLD

Lost Landscapes and Climate Change

Mon 17 February	TIME(S) 7:30 -	- 8:30pm
venue Ulster Museum, Botanic Ct, Belfast BT9 5AB		SUITABILITY 16+
ADMISSION & BODKING Free. Book via nisciencefestival.com		

What did the world look like millions of years ago? Was it swathed in forest, or did savannah grasslands stretch from pole to pole? What did it smell like? How hot was it? Could life survive there? What can past landscapes and climates, and the life that inhabited them, tell us about our future? Join Jennifer Mc Elwain, from Trinity College Dublin, on a journey through 400 million years of Earth's landscape and climate history, and on an expedition to Greenland to collect some of the fossil plants that provide key evidence for these changes.

SCIENCE COMMUNICATION

Angst and Adolescence

The Science of Teenagers

Mon 17 & Wed 19 February	TIME(S) 7:00 -	- 8:00pm	
VENUE Nerve Centre, Derry~Londonderry (17) Crescent Arts Centre, Belfast (19)		SUITABILITY 13 Yrs+	
ADMISSION & BOOKING £3. Book via nisciencefestival.cor	n		

Adolescence can be a tough time to live through for teenagers – and for parents! But help is at hand in this fun event as Dr Declan McKenna explains the science behind teenage behaviour. Using familiar examples from the eternal struggle between parents and teenage children to set the scene, he explains how biological changes in the teenage brain and body impact upon mood, sleep and emotions in ways that are not always easily controlled. Parents and teenagers are encouraged to attend together as it promises to be both a wonderful and totally embarrassing bonding experience!









SCIENCE AND SOCIETY

Beers & Careers

DATE Mon17, Tue 18 & Wed 19 February	_{ТІМЕ(S)} 7:00pm -	- 8:30pm
VENUE Ormeau Baths Gallery, Ormeau Avenue, Belfast, BT7 1AQ		SUITABILITY 18+
ADMISSION & BOOKINS Free. Book via nisciencefestival.com		

Beers & Careers is a series of informal meet-ups for anyone interested in developing careers in a range of STEM focused areas, which we'll be delving into on different nights over craft beer and some nibbles. If you're one of the following:

- Recent graduate in a STEM subject,
- An undergraduate who's looking at the careers market,
- Considering changing from a non-STEM discipline and interested in hearing from excellent companies in a range of sectors
- Or just anyone else who's interested

Then the Beers and Careers events are for you! Each night, we'll have a different focus, with a different blend of companies looking for different skill sets:

- Engineering and life sciences (Monday 17th Feb)
- Creative, digital and web (Tuesday 18th Feb)
- Software development (Wednesday 19th Feb)

Some of the city's top employers will be there to talk very briefly about opportunities, what they're looking for in people, and why these companies are going to be the backbone of the Belfast economy, but in a laid back and fun environment. We'll supply the beer (regular and non alcoholic), coffee, tea and snacks, you bring yourself. Don't worry about shirts and ties, don't worry about CVs, just bring questions.

Harry's Habitat Adventure

Tue 18 February	тіме(s) 10:30am & 1:30pm	
VENUE Ulster Museum, Bo Ct, Belfast BT9 5AE		suitability 3 – 6 Yrs
ADMISSION & BOOKING £3. Book via nisciencefestival.com		

Over the hills and far away... where will Harry end up today? Harry is a mischievous six-year-old boy who loves nothing more than getting mucky and exploring the big, wild world. Follow Harry as he traverses various environments across Northern Ireland where he learns about the flora and fauna of these habitats with the help of some special habitat experts he meets along the way. A perfect introduction to the natural world this show is fantastic way to introduce little ones to the science and importance of environmental conservation



EARTH & ELEMENTS

The Climate Change Challenge

Tue 18 February		– 12:30pm 0 – 3:30pm	
VENUE GSNI Core Store, Belfast BT3 9Li	-		
ADMISSION & BOOKING Free. Book via nisciencefestival.c	om		

Take on the Climate Change Challenge and discover evidence for past climate change in Northern Ireland. We'll be delving deep into our distant past looking at deserts, tropical seas, icy wastelands and much more. Through a series of hands-on experiments exploring micro- and macro-palaeontology, geochemistry, palynology, palaeosols and various different rock types, you can help us to work out exactly how and why our climate has changed so much throughout our vast geological history.



SCIENCE COMMUNICATION

StrongWomen Science

-	Tue 18 February	11:00	am & 2:00pm
	VENUE Crescent Arts Centre, 2-4 Univer Rd, Belfast BT7 1NH	sity	SUITABILITY 7 Yrs + & Parents/ Guardians
	ADMISSION & BOOKING £6. Book via nisciencefestival.com	n (Ž

Ever wanted to know how you balance a chair on your chin, if you can juggle liquid, or how circus performers eat fire? StrongWomen Aoife and Maria reveal the scientific secrets behind their astounding tricks. In a fun, lively and fast-paced family circus performance, find out how jugglers, acrobats and hula hoop artists use science to create their amazing acts.

matrix.



The Plant World Under the Microscope

DATE Tue 18 February	тіме(s) 11:30a	am – 1:00pm
VENUE The Bowling Pavilion, Botanic Gard Belfast BT9 5AB	lens,	SUITABILITY 18+
ADMISSION & BOOKING £5. Book via nisciencefestival.cor	n	

A hands-on workshop examining a range of plants from the Botanic Gardens at a scale normally invisible. We will use simple lenses and stereo binocular microscopes and supplement this with higher magnification light microscope and electron microscope images. No previous experience needed. May be of interest to artists as well as those interested in the natural world







Spilling the tea on the perfect brew

Tue 18 February	TIME(S) 7:00-8	3:30pm
VENUE Green Room at the Black Box, 18-22 Hill St, Belfast BT1 2LA		SUITABILITY 18+
ADMISSION & BODKING £10. Book via £10 nisciencefestival.com		

Ahhh! There's nothing quite like a good cuppa. But did you know that there is a whole science behind making the perfect blend? Join SUKI Tea for a tea tasting session where you will learn how to create your own personalised tea blend under the watchful eyes of our experts and also learn about the history of the company and its founder Oscar Woolley.



ENGINEERING & ROBOTICS

Sir Bernard Crossland Lecture

Switching onto the Energy Transition

DATE Tue 18 February	_{Тіме(s)} 5:30 – 7:00pm	
VENUE Riddel Hall, 185 Stranmillis Rd, Belfast BT9 5EE		suitability 18+
ADMISSION & BOOKING Free. Book via nisciencefestival.com		

Engineers Ireland and the Chief Executives Club at Queen's University are delighted to present Marguerite Sayers (Executive Director of Customer Solutions, ESB & President of Engineers Ireland) as the speaker for the 19th Sir Bernard Crossland Lecture. An electrical engineer by profession, Marguerite currently leads the energy retail company Electric Ireland, and is also responsible for ESB's Telecoms, E-Cars, and Smart Energy Services businesses, which deliver low-carbon products and services to customers in Ireland and the UK. In this lecture, engineering, energy and climate change will be brought to the fore.







SCIENCE IN SOCIETY

The Science Behind Contagion

DATE Tue 18 February	TIME(S) 6:00 -	- 8:30pm
VENUE Queen's Film Theatre, 20 University Square, Belfast BT7 1PA		SUITABILITY 16 Yrs+
ADMISSION & BOOKING £6.95. £5.30 (concession). £4 (Under 16 & Students) Book via nisciencefestival.com		

What if a new, deadly and highly contagious agent began spreading across the world, with no prevention or treatment readily available? How would the population react? How would YOU react? No one is immune to fear, but as a society we can do better in communicating evidence-based information. Join us at Queen's Film Theatre to enjoy the movie Contagion (2011) and discuss these topics with infectious disease experts from QUB – a great chance to bust myths, answer any questions and learn more about infection and immunity!





TECH & DIGITAL

The Future of Mobility

DATE Tue 18 February	тіме(s) 6:30pm – 7:30pm	
VENUE Life Centre, 11a Bru St, Belfast BT2 7JD		ѕитавілту 18+
ADMISSION & BOOKING Free. Book via nisciencefestival.com		

In an attempt to halt climate change, and improve air quality, there is a push towards low carbon vehicles being ubiquitous on our roads, sea and air. In tandem, work is accelerating on fully autonomous vehicles.

We are on the cusp of a profound change in how we move people, goods and services, resulting in a complete upheaval in our mobility, energy and infrastructure systems. Join our panel of experts from business and academia to discuss the current and future plans for how our future transport systems will work.

This event is part of our Innovate UK Grand Challenges series which focuses on the global trends which will transform our futures.





MATHS & PHYSICS

ABC of the Universe

Tue 18 & Wed 19 February	TIME(S) 7:00 -	- 8:00pm
VENUE Accidental Theatre, Belfast (18) & Nerve Centre, Derry – Londonderry (19)		suitability 12 Yrs+
ADMISSION & BOOKING £5 / £3 concession. Book via nisciencefestival.com		

Join Dr Liz Conlon for a life-changing experience of reality. Physics is woven deeply into the fabric of our lives but only a small number of people are privileged to embrace it. You are invited to take part in a physics adventure – using just three particles and four forces, you will discover how physics draws back the veil and peers deeply into nature. You will see that physics delivers, not only mind-blowing advances in technology but a deep connection with nature. In an era of fake news and nonsense, physics is a much-needed beacon of honesty and understanding.



MIND & BODY

Pants on Fire

DATE Tue 18 February	тіме(s) 7:30-9:00pm	
VENUE Crescent Arts Centre, 2-4 University Rd, Belfast BT7 1NH		suitability 16 Yrs+
ADMISSION & BOOKING £8. Book via sciencefestival.com		

Do you think you could spot a liar? Many people believe there are tell-tale signs that show somebody is lying, and some even claim to be human lie-detectors. A suspect's behaviour can determine how they are questioned and influence a juror's verdict. Modern scientific techniques are even being used to spot lies in the brain and have been presented as evidence in court cases. But how good really are these methods at detecting lies? Are we risking the freedom of innocent people? Join Faye Skelton (Edinburgh Napier University) to find out what psychology has to say.





SCIENCE COMMUNICATION

Pitch 200

DATE Wed 19 February	_{Тіме(s)} 5:30 – 7:30pm	
VENUE Black Box, 18-22 Hill St, Belfast BT1 2LA		SUITABILITY 18+
ADMISSION & BOOKING Free. Book via nisciencefestival.com		

Civil engineers make modern life possible. A bold statement you may say, but after this event, we think you'll agree! Pitch 200 is a quickfire event designed to transform your thinking in 200 seconds or less! Civil engineers will compete to give the best demonstration of what they do in just 200 seconds (or less), with talks ranging from transport systems, the creation of spaces for human habitation, energy, water supply and much more! Join in the fun, grab some free grub and learn how civil engineers build our quality of life.



TECH & DIGITAL

What can Big Data do for Northern Ireland?

Wed 19 February	TIME(S) 6:30pm – 7:30pm	
VENUE Life Centre, 11a Bru St, Belfast BT2 7JD		suitability 18+
ADMISSION & BOOKING Free. Book via nisciencefestival.com		

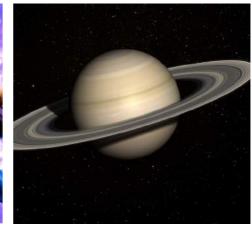
What are the latest developments in data, artificial intelligence and digital technologies in Northern Ireland, and how can we make sure they benefit as many people as possible?

Join our panel of experts from business, science and policy to discover local examples of innovative practice and find out how they can contribute to a thriving and prosperous region.

This event is part of our Innovate UK Grand Challenges series which focuses on the global trends which will transform our futures.







SCIENCE COMMUNICATION

The Science and Engineering of Superheroes

DATE Wed 19 February	TIME(S) 6:00 -	- 7:00pm
venue Belfast Campus, Ulster Universit	st Campus, Ulster University	
ADMISSION & BOOKING Free. Book via nisciencefestival.com.		

In this lecture Colin Turner, Professor of Engineering Education and a National Teaching Fellow will look at how the science and engineering behind our favourite superheroes could work, and where it might fail with messy results. There will be a chance for some audience members to help with experiments.



SPACE

The Planets

Behind the science of the OU-BBC Series

DATE Wed 19 February	TIME(S) 7:00 -	- 8:00pm
VENUE Ulster Museum, Botanic Ct, Belfast BT9 5AB		SUITABILITY 10 Yrs +
ADMISSION & BOOKING Free. Book via nisciencefestival.com		

Dr David Rothery, Professor of Planetary Geosciences at The Open University, author and researcher for the European Space Agency's BepiColombo mission to Mercury, invites you to a behind the scene look at the 2019 BBC TV series 'The Planets'. David was one of two OU academic consultants for series. He will describe what it is that fascinates him personally about planets (and other objects in the Solar System), and delve into some aspects that didn't make it into the TV series, or that came out slightly wrong.







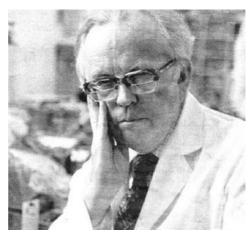


Bogland & Blackherries

Place-names, Ulster's Languages and Landscapes

DATE Wed 19 February	тіме(s) 7:00 -	- 8:30pm
VENUE Seamus Heaney HomePlace, 45 Main St, Bellaghy, Magherafelt BT45 8HT		SUITABILITY 18+
ADMISSION & BOOKING £10. Book via nisciencefestival.com		

Place-names are precious relics of times gone by, telling us not only about how our predecessors saw the world around them, but also preserves the rich language spoken by inhabitants of our native places over time. Bogland and Blackberries will be hosted by the Northern Ireland Place-Name project at the Seamus Heaney Home Place Centre. With guest panellists from Queen's University and local experts, this interactive event will explore and discuss the names of the places that inspired works like Heaney's Bogland, and how treasures of the landscape and its people remain fossilised in the names around us today, much like they do in the written word. Host for the evening: Joe Mahon UTV



Pioneers of Biology

Creating A New Rhythm for Life

DATE Wed 19 February	тіме(s) 7:00 — 8:30pm
venue Ulster University, 25-51 York Stro Belfast, BT15 1ED	eet, 14 Yrs +
ADMISSION & BOOKING £2. Booking via nisciencefestival.	com

What revolutionary device, created in Northern Ireland, can save lives anywhere and everywhere? The portable defibrillator of course. Developed by Professor Frank Pantridge and Professor John Anderson, we'll reveal the history and stories behind the development of this truly (shocking) lifesaving device. Hear from passionate speakers in the exciting fields of biological science and engineering, see the early prototypes and learn how innovation and STEM spark new bio-engineering ideas and products at this Royal Society of Biology event. The inspiring presentations will be followed by a lively networking reception to build future (electrical) connections along with hands-on demonstrations.





The First Stars in the Universe

Wed 19 February	7:30 -	9:00pm
VENUE School of Mathematics and Physics, Queen's University Belfast, Belfast, BT71NN		SUITABILITY 10 Yrs +
ADMISSION & BOOKINS Free. Book via nisciencefestival.com		

Stars, like our Sun, are the building blocks of the universe. Without them life would be impossible. Our universe is thought to have began with the Big Bang, about 13.8 billion years ago. But how and when did the very first stars form? Were they different to newer stars like our Sun? Find out in this talk, by Dr Laura Murphy of TCD. Aimed at ordinary folk with a general interest in science, ask Laura all your burning questions about about the stars. This event is kindly supported by the Irish Astronomical Association

The Secret Life of Mosses and Liverworts

DATE Thu 20 February	TIME(S) 11:30am – 1:00pm	
The Bowling Pavilion, Botanic Gardens, Belfast BT9 5AB	Bowling Pavilion, Botanic	
ADMISSION & BOOKING £5. Booking via nisciencefestival.com		

What are mosses and liverworts? Just a green nuisance on your drive or the thatch that clogs the lawn? Or perhaps they form the undulating carpet in a Japanese garden. Here is a chance to learn more about them, how they grow and how they spread so fast and yet have no seeds. We will use lenses and microscopes to investigate this hidden world. We might even learn to identify a few of them.









VATURAL WORLD

Invasive Alien Species

Predicting the Unpredictable

DATE Thu 20 February	TIME(S) 1:00 to 2:00pm	
VENUE Ulster Museum, Botanic Ct, Belfast BT9 5AB		suitability 14 Yrs +
ADMISSION & BOOKING		

Invasive Alien Species (IAS) cause enormous ecological and economic damage globally, but can be near impossible to eradicate. To understand and predict the impacts of IAS and take action against them, scientists at QUB have developed ways to predict the effects of IAS on biodiversity. Using examples such as "killer shrimps", lionfish and red-eared sliders, this lecture will discuss the latest research and what we can achieve to protect our environment from IAS.



SCIENCE IN SOCIETY

Riding on a Magic Carpet of Success

DATE Thu 20 February	TIME(S) 2:00 – 3:00pm	
VENUE Brownlow House Windsor Avenue Lurgan, Co Armagh, BT67 9BJ		SUITABILITY 10 Yrs +
ADMISSION & BOOKING Free. Book via nisciencefestival.com		

The Imposter Syndrome is often discussed as one of the biggest problems that hold people back from achieving their full potential as scientists. At the heart of this is the myth that to be successful you need to be almost omnipotent and to have gone from success to success without having ever made a mistake or experienced failure. In this talk Professor Tom Welton, Dean of the Faculty of Natural Sciences at Imperial College London, will give a warts-and-all presentation of his career to show you just how wrong this myth is.









ENGINEERING & ROBOTICS

Restoring the LCT704 D-Day survivor

DATE Thu 20 February	TIME(S) 5:30 – 7:00pm (self-guided tour) 7:00 – 8:30pm (talk)	
VENUE HMS Caroline, Alexandra Dock, Queens Rd, Belfast BT3 9DT		SUITABILITY 18+
ADMISSION & BOOKING £5/£3 concession. Book via hmscaroline.co.uk or 028 9045 4484		

This February, step on board HMS Caroline for a fascinating evening talk from Nick Hewitt, Head of Collections at the National Museum of the Royal Navy.

Gain an incredible insight into D-Day survivor LCT 7074. Visitors can learn all about the landing craft's unique history and hear more about the important work the museum are doing to help conserve and expertly restore the vessel.

As part of the event, visitors will have the opportunity to take a self-guided tour of HMS Caroline between 5.30pm - 7.00pm, prior to the commencement of the talk



SCIENCE IN SOCIETY

NISCIENCE FESTIVAL 2020 | NISCIENCEFESTIVAL COM

Science vs. Microbes

Thu 20 February	TIME(S) 6:00 -	· 7:00pm
The Graduate School, Queen's University, University Rd, Belfast BT7 1NN		SUITABILITY 18+
ADMISSION & BOOKING Free. Book via nisciencefestival.c	om	

Antibiotic resistance has become a hot topic in recent times, with scientists predicting a dark future that will see the surge of deadly bugs, capable of overcoming any treatment developed so far. Pharmacists play a major role in the fight against microbes by doing research and ensuring responsible use of medicines. Join experts from the School of Pharmacy (QUB) and the City Hospital to discuss how we've reached this point, what researchers have been doing to get around this issue and what the future has in store for us







TECH & DIGITAL

Turing Lecture 2020

Digital Twins: The Next Phase of the Al Revolution?

DATE Thu 20 February	TIME(S) 6:00 – 8:00pm	
VENUE Assembly Buildings Conference Centre, 2-10 Fisherwick Place, Belfast BT1 6DW		SUITABILITY 14 Yrs +
адмізsіом & воокіма Free. Book via nisciencefestival.c	om	

The idea of an Intelligent Digital Avatar conjures up many images from a complete virtual world that one can safely define, develop and play in to roque robots running amok and destroying mankind. The reality is much less dramatic but no less far reaching and exciting. This talk will discuss Digital Twins and chart their history to present day technological capability along with the challenges we face to realise the potential of Digital Twins.

Professor Mark Girolami's research lies at the intersection of the Statistical, Mathematical, and Computing Sciences, where he has made major contributions to the development of Machine Learning and applications in the Engineering and Natural Sciences.





Out for the Count

The Mathematics of Voting & Electoral Systems

_{DATE} Thu 20 February	_{Тіме(s)} 6:00 – 7:30pm	
VENUE Crescent Arts Centre, 2-4 Univer Rd, Belfast BT7 1NH		
адміssion & воокіма Free. Book via nisciencefestival.c	om	

Democracy relies on fair and free elections, but how does the voting system affect the outcome? In Northern Ireland, most elections use the Single Transferable Vote system, but elsewhere across the UK and Ireland, different systems are used. But which is the fairest and/or most effective? In this hands-on workshop you will discover the maths behind electoral systems by counting paper ballots in a mock election. Come and see how different systems can return very different results!







FOOD FOR THOUGHT

The Geology of Food

Thu 20 February	TIME(S) 6:30 – 8:30pm	
venue Killeavy Castle, 12 Ballintemple Road, Killeavy, BT35 8LQ		SUITABILITY 18+
адмізвідня в водкілів £40 Book via nisciencefestival.com		

Join the Mourne Gullion Strangford aspiring UNESCO Global Geopark for an evening of gastronomic geology. You'll be guided through a tantalising selection of locally-sourced products as part of a carefully designed tasting menu. Along the way you'll discover how the area's world-class geology and landscape has influenced the way it tastes, how it is produced, and why our local products are the best there is!



TECH & DIGITAL

The Plastic Waste Solution

	Thu 20 February	тіме(s) 6:30p	m – 7:30pm
	VENUE Life Centre, 11a Bruce St, Belfast BT2 7JD		suitability 14 Yrs +
ADMISSION & BOOKING Free. Book via nisciencef		encefes	tival.com

Now is the time for a radical change in how we deal with plastic waste. If we fail, plastic will outweigh fish in our oceans by 2050. Join Mark Miodownik and a panel of experts to catch up with new research, technology, and social movements promising to create a zero-waste economy and find out how you can get involved and make a difference. This event is part of our Innovate UK Grand Challenges series which focuses on the global trends which will transform our futures.











MIND & BODY

Can you See Me?

_{DATE} Thu 20 February	^{тіме(s)} 7:00pm – 8:00pm	
venue Nerve Centre, 7-8 Magazine St, Derry~Londonderry, BT48 6HJ		SUITABILITY 13 Yrs +
армізsіом & воокіма £5. Book via nisciencefestival.cor	n	

Anorexia Nervosa is the most dangerous psychiatric condition, and yet only 13% of those affected are engaged in professional help. The condition may, at one level, be painfully visible - but is poorly understood, often overlooked and causes a great deal of anxiety for everyone involved. Dr David Coyle, Regional Consultant Psychiatrist for the Eating Disorder Service, will give a talk aiming to improve understanding and increase visibility of the condition. This will include the origins of illness, the types of approaches used, how to seek help and a sprinkling of the underlying science.





Chemistry for a Cleaner World

DATE Thu 20 February	TIME(S) 7:00 -	- 8:00pm
VENUE Conor Lecture Theatre, Ulster University, 25-51 York St, Belfast BT15 1ED		SUITABILITY 10 Yrs +
ADMISSION & BOOKING Free. Booking via nisciencefestiva	al.com	

Professor Tom Welton, Dean of the Faculty of Natural Sciences at Imperial College London is the world's first Professor of Sustainable Chemistry. Tom recognises that chemicals are all around us and our modern lives rely on the products of the synthetic chemicals industry. However, the production of synthetic chemicals is often associated with polluting the environment. With the application of Sustainable Chemistry. through using renewable resources and producing synthetic chemicals, we can achieve a cleaner and more sustainable world







NATURAL WORLD

Dawn of the Modern World

Life, Death and Rain in the late Triassic

Thu 20 February	^{тіме(s)} 7:00 — 7:45р	om
VENUE Ulster Museum, Botanic Ct, Belfast BT9 5AB		ILITY S +
ADMISSION & BOOKING £2. Book via nisciencefestival.co	m	

In 1988 we stumbled across evidence for a major climate change event around 230 million years ago, seemingly linked to a mass extinction. The "Carnian Pluvial Event" as it is now known, has now been shown to have diversified many elements of modern ecosystems, from dinosaurs to dinoflagellates, and coccoliths to coral reefs. Without this, our modern world might be very different. Hear the story of its discovery from those that actually discovered it, and what the latest research might imply for current climate change. Presented by Mike Simms (NMNI) and Alastair Ruffell (QUB).





Love Factually

	_{DATE} Thu 20 February	TIME(S) 8:00 -	- 9:00pm
	VENUE Black Box, 18-22 Hill St, Belfast BT	suitability 18+	
ADMISSION & BOOKING £6. Book via nisciencefestival.com			0 0 0 0 0 0 0 0

In her book Love Factually, Laura Mucha goes in search of the truth about true love, dispelling some of the myths, and presenting a new perspective, concerned with people's real lives and real experiences. Whether in or out of a relationship, seeking romance, or happily single, Laura argues that it's time to revaluate the way that we understand love and romance to improve our own relationships with our emotional wellbeing.





ENGINEERING & ROBOTICS

Robot Chef with Foxdog Studios

DATE Thu 20 & Fri 21 February	TIME(S)	- 9:00pm
VENUE Riverside Theatre, Ulster Univers Coleraine (20) Black Box, Belfas	ide Theatre, Ulster University,	
ADMISSION & BODKING £12 Adult / £10 Concession. Book via		

Bring your fully charged phone to control Foxdog's DIY robot chef. IT consultants Lloyd Henning and Peter Sutton present their award-winning interactive comedy show, where the audience operate a robotic kitchen using augmented reality avatars. Help cook dinner by igniting their gas stove, driving a sky tractor and firing the sausage cannon.

Best Show, Leicester Comedy Festival, 2019

★★★ "The most laborious and collaborative fry-up of all time"

i- Newspaper



Why Torture Doesn't Work

The Neuroscience of Interrogation

DATE Thu 20 February	тіме(s) 8:00 — 9:00pm	
VENUE The Crumlin Road Gaol, 53-55 Crumlin Rd, Belfast BT14 6ST		SUITABILITY 18+
ADMISSION & BOOKING £8. Book via nisciencefestival.cor	n	

Besides being cruel and inhumane, torture does not work the way torturers assume it does. As Shane O'Mara's account of the neuroscience of suffering reveals, extreme stress creates profound problems for memory, mood, and thinking, and sufferers predictably produce information that is deeply unreliable, or even counterproductive and dangerous.

ART & SCIENCE

Laughs@theloft: Weird Science

Thu 20 February	TIME(S) 8:30 – 11:00pm	
VENUE Brickwork Lounge, 10 Magazine Street, Derry~Londonderry, BT48 6HJ		SUITABILITY 18+
ADMISSION & BOOKING £5. Book via nisciencefestival.com.		

Laughs@TheLoft comedy club is delighted to be working in conjunction with the NI Science Festival to bring you a very special stand-up treat. Some of the best and brightest stand up comedians in the North will take to the stage to deliver a series of comedy talks on a whole host of bizarre science based subjects. From the truth behind hairy babies to why we think the way we do and more... Hosted by comedy club regular MC Peter E Davidson (As heard on BBC's The Blame Game & Live at The Sunflower) and will feature a whole heap of special guests.







SCIENCE COMMUNICATION

Game of Thrones Landscape Tour

DATE Fri 21 February	_{ТІМЕ(S)} 9:30a	m – 3:30pm
Ulster University, Cromore Rd, Coleraine BT52 1SA Meeting point: Base of the podium steps at main entrance		suitability 18+
ADMISSION & BOOKING £8. Book via nisciencefestival.cor	n	

Winter is coming to the North Coast! Led by staff at the School of Geography and Environmental Sciences at Ulster University, learn more about the environmental processes and history that helped creating some of the most iconic landscapes of Game of Thrones from House Greyjoy, the Iron Islands, Kingsroad and Coast of Dorne. At each stop experience the magical landscape of the famous TV series, as well some hands-on activities showing what it is like being a scientist out in the field

Pub lunch and plenty of photo opportunities are included in the tour



SCIENCE COMMUNICATION

Delightful and Dangerous Liquids with Mark Miodownik

_{DATE} Fri 21 February	TIME(S) 1:00 – 2:00pm	
VENUE Ulster Museum, Botanic Ct, Belf BT9 5AB	suitability fast 16 Yrs +	
ADMISSION & BOOKING £6. Book via nisciencefestival.cor	n	

A series of glasses of transparent liquids is in front of you: but which will quench your thirst and which will kill you? And why? Why does one make us drunk, and another power a jumbo jet? Structured around a plane journey, Mark Miodownik explores the liquids that can bring death and destruction as well as wonder and fascination.







In Praise of Walking:

The new science of how we walk and why it's good for us

DATE Fri 21 February	(Belfa	m – 8:00pm
VENUE Crescent Arts Centre, 2-4 University Rd, Belfast BT7 1NH Seamus Heaney Homeplace, Bellaghy, Co. Derry		SUITABILITY 18+
ADMISSION & BOOKING £6. Book via nisciencefestival.com		

Walking upright on two feet is a uniquely human skill. It defines us as a species. It enabled us to walk out of Africa and to spread as far as Alaska and Australia. It freed our hands and freed our minds. We put one foot in front of the other without thinking - yet how many of us know how we do that, or appreciate the advantages it gives us? In this hymn to walking, neuroscientist Shane O'Mara invites us to marvel at the benefits it confers on our bodies and minds

Can Virtual Reality Improve Gender **Equality in Science?**

DATE Fri 21 February	TIME(S) 4:00 – 4:45pm	
VENUE Ashby Building Foyer, Stranmillis Rd, Belfast BT9 5AG		SUITABILITY 14 Yrs +
ADMISSION & BODKING Free. Book via nisciencefestival.com		

Despite the existence of gender equality initiatives, progress towards gender equality in science has been painfully slow. Our research aims to accelerate this progress through the use of virtual reality to promote greater support and engagement for these initiatives. Step into our virtual environment to learn how gender inequality negatively impacts women pursuing scientific careers by seeing the world through their eyes while taking part in a scientific research conference. After a demonstration of this virtual reality experience, a brief discussion will follow.









SCIENCE IN SOCIETY

Dark Personalities

_{DATE} Fri 21 February	TIME(S) 5:30 -	- 6:30pm
VENUE Queen's University Belfast, David Keir Building, room OG 012 (Stranmillis Entrance), BT7 1NN		SUITABILITY 14 Yrs +
ADMISSION & BOOKING £3. Book via nisciencefestival.com	n	

If dark personality traits are socially toxic, why are they on the rise? Focusing on narcissism as the 'bridge' of personality and a resilience factor, Dr. Kostas Papageorgiou of Queen's University will present new findings to suggest dark personalities such as Machiavellianism, Narcissism, Psychopathy and Sadism are neither bad nor good; they are adaptive or maladaptive depending on the context.





SCIENCE IN SOCIETY

Who Do We Think We Are?

Ancient Genomes and Irish Origins

DATE Fri 21 February	^{тіме(s)} 7:30 — 9:00pm	
VENUE Garvagh RBL Hall, Main Street, Garvagh BT51 5AA		SUITABILITY 18+
ADMISSION & BOOKING Free. Book via nisciencefestival.com		

Ancient DNA has become a vital archaeological tool, enabling genetic postcoding of discoveries of human remains and helping to rewrite the history of Europeans. Professor Dan Bradley (TCD) will explain how human genetics can be used to understand the patterns and processes underlying genetic variations which exist on our island.

Event in partnership with Causeway Coast and Glens Borough Council.



MIND AND BODY

Can You Beat Your Genes?

	Fri 21 February	TIME(S) 8:00 -	- 9:30pm
	The MAC, 10 Exchange St, Wes Belfast BT1 2NJ	suitability t, 16 Yrs +	
ADMISSION & BOOKING £20 / £18 concession. Book via nisciencefestival.co			efestival.com

What is your full potential? Are you held back by your genes? Limited by whatever you inherited from your parents? Is our life's path set at birth or can we overcome our genetic destiny? We are living in age of genetic testing, engineering and cloning: for a few quid anyone can send off a DNA sample and get results about where they came from, who they are, and what their future holds. It's all pretty confusing but Dr Chris and Dr Xand van Tulleken, TV presenters and identical twins, have lived their whole lives as an experiment to get some answers.

They will share the secrets of their work together doing medical research and broadcasting. Will Xand ever lose weight? Can Chris ever be less grumpy? How can they – or anyone – be the best version of themselves?







Soul Tribe Meditation VR in the Bar

6:00 - 7:00pm Fri 21 February SUITABILITY 40 Shipquay Street, Derry BT48 8DW 16 Yrs+ (Top Floor) £5. No Booking Required.

Meditation has been scientifically known to lower blood pressure, improve heart rate and reduce muscle tension, all of which help you to reduce stress and anxiety, and therefore build up your defences against illness and infections.

Aine McDaid has been practicing meditation for 5 years, first in London where she began her training, then continued to develop her skills when she returned home to Ireland. Aine has trained in Vipassana meditation and more recently has begun to practice transcendental meditation. Aine will give a short talk on the benefits and importance of meditation and will guide us through a meditation suitable for complete beginners and seasoned meditators alike.

TECH & DIGITAL

DATE Fri 21 February	TIME(S) 8:00 – 11:00pm	
VENUE Nerve Centre, 7-8 Magazine St, Derry~Londonderry, BT48 6HJ		suitability 18+
ADMISSION & BOOKING £3. Book via nisciencefestival.com	n	

Immerse yourself in a gaming experience like no other with retro arcade machines, virtual reality headsets and interactive games. Challenge yourself with the old and the new, be transported back to the 80s or to the outer limits of our galaxy. Feel the force in Beat Saber, become a galaxy defender in Space Pirate, face your fears on Richie's Plank Experience and get schwifty with Rick and Morty.





SCIENCE COMMUNICATION

Stranded – Wonderfrog does Science

DATE Fri 21 February	TIME(S) 8:00 -	- 10:00pm
VENUE Strand Arts Centre, 152-154 Holywood Rd, Belfast BT4 1NY		suitability 18+
ADMISSION & BOOKING £6. Book via nisciencefestival.com	m	

Belfast's longest running improv comedy group serves up an hour of hot, fresh, off-the-cuff science inflected comedy. The whole show is an experiment of inspiration! Wonder Frog uses only audience suggestions to create comic scenes on the spot that have never been seen before and will never be seen again.

Come along and influence the genetic makeup of the show by throwing your words, ideas and thoughts into the Petri dish of improv and see the results right before your safety-goggled eyes! As always Stranded is a BYO event.

The Mathematics of Dessins D'Enfants

DATE Sat 22 February	TIME(S) 10:00 – 11:00am	
The Open University, 110 Victoria St, Belfast BT1 3GN		
ADMISSION & BOOKING Free. Book via nisciencefestival.com		

An interactive exploration of the incredible mathematical theory of dessins d'enfants ("children's drawings"). We can think of a dessin d'enfant as a shape you obtain by gluing together several triangles. Giving rise to far deeper mathematical ideas, with models and illustrations, and hands-on activities, the workshop investigates some of the secrets of dessins d'enfants and look at the mathematicians who have developed the subject.







NATURAL WORLD

A Journey Through Fire and Ice

Sat 22 February	TIME(S) 10:00am – 4:00pm	
VENUE Meet at Bagenal's Castle, Abbey Newry BT34 2BY	/ Way,	suitability 10 Yrs +
ADMISSION & BOOKING		

£15 (including lunch). Book via 02830313170

The Mourne and Strangford areas are home to internationally important geology formed by incredible Earth processes over many millions of years. This landscape safari will take you on a journey to discover our violent volcanic past and the more recent destructive impact of vast ice sheets and how it has gone on to shape the livelihoods of the people that have lived and worked here.



SCIENCE IN SOCIETY

Belfast on the Brink

DATE Sat 22 February	TIME(S) 10:00 12:30	
Medical Biology Centre, 97 Lisbu Road, Belfast, BT9 7BL	ırn	suitability 8 Yrs +
admission & воокіng £3. Booking via nisciencefestival.	com	ijij

Belfast is back on the brink of a pandemic – the airborne HULC (Human Unidentified Luminous Contagion) virus is sweeping across the city. For one day only, Queen's Medical Biology Centre is acting as Belfast's Centre for Disease Control and visitors are invited to participate in the journey of Discovery to Recovery. As a multidisciplinary team of Scientists, Researchers, Nurses, Medics and Communications Specialists, you will identify the contagion, treat the infected victims, develop a cure and design a public health campaign to prevent the spread of further infection. Once you have saved Belfast from the brink, please join us for some post-pandemic pizza.







FOOD FOR THOUGHT

Women don't breastfeed...

Sat 22 February	тіме(s) 11:00am – 12:30pm	
VENUE Black Box, 18-22 Hill St, Belfast 2LA	: Box, 18-22 Hill St, Belfast BT1	
ADMISSION & BODKING £3. Book via nisciencefestival.com		

- "Women don't breastfeed, cultures do"
- Kimberly Seals Allers, 2019

Join us on a fascinating journey through different cultures and how they feed their babies. Dr Lesley Dornan a lecturer at Ulster University studied women, babies, and milk in different cultures in South East Asia where mothers milk is valued and cherished. Lesley will be joined by Breastival cofounder Dr. Jennifer Hanratty for a discussion on our culture and how it impacts women's choices in feeding their babies.

NATURAL WORLD

The River Faughan and its Woodlands

Sat 22 February	TIME(S) 10:30am – 12:00pm	
venue Brackfield Wood, 268 Glenshane Rd, Londonderry BT47 3SN		SUITABILITY All Ages
ADMISSION & BOOKING £4 Children Under 16 Go Free. Book via nisciencefestival.com		

Join the Woodland Trust and partners along the banks of the River Faughan (one of the best salmon rivers in Europe) to learn about the wonderful habitats the river and its banks provide for its resident wildlife. Help us to carry out surveys to determine how healthy the river is using the kick-sample survey technique, learn about the invertebrates that live in the river and explore how nearby trees and woodlands are beneficial.





NATURAL WORLD

Sustainable Market

DATE Sat 22 February	TIME(S) 10:00-4:00pm	
VENUE Ulster University, York St, B BT15 1ED	suitability Belfast All Ages	
ADMISSION & BOOKING Free drop in market. Charges for some workshops.		

Achieving a planet in balance, one that provides for humanity and the untold millions of other species with which we live, will be the greatest challenge of our century. Our brand new 'NI Sustainability Fair' is the beginning of a new long-term project designed to explore what we must do to meet this challenge.

Book via nisciencefestival.com

Located at the heart of Ulster University's Belfast Campus in the Cathedral Quarter, a range of local, national and international organisations will be demonstrating a variety of practical ways that people can make a real difference for the planet through their everyday lives.

Supplemented with talks from international experts and workshops with local organisations, the Fair will be focused into four themes, each of which addresses an aspect of daily life.

- Buying Smart– sustainable options, reducing plastic waste, reusing and repairing
- Eating well eating through the seasons, foraging, supporting local produce and how you can move towards a more sustainable diet
- Going Wild growing your own and what you can do to help and encourage wildlife
- Bright Ideas an open forum on everything and anything from carbon footprints, community lead initiatives, transportation and much more!

Key note speakers will include Tim Smedley on 'Clearing The Air' (shortlisted for the Royal Society Science Book Prize 2019), Dr Jonny Hanson of Jubilee Farm, Ni's first community owned farm and a panel of young people who are taking direct action for inspire change.

Please note that while admission is free for the marketplace, a small admission applies to specific workshops and keynote talks.



NATURAL WORLD

The Entrepreneurial Planet

DATE Sat 22 February	TIME(S) 11:00	- 12:00pm
VENUE Ulster University, York St, Belfas BT15 1ED	t	SUITABILITY 14 Yrs +
адмізsion & водкінд £3. Booking via nisciencefestival.com		

Join conservationist, farmer and Young Social Entrepreneur of the Year Dr Jonny Hanson as he explores the sciences of ecosystem services and of ecological economics. From pollination and the climate, to circular economies and zerowaste, discover how economy and ecology are inextricably linked, what can be done to green our economic activity, and why the most productive economy on planet earth is planet earth.

NATURAL WORLD

Channel the rage, Challenge the System!

DATE Sat 22 February	тіме(s) 3:00-4:00pm	
VENUE Ulster University, York St, Belfast BT15 1ED	suitability 14 Yrs +	
ADMISSION & BOOKING £3. Booking via nisciencefestival.com		

Global youth activism is empowering more young people to turn their local protests into political action, from pressuring politicians and big business to take action, to revitalizing voters. What can you do? Featuring voices from youth activism across Northern Ireland, including Ellie Crawford from Youth Climate Strike, this discussion will focus on ways to channel your passion for the planet to influence real change.



NATURAL WORLD

Clearing the Air

Royal Society Lecture with Tim Smedley

DATE Saturday 22 February	тіме(s) 1:00-2:00pm	
VENUE Ulster University, York St, Belfast BT15 1ED		SUITABILITY 14 Yrs +
адміssion & воокіng £3. Book via nisciencefestival.com		

In 2014 sustainability journalist Tim Smedley helped his wife and newborn baby out of St Mary's Hospital in Paddington, unaware that he was taking them along one of the most polluted roads, in one of Europe's most polluted cities, in the middle of a month-long air pollution episode that would cause 600 deaths and 1,570 emergency hospital admissions in London alone. Tim tells the full story of air pollution: what it is, which pollutants are harmful, where they come from and, most importantly, what we can do about them. Amidst terrifying statistics Tim uncovers the hope that remains for the planet. Shortlisted for the Royal Society book prize.

THE ROYAL SOCIETY







QUB Astronomy Day Sci Fari @ The Alley

DATE Sat 22 February	_{ТІМЕ(S)} 11:00am – 4:00pm	
VENUE Lanyon Building, Queen's University Belfast, University Road, BT7 1NN		SUITABILITY All Ages
admission & booking Free. Drop-in.		

Join the Astronomers at QUB for space-related family fun, including hands-on booths, an askan-astronomer station, a demonstration of the Northern Lights using the Queen's University Planeterella, and short talks by Queen's astronomers. Weather permitting, there will be a selection of small solar telescopes outside, showing visitors sunspots, prominences and other features visible on our Sun that day.



3)
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lpm

Alley Theatre, Railway St, Strabane BT82 8EF

All Ages

Free, Book via nisciencefestival.com

We're back at The Alley to bring you a fun filled day of workshops and activities designed to introduce all the family to the wonderful world of science and technology. Get up close and personal with weird and wonderful animals from around the world, get hands on with the latest technology, explore and immerse yourself in other worlds with our VR and greenscreen technology. Come be a scientist for the day!





MIND & BODY

Dr Chris and Dr Xand's Brains, Bugs and Body Parts!

DATE Sat 22 February	TIME(S) 11:00am – 12.00 & 2:00 – 3:00pm		
VENUE The MAC, 10 Exchange St, West, Belfast BT1 2NJ		SUITABILITY 4 Yrs +	
ADMISSION & BOOKINS £14. Book via nisciencefestival.com			

Dr Chris and Dr Xand van Tulleken from the hit CBBC children's television series, Operation Ouch! are going to be live on stage for the first time in Northern Ireland! Packed with stunts, crazy experiments and amazing facts, the doctors will explore the fascinating world of human biology and show you the awesome things your body can do! They'll even be on hand to answer all your questions!



North Coast Forage Walk

Sat 22 February	TIME(S) 1:00 – 3:30pm		
VENUE Corrymeela Centre, Drumaroan Road, Ballycastle		SUITABILITY 16 Yrs +	
admission & Booking £8. Book via nisciencefestival.com			

As spring advances, what better way to appreciate nature than to explore and learn about edible plants and seaweeds that grow on and close to the shoreline? In this event, we will be walking along the coast looking at what's good to forage for at this time of the year. The walk will be led by Dermot Hughes of Forage Ireland and will last about 2 hours. Please dress for the weather and expect muddy feet. Meeting at the Corrymeela Centre car park, at 1pm sharp with Tea and Coffee to warm up at Corrymeela afterwards.





ART & SCIENCE

SARC Showcase

DATE Sat 22 February	_{Тіме(s)} 1:30 – 4:30pm	
VENUE Sonic Arts Research Centre, 1 Cloreen Park, BT9 5HN		SUITABILITY All Ages
admission & booking Free. Drop In.		

Manipulate your voice, step into another world, or try on someone else's ears! Get hands on with some of the latest audio and video technology with an interactive open day of what researchers and students in SARC studios are getting up to featuring music, documentaries, audio drama, experiments and more. Sign up for an immersive experience created for and with people with Parkinson's disease (on the hour every hour). You'll even hear the brand-new album created by the teenagers on the JAM4 Music Technology course that takes over SARC every Fri evening.



ART & SCIENCE

Immersive Sound Concert

DATE Sat 22 February	time(s) 1:30 -	· 2:15pm
Sonic Arts Research Centre, 1 Cloreen Park, Queen's University Belfast, BT9 5HN	/	SUITABILITY 10 Yrs +
admission & воокіng Free. Drop in.		

Step into an amazing sound world of immersive music composed especially for the world-class 3D sound system in the Sonic Lab.



ART & SCIENC

Pitch-Perfect Karaoke

DATE Sat 22 February	_{ТІМЕ(S)} 4:30 – 5:30pm	
VENUE Sonic Arts Research Centre, 1 Cloreen Park, BT9 5HN		SUITABILITY 14 Yrs +
ADMISSION & BOOKING £1. Book via nisciencefestival.coi	m	

Are you ready to let the bass drop and hit the notes on the best sound system in Ireland? The Sonic Lab was built for the latest developments in cutting edge audio technologies... but it also works for karaoke. Willing singers will get a chance to sing their favourite tracks cranked up on the massive 3D sound system. We'll dabble with autotune and other effects that will turn your vocal performance into an instant classic! Contact j.darcy@qub.ac.uk to register your interest in singing. Put "KARAOKE" in the subject of your e-mail.









ART & SCIENCE

Why everyone can bloody well hear you when you whisper

DATE Sat 22 February	TIME(S) 2:30 -	- 3:30pm
VENUE Sonic Arts Research Centre, 1 Cloreen Park, BT9 5HN		suitability 14 Yrs +
ADMISSION & BOOKING £2. Book via nisciencefestival.com		

In many concerts, talks and religious venues, there is a tradition of respectful silence often punctuated by somebody whispering. Why do we hear these whispers, even over amplified speech or the climax of a symphony? Why do they think nobody can hear them? Dr Trevor Agus is a crotchety hearing researcher who spends too many concerts pondering these questions. This talk reduces them to simple decibel arithmetic by introducing the relevant aspects of auditory perception, speech production, and room acoustics. It is hoped that reconciling the scientific principles underlying the social tensions will be therapeutic, at least for him.

NISCIENCE FESTIVAL 2020 | NISCIENCEFESTIVAL COM

Microbiology of Milk

DATE Sat 22 February	TIME(S) 2:00 – 3:30pm	
VENUE Black Box, 18-22 Hill St, Belfast BT1 2LA		SUITABILITY 18+
ADMISSION & BOOKING £3. Book via nisciencefestival.com		

Dr Simon Cameron and the Breastival team invite you to discover the amazing world of the microbiology of human milk. Explore the unique compounds that make breastmilk so special. In this interactive session, current nursing mums will also have a chance to participate in new research to help us learn more about human milk. Dr Simon Cameron featured in Channel 4 Dispatches documentary "Breastfeeding Uncovered" and recently joined Queens University Belfast to study the microbiology of milk.







SCIENCE IN SOCIETY

Queen's Archaeology Thinking In Time **Hidden Treasures**

DATE Sat 22 February	TIME(S) 2:00 – 3:30pm	
venue Archaeology & Palaeoecology Centre QUB, 42 Fitzwilliam Street, Belfast, BT9 6AX		suitability All Ages
ADMISSION & BOOKING Free Book via nisciencefestival com		

Have you always wanted to touch the objects in museums with a 'Please don't touch' sign? Then this event is for you! Come and see QUB's Archaeology department's beautiful collection of artefacts from Ireland, Egypt and Rome. Touch the teaching collection, as used by archaeology lecturers and discover the new digital technologies and scientific techniques helping us bring archaeology to your living room. Researchers will also be on hand to tell you all about the collection and what new things are being discovered.



The Science and Psychology of Time

DATE Sat 22 February	TIME(S) 11:00am - 1:00pm & 2:00 - 4:00pm	
VENUE W5, The Odyssey, 2 Queens Quay, Belfast BT3 9QQ		suitability 6 Yrs +
ADMISSION & BOOKING Free with admission to W5.		

If you drew time, how would it look? Would it move, and in what direction? How would you show what is in the past and what is in the future? And what would 'now' look like? Artist Brian John Spencer joins forces with Prof. Christoph Hoerl (University of Warwick) and Prof. Teresa McCormack (QUB) to present fun and humorous illustrations of scientists' ideas about time and how we experience it. Whether you are 8 or 80 years old we are interested in your drawings of time. Join us, do your own drawings and add them to the display!







SCIENCE COMMUNICATION

The Science of Circus

DATE Sat 22 February	TIME(S) 3:00 -	- 4.00pm
VENUE Alley Theatre, Railway St, Strabane BT82 8EF		SUITABILITY All Ages
ADMISSION & BOOKING f.3. Book via nisciencefestival.com		

In the Science of Circus, Professor Lukey Luke takes us on a hilarious journey exploring the parallel patterns that exist in the circus versus the patterns in the real world. Check out his amazing discoveries in Circus and the Solar System and Gravity, a juggler's best friend. Be sure to catch him before he dematerialises to the dimension from whence he came...



ART & SCIENCE

An Evening of Drink and Drugs at Hillsborough Castle

	DATE Sat 22 February	TIME(S) 7:00 -	- 8:30pm
	VENUE Hillsborough Castle and Gardens, The Square, Hillsborough BT26 6AG		SUITABILITY 18+
ADMISSION & BOOKING £18. Book via nisciencefestival.com			

For thousands of years people have partaken of a variety of state altering substances from tobacco, to alcohol through laudanum to cocaine. Join us for a fun evening of discussion and expert insight into legal highs through the ages followed by cocktails and cabaret.



TECH & DIGITAL

Behind the Scenes at the Cinema

DATE Sat 22 February	TIME(S) 12:15	– 1:15pm
VENUE Strand Arts Centre, Belfast	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SUITABILITY 8 Yrs +
ADMISSION & BOOKING £5 book via nisciencesfestival.com		

Have a unique backstage experience at the Strand Cinema – one of the projectionists take you through how a cinema works, learn about the nuts and bolts of an Art Deco cinema. We will show you Beethoven – the last working 35mm projector at the Strand. With expert projectionist and Film enthusiast Alan McClurg.











Astronomy Question White Space with Time & Star Watch

DATE Sat 22 February	TIME(S) 7:00 -	10:00pm
VENUE School of Mathematics and Physi Queen's University Belfast, Univ Rd, Belfast BT7 1NN	niversity Belfast, University	
ADMISSION & BOOKING Free. Book via nisciencefestival.com		

Do you have a burning question about black holes? Do you want to know more about exoplanets? A panel of world-leading astronomers from Queen's University Belfast will explore these colossal questions of the universe and so much more! This event will be followed by Astronomers from Queen's and the Irish Astronomical Association setting up telescopes to give everyone the opportunity to look at stars and nebulae. Please dress warmly!



Beth Healey

DATE Sun 23 February	TIME(S) 1.00 -	- 2.00pm
VENUE Ulster Museum, Botanic Ct, Belfast BT9 5AB		SUITABILITY 12 Yrs +
ADMISSION & BOOKING £5. Book via nisciencefestival.com		

In 2017, medical doctor Beth Healey conducted a year-long mission for the European Space Agency to Concordia Station in Antarctica. also known as 'White Mars'. Beth's role was to investigate the effects of this extreme environment, with its isolation, inaccessibility, altitude and low light levels, on the physiology and psychology of the overwinter crew. Join Beth to learn about her daily life in this most inhospitable environment and the lessons learned for future settlements on Mars.

This event is part of Antarctica Insight, a UK wide cultural programme marking the 200th anniversary of the discovery of Antarctica.





MIND AND BODY

BBC Radio 4 -All in the Mind Live

DATE Sun 23 February	TIME(S) 12:30	- 1:30 pm
VENUE The MAC, 10 Exchange St, West, Belfast BT1 2NJ		SUITABILITY 12 Yrs +
ADMISSION & BOOKING £6. Book via nisciencefestival.com		

Join Claudia Hammond and her guests, Professor Teresa McCormack of Queens University, Belfast and Dr Victoria Simms of Ulster University, to hear about the latest psychological research into how children's understanding of time and of maths changes as they grow up. The event will be broadcast as an episode of All in the Mind on BBC Radio 4 in the spring.

MIND AND BODY

The Art of Rest with Claudia Hammond

DATE Sun 23 February	TIME(S) 3:30 -	4:30pm
VENUE The MAC, 10 Exchange St, West, Belfast BT1 2NJ		SUITABILITY 14 Yrs +
ADMISSION & BOOKING £6. Book via nisiencefesival.com		

Based on the results of 'The Rest Test' - the largest global survey on rest ever undertaken -The Art of Rest counts down the ten activities people find most restful (from watching TV, to spending time in nature, to reading). It explores the science behind why each activity works, and offers a prescription for exactly what you should do to make sure you're getting the rest you need.









NATURAL WORLD

QUB Marine Laboratory Open Day

with Peninsula Kelp

£5 via nisceincefestival.com

DATE Sun 23 February		-2:00pm & 5:00pm
VENUE Marine Biology Station, 12-13 The Strand, Portaferry, Newtownards BT22 1PF		SUITABILITY 14+
ADMISSION & BOOVING		

Wild ocean greens are an ancient ocean vegetable that bring wonderful flavour and nutrition to the dinner plate, as well as providing possibilities for biofuels. Peninsula Kelp hand dive for their seaweed and make it into amazing food produce, and together with QUB Marine Lab will bring a guided visual talk on what just lies below the surface and see how our kelp forests here in Northern Ireland are so important for the future of the role it plays for our planet.



SCIENCE COMMUNICATION

The Puzzle of Time

DATE Sun 23 February	TIME(S) 2:00 -	- 3:00pm
venue The MAC, 10 Exchange St, West, Belfast BT1 2NJ		SUITABILITY 10 Yrs +
ADMISSION & BOOKING £3. Book via nisiencefesival.com		

Time, they say, flies when you're having fun – and drags when you're not! But what exactly is time? Is it an illusion, as some physicists and philosophers think? Is the future really different from the past? What do we mean when we speak of the "flow of time"? Time also influences our attitudes and decisions in ways that are hard to rationalise. For example, studies show that people pay more for a piece of work described as "yet to be carried out", rather than "already completed". Psychologist Professor Teresa McCormack (Queen's University Belfast) and philosopher Professor Christoph Hoerl (University of Warwick) present a fascinating insight into time and how we think of it.







SCIENCE IN SOCIETY

The Murdering Mind of Serial Killers

A Faculty Lecture

DATE Sun 23	February	TIME(S) 3.00 -	- 4.00pm
VENUE Black B BT1 2L	ox, 18-22 Hill St, Belfast A		SUITABILITY 12 Yrs +
ADMISSION & BOOKING £7.50. Book via nisciencefestival.com			

Serial killing is one of the most extreme and bizarre behaviours that humans exhibit. Explaining the phenomenon of serial killing throws up many challenges. This talk will explore the murdering mind of serial killers to examine how much we actually know about them. With illustrations and examples from serial killers from around the World, this lecture with Peter Hepper (QUB) will explore what serial killing is and attempt to get into the mind of serial killer to examine why they kill.

The talk will conclude with a look at serial killers in Northern Ireland and Ireland. Are there any? Are they any different from killers seen elsewhere in the world?

SCIENCE COMMUNICATION

Ten x 9 - Nature

DATE Sun 23 February	TIME(S) 7:30 – 9:30pm	
venue Black Box Belfast	suitability 18+	
ADMISSION & BOOKING Free. Book via sciencefestival.com	m	

Tenx9 is a storytelling event where nine people have up to ten minutes each to tell a true story from their own life. So join us to close the 2020 NI Science Festival in the Black Box for true stories on the theme of Nature. If you have a true story from your own life that you'd like to be considered If you'd like to apply to tell a story please email tenx9@gmail.com



SCIENCE COMMUNICATION

Chris Packham: Pictures from the Edge of the World

DATE Sun 23 February	TIME(S) 3:00 – 5:30pm with interval
VENUE Whitla Hall, Queen's University, Belfast BT7 1NN	suitability 14 Yrs +
ADMISSION & BOOKING £22.50. Book via nisciencefestival.com	

TV presenter, naturalist, conservationist, award-winning photographer and author Chris Packham's new show is designed for impact - challenging conventional ideas about where beauty is found, what good photography is, and what it is for. Everyone is tempted by glamour, the big, the brash and the beautiful. But Chris champions the underdog - for him, humble everyday creatures are just as alluring. At the core of all his work is conservation, so expect tales from the frontline and the hard-hitting truth about how we get it both wrong and right. Funny, inspiring, irreverent and packed with information it's not a lecture, it's a romp through the wild mind of Chris Packham.

Chris is recognised for his outstanding work in television broadcasting, particularly the BBC Springwatch, Autumnwatch and Winterwatch series and his recent awardwinning documentary, Chris Packham: Asperger's and Me. Chris's book Fingers in the Sparkle Jar was also voted the UK's favourite nature book in a 2018 poll carried out by the Arts and Humanities Research Council.

ONGOING EVENTS

NATURAL WORLD

Natural World Film Club

Films at the Museum

Thu 13 – Sun 23 February 10:00am – 4:00pm (Closed Mondays) Ulster Museum, Botanic Ct, Belfast BT9 5AB All Ages | £2, parents go free.

To complement our Capturing Ecology exhibition come down to the museum and watch some brilliant films on the natural world with your little ones. Films will include: Fern Gully, The Song of The Sea - with VR workshop, Madagascar, Bugs Life – check out nisciencefestival.com for full listing!

Living Seas Exploration Stall

Saturday 22 February 10:00am – 5:00pm 3 Yrs+ | Free. Drop in

Too cold to go exploring the beach? We'll bring the beach to you! Come and see the Living Seas Exploration Stall and find out what lives on our shores and under the sea surface. Our team of marine biologists will show you our amazing collection of seashore treasures and, if you are daring, challenge your knowledge of our local sea life with games and quizzes!

CitizenShark

Sunday 23 February 10:30am, 1:00pm & 3:15pm (45 mins) 14 Yrs+ | Free. Book via nisciencefestival.com

Did you know that some sharks lay eggs? When empty egg-cases wash ashore we can identify which types of shark laid them which in turn provides critical information for protecting these "Jawsome" fish. The Sea Deep project is empowering citizens to get involved in local shark conservation because you don't need to be a scientist to make a difference. Join our eggcase ID workshop and gain a unique skill set which you can use on your next trip to the shore!

We're Gonna Need A Bigger Boat

Sunday 23 February 10:00am – 5:00pm 3 Yrs+ | Free. Drop in

Have you ever wondered why a shark has so many teeth but doesn't need a dentist? Then discover the Sea Deep stall where you can sink your teeth in to the world of sharks, skates and rays. Our team of marine biologists will be there to answer all of your fishy questions about these Jaw-some creatures.

Shore Surveys

Saturday 22 February 10:30am, 1:00pm & 3:30pm (30 mins) 18+ | Free. Book via nisciencefestival.com

Step into the fins of a marine biologist for a day. Try our shore survey taster session and learn how to identify some of our most common species. If this event floats your boat, you will have the opportunity to join further training sessions throughout the year as a marine citizen scientist.









NATURAL WORLD

Capturing Ecology

Tues 11 - Sun 23 February	TIME(S) 10:00am – 5:00pm (Closed Mondays)
VENUE Ulster Museum, Botanic Ct, Belf BT9 5AB	fast All Ages
ADMISSION & BOOKING Free. Drop in Exhibition.	

Enter an immersive experience, where dramatic images of spectacular wildlife are paired with the sounds and smells of nature. You'll uncover animals' secret lives through the lenses of scientists themselves. Learn from ecologists working on the front line to tackle the biggest challenges facing the natural world and discover how you can help.



NATIONAL

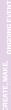
ART & SCIENCE

Duff Balloons Mega Sculpture

DATE Thu 13 – Sun 23 February	-	
VENUE Foyleside Shopping Centre, 19 Orchard St, Derry~Londonderry, BT48 6XY		suitability All Ages
ADMISSION & BOOKING Free, Drop in.		ij.

Ryan Tracey and Darren Mortiboy have been building balloon sculptures for television shows and large events for several years. Previously they have wowed the North West with their creations for the Festival, last year they built a 14ft Einstein with over 400 modelling balloons. Whatever will it be this year? Come along and watch this mega sculpture being built from Tuesday 11th February.







SCIENCE IN SOCIETY

Zero Degree Jobs in Science

DATE Thu 13 – Sun 23 February	
VENUE Video available on-demand via: youtube.com/user/bbcnorthernireland	SUITABILITY 16 Yrs +
ADMISSION & BOOKING Video online and NISF social media chan	nels.

You don't need a degree to get a job in science. There are lots of exciting careers you can start straight out of school. As part of this year's NI Science Festival, BBC Make It is launching an A-Z of jobs you can do if university isn't for you. What career should you have? Watch the video on the BBC Northern Ireland YouTube channel to learn about jobs from agronomist to zookeeper. Look out for the Make It team who will be popping up at different events throughout the festival and keep an eye on social media to find out where we'll be

To learn more search for 'BBC Make It'.





TECH & DIGITAL

Tropical Opus

Thu 13 – Sun 23 February		am – 4:00pm ed Mondays)
VENUE Tropical Ravine, Botanic Gardens, Belfast		SUITABILITY 11 Yrs +
ADMISSION & BOOKING Free Visit nisciencefestival com f	or more	• info

Tropical Opus is an Augmented Reality installation at the Tropical Ravine in Botanic Gardens. Inspired by music and nature, the participants can enjoy the latest AR technology on their personal smartphones. By exploring grains of pollen that they unlock and collect spread throughout the Ravine, they will generate their own unique ambient music compositions that they can save and listen to after they've left the park.

Tropical Opus is a first stage pilot brought to you by Boom Clap Play, Northern Ireland Science Festival and Belfast City Council.







ART & SCIENCE

The Frequency of Things

Thu 13 – Sat 22 February	TIME(S) 11:00am – 5:00pm	
venue Artcetera Gallery, 43 Rosemary : Belfast BT1 1QF	St,	SUITABILITY All Ages
ADMISSION & BOOKING Free. Drop in Exhibition.		

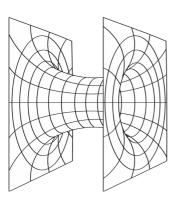
This solo exhibition by Dr Josephine McCormick explores and rethinks "The Frequency of Things" in relation to the impact of "The Internet of Things" (IoT). McCormick's artwork utilises an armoury of techniques such as a frequency generator, drawings, prints, paintings and installation in order to express the experience of the spectacle of modernity.

ART & SCIENCE

International Images of Science

DATE Thu 13 – Sun 23 February	тіме(s) 9:00a	m – 6:00pm
Millennium Forum, 3 Newmarke Derry~Londonderry, BT48 6EB	t St,	SUITABILITY All Ages
admission&booking Free. Drop in.		† á Ťá

International Images for Science is an exhibition of eye-catching photographs that show how science is all around us. The subjects range from the smallest microbes to the distant universe and were taken by a wide assortment of students, amateur photographers and the very best researchers and science photographers. Some images were made on million-pound microscopes, others captured on smartphones and everything in between! 100 images were chosen from over 2500 entries. Each is visually stunning yet also has a science story to tell.



ART & SCIENCE

Miguel Martin: Fire in the Middle

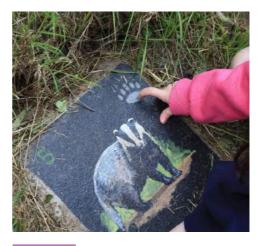
Artist in residence 2020

DATE Thu 13 – Sun 23 February	(Exhil Open 11:00 (Galle	- 8:00pm bition ing: 13th) am-4:00pm ery Open – ed Mondays)
VENUE The Naughton Gallery, Queen's University Belfast, Lanyon Build Belfast BT7 1NN		SUITABILITY 18+
ADMISSION & BOOKING Free. Drop in.	•	

Miguel Martin (b.1985, Belfast, Northern Ireland) presents 'Fire in the Middle', exhibiting new moving-image, photographic, and sculptural works that cross-reference autobiographical elements with science fiction and uncanny cartographies. The exhibition explores the ways in which Netflix culture, the gig economy, and portals act as metaphors for a future in which advanced digital geo-mapping re-configures and re-interprets the post-Troubles topography of Belfast.







NATURAL WORLD

A Walk on the Wild Side

Thu 13 – Sun 23 February	9:00am – 4:00pm	
VENUE Creggan Country Park, 196 Westway, Derry~Londonderry, BT48 9NU		SUITABILITY All Ages
admission & воокіng Free. Self-led trail.		

Self-led walking trail around the middle lake. Families will use a spotter sheet to look for the first signs of spring and solve wildlife themed puzzles along the wayhow you can help.





SCIENCE COMMUNICATION

NISF Science Show Tour

Sat 15 - Tue 18 February 12:00 – 1:00pm (The Science of Star Wars) 2:30 – 3:30pm (The Science of Harry Potter)

SPACE theatre Bangor (15) Newry Arts Centre (16) Flowerfield theatre, Portstewart (17) Ardhowen theatre Enniskillen (18)

7 Yrs +

ADMISSION & BOOKING

£6 per show. Book via nisciencefestival.com

The Science of Star Wars

In this high energy session for all the family, TV science presenter Jon Chase will probe the fantastic frontier between movie magic and cutting-edge science inspired by one of the most iconic Sci-Fi epics in movie history. So, buckle up! and be taken on a space adventure filled with spaceships, super-weapons, and all sorts of visions of the future.

The Science of Harry Potter

Do you ever wonder if science can explain the wizarding wonders of the Potter series? Then this show is for you! Join Jon Chase, co-author of "The Science of Harry Potter", for a positively magical science show which explains the scientific principles behind some of the spells and games that our favourite witches and wizards love best







TECH & DIGITAL

Culture Lab Exhibition

DATE
Fri 21, Sat 22 & Sun 23
February

10:00am - 5:00pm (Exhibition open all day until September 2020)

10 Yrs +

Ulster Museum, Botanic Ct, Belfast BT9 5AB

Free. Drop in exhibition. www.makingthefuture.eu

Culture Lab is an exhibition and engagement programme designed to unpack cultural identity in Northern Ireland and to explore various ways of looking at culture, comparing, contrasting and interpreting it for the future. The exhibition is a dynamic space within the Window on History gallery at the Ulster Museum, using a lab approach, to explore and experiment ways of looking at past and present cultural identity. Using collections, facilitated interactives and community designed outputs, participants will be able to think about, test and explore ideas about cultural identity, contribute to the conversation and have their say. Culture Lab is a part of Making the Future, supported by Peace IV funding, managed by the Special EU Programmes Body (SEUPB).

Discovering the Past at Lackan Bog

Sat 22 February	11:00am – 1:00pm	
VENUE Chandler's House, Church Square, Rathfriland, BT34 5PT		suitability 6 Yrs +
admission & воокіng Free. Drop-in exhibition.		

Lackan Bog, Co. Down, is the remnants of a much larger bog complex that developed over the course of more than 10,000 years. Throughout this time, the bog trapped a wide range of plant and animal remains which were partially preserved within the peat. This exhibition will show the types of information that can be obtained from bogs such as Lackan to help us understand how the environment and human activity have changed through time.



CREATE, MAKE, PLAY.

Learn to make, code, create, invent, experiment and play with a range of hands-on workshops and experiences.

"Play gives children a chance to practice what they are learning"
– Mr. Rogers



Create, Make, Play at W5

SPACE

Little Sparks - Countdown to Space!

Thu 13 February

10:30am, 11:15am, 12:00pm, 1:15pm, 2pm & 2:45pm (25mins each)

W5, The Odyssey, 2 Queens Quay, Belfast BT3 9QQ 2 – 4 Yrs | Book via W5 bookings team on 028 9046 7790.

Ever wondered what it smells like on the moon or what colour Mars is? Come find out in this space themed session specially designed for your youngest scientists. Decorate your space helmet and join the countdown to blast off on our journey around our solar system. The Little Sparks ticket provides a 25 min workshop followed by a 90 min visit to W5 exhibition floors.

SCIENCE COMMUNICATION

Dragon from the Lagan goes to W5

Mon 17, Wed 19 & Fri 21 February 11:00 – 11:45am

3 - 6 Yrs | Book via W5 bookings team on 028 9046 7790.

Children are born natural scientists, so why not bring them to W5 to let them imagine, explore, play in 'Discovery', a place where children can learn about themselves and the world around them. In this 45 min workshop we follow the adventures of a small, friendly dragon as he

makes his way to W5 to discover a world of amazing science! Children can then enjoy some simple science craft activities with the guidance of our friendly Science Communicators.

SPACE

Family Science @ W5

Wed 19 – Sun 23 February 10:30am-12:30pm & 2:00-5:00pm

10:30am-12:30pm & 2:00-5:00pm

7 – 12 Yrs | Free with your admission to W5. Drop in.

Star View

Discover the stories behind the stars. In this short, family activity you can choose your favourite constellation and make a star viewer to take away and continue your learning journey in to space!

Journey to the Stars

Ever dreamt of travelling to the stars? Come along to W5 and build your own rocket to take home with you while you learn about the first Apollo missions to launch in to space!





Create, Make, Play at AMMA

ART & SCIENCE

Green Screen the Science Way

Thu 13 February 10:00am - 3:00pm

Amma Centre, Market Street, Armagh, BT61 7BU 7 – 11 Yrs | Free. Booking via nisciencefestival.com.

This will be a fun filled course where young people can experiment with green screen technology to bring the beauty of science to life. It will be an "out of this world" experience where 'superheroes' and their 'superpowers' are used to their full potential.

ART & SCIENCE

The Science of Art



Tue 18 February

10:00am - 3:00pm

Amma Centre, Market Street, Armagh, BT61 7BU 7 – 11 Yrs | Free. Booking via nisciencefestival.com

Having fun with colour, shape and space - release your natural creativity and imagination through lots of messy science-themed art activities.



TECH & DIGITAL

Coding in Space 👯



Tue 18 February 10:00am - 3:00pm

Amma Centre, Market Street, Armagh, BT61 7BU 12 - 16 Yrs | Free. Booking via nisciencefestival.com Gravity, the natural phenomenon by which all things are brought toward one another! Begin your journey into the world of video game making. In this introductory workshop, you will begin to develop a game, using gravity as the main game mechanic.

TECH & DIGITAL

Exploring Soundwaves

Thu 20 February 10:00am - 2:00pm

Amma Centre, Market Street, Armagh, BT61 7BU 14 – 16 Yrs I Free, Booking via nisciencefestival.com This workshop will allow participants to investigate how we interpret the world around us through sounds. Through practical experiments and some coding participants will have the opportunity to record and transform audio. As well as experience recording in the AmmA studio. d your own rocket to take home with you while you learn about the first Apollo missions to launch in to space!



Create, Make, Play at Armagh Planetarium

SPACE

Make Your Own Kite

Wed 19 February

12:00 - 12:45pm.

(Timed workshops please visit website for more info.)
Armagh Observatory and Planetarium,

College Hill, Armagh BT61 9DB

3 Yrs + | £7 per kite.

Book via www.armagh.space/visit or 028 37523689

How you ever wanted to design your own kite? Join the folks at Go Fly Your Kite and find out how they work, then design your own kite and learn how to fly it. After the workshop watch your bespoke kite soar high while flying it in our Astropark.

SPACE

Ask the Astronomer

12:00 - 1:00pm

Fri 21 February

6 Yrs + | Free with admission to planetarium.

Do you have any burning questions about the wonders of the universe? Take the chance to ask our astronomers in these interactive drop-in sessions. They'll also be on hand to help you set up your own telescope offer expert advice for stargazing at home.



SPACE

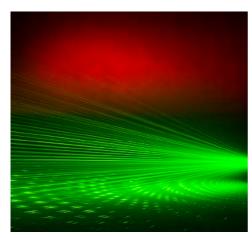
Comet 101 Workshops

Thu 20 February

12:00 - 12:45pm

All Ages | Free with Dome show or exhibition ticket. Book via www.armagh.space/visit | 028 37523689

Come and learn all about Comets in our Comet 101 workshop and then watch as we make our very own comet before your eyes!



MATHS &PHYSICS

Lasers Live

DATE Tue 18 – Sat 22 February	TIME(S) 11:00am – 5:00pm (Workshops every hour)	
VENUE Ulster Museum, Botanic Ct, Belf BT9 5AB (TBC)	ast	suitability 6 Yrs +
admission & воокіng Free. Drop in.	•	•

Ever wondered why a light bulb brightens up a whole room while a laser produces only a very narrow beam of light? Lasers Live will demonstrate how light is a form of energy, how different colours interact differently, and how lasers can provide us with technologies that were the stuff of dreams just a decade ago. Experts from the Centre for Plasma Physics, Queen's University Belfast, will be on hand to explain these topics and many more. A unique opportunity for adults and children alike to discover how research by laser and plasma physicists at Queen's is playing a leading role in how our future world will look.



SCIENCE COMMUNICATION

Little Scientists Lab

	^{DATE} Fri 14 February	TIME(S) 10:30; 12:30;	
	venue Dry Arch Centre, 50 Legavallon Road, Dungiven, BT47 4QL		SUITABILITY 2 – 4 Yrs
	admission & booking Free. Drop In.	•	

Join us for a morning of fun filled science activities. Put on your lab coat and become a mini professor, get hands on with various funfilled experiments and demonstrations, including chemical reactions, storms and magnets. Get up close and personal with native species, get your very own balloon model from the World's fastest balloon modeller. Transform yourself into a creature of the wild. Supported by SureStart.

MIND & BODY

Maritime Babies

DATE Thu 13 February	TIME(S) 10:30	– 11:15am
venue HMS Caroline, Alexandra Dock, Queens Rd, Belfast BT3 9DT		SUITABILITY 4 months – pre-walking

Book via: learning.caroline@nmrn.org.uk 28 9045 4484



Bring your little ones to an exciting baby sensory morning at HMS Caroline! Together, you and your baby can explore a variety of maritime-themed sensory activities through a range of materials, sounds, colours and textures. This event, led by Squiggles and Giggles, is free but advanced booking is required.







TECH & DIGITAL

Science Saturday at the Saturday Minors Club

DATE	_{ТІМЕ(S)}	
Sat 15 & Sat 22 February	12:00pm – 1:30pm	
VENUE	suitability	
Strand Arts Centre, Belfast	5 Yrs +	
ADMISSION & BOOKING £3 child, adults free book via nisciencesfestival.com		

Steamboy (2004) [PG] Sat 15

An Exciting adventure to explore the purpose of scientific advance – should it serve humanity... or only science itself? Engineering themed workshop at 1.40pm

Mr. Peabody & Sherman (2014) [U] Sat 22

Mr. Peabody, the most accomplished dog in the world, and his mischievous boy Sherman, use their time machine to go on the most outrageous adventure. Design your own time machine workshop at 1.45pm.





ART & SCIENCE

Lego Bricks Challenge at HMS Caroline

DATE Mon 17 & Tue 18 February	TIME(S) 11:00	am – 4:00pm
VENUE HMS Caroline, Alexandra Dock, Queens Rd, Belfast BT3 9DT		SUITABILITY 3 – 14 Yrs
ADMISSION & BOOKING Free with admission to HMS Card Book via hmscaroline.co.uk 028		1484 ***

Ahoy there, landlubbers and join the crew at HMS Caroline, discovering their exciting Lego Bricks Trail. Families can step on-board this incredible First World War ship and take part in a variety of Lego themed challenges all facilitated by Bricks4Kidz. You can search the ship for hidden Lego figures and take part in a variety of building challenges all with a maritime theme! So step on-board this February for the ultimate family day out. Book online now to save 20% off all tickets at hmscaroline.co.uk.





ART AND SCIENCE

Science with Starjump

Sat 15 & Sun 16 February

The Boulevard, Banbridge (15) & Accidental Theatre (16)

Sensory Space

10:45 - 11:30am

0 – 3 Yrs | £6. Book via nisciencefestival.com

Let your little one explore the world of science using all of their senses. Experiment with materials, developing an understanding of the world around us through touch, taste, smell, sight and sound.

Dino Dig

12:30 - 2:00pm

3 – 6 Yrs | £10. Book via nisciencefestival.com

Be taken back to prehistoric times to explore all things dinosaurs and archaeology. This Children's workshop will encourage imaginative play, story telling and sensory activities.

Fantastic Fossils

2:30 - 4:00pm

6 – 10 Yrs | £10. Book via nisciencefestival.com

Uncover an array of prehistoric fossils hidden in our variety of fun activities, make your very own archaeological discovery and explore the clay and play materials









NATURAL WORLD

Hands-on Science with ScienceStarz

Mon 17 February & Wed 19 February	10:30am – 12:00pm & 2:00 – 3:30pm	
VENUE Various libraries throughout Belfast		suitability 5 – 11 Yrs
ADMISSION & BOOKING		

Free. Booking via nisciencefestival.com (tickets only required for children)



Come and join Science Starz as they return to the NI Science Festival this year to carry out a variety of hands-on experiments and investigations with children aged 5-11.

Mon 17 February

Falls Road Library | 10:30am – 12:00pm Chichester Library | 2:00 pm – 3:30pm

Wed 19 February

Ormeau Road Library | 10:30am – 12:00pm Cregagh Library | 2:00 pm – 3:30pm

Visitors From Space: Meet the Meteorites

DATE Sat 15 February	TIME(S) 11:00a	am – 1:00pm
VENUE Ulster American Folk Park Visitor Centre, 2 Mellon Rd, Omagh BT 5QU		suitability 10 Yrs +
admission&воокіng Free. Drop in.		

Fly me to the Moon, or you could just take a bus! From pieces of the Moon and Mars, to a chunk of an iron meteorite that created the vast Meteor Crater in Arizona, to pieces of another meteorite that exploded over the Russian city of Chelyabinsk on this day in 2013. This is a chance to see and touch a selection of rare objects, which have travelled further and are far older than anything else you will have ever encountered!

NATIONAL Museums Ni



ART & SCIENCE

Frequency and Cymatics Workshop

Sat 15 February	TIME(S) 11:00am, 1:00pm & 3:00pm (60 min sessions)	
venue Artcetera Gallery, 43 Rosemary : Belfast BT1 1QF	tcetera Gallery, 43 Rosemary St,	
ADMISSION & BODKING Free. Book via nisciencefestival.com		

Join artist and printmaker Dr Josephine McCormick at her pop up art studio at the Artcetera Gallery to learn how to capture frequencies as Cymatic patterns using a frequency generator. Cymatic patterns will also be made using a tripod, plate, sand and violin bow. This is one element of her solo exhibition, 'The Frequency of Things'. Learn how everything has a frequency, even humans!

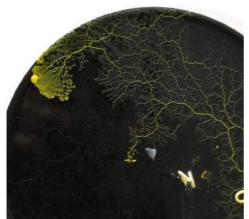
NATURAL WORLD

Sea Creature Nature Trail & Beach Art

DATE Sat 15 February	TIME(S) 2:00 - 3:30pm
VENUE Cockle Row Cottages, Groomsp Harbour, Bangor, BT19 6JR	suitability port 6-10 Yrs
адмізsіом & воокімо £3. Book via nisciencefestival.co	m tit i

Blow off the cobwebs and join local naturalist 'Woody' who will help your little ones uncover the sea creatures living on the seashore and have fun creating some beach art on the sandy cove at Groomsport. Tour departs from Cockle Row Cottages, all children must be accompanied by an adult. Please ensure to wear suitable outdoor clothing.







ART & SCIENCE

Slime Dynamics III

Exhibition & Workshops

DATE Sat 15, Sun 16, Sat 22 & Sun 23 February	TIME(S) 2:00 – 7:00pm (Drop in Exhibition) 3:00 – 5:00pm (Workshops)	
VENUE PS ² , Project Space, Spencer House 71 Royal Avenue Belfast BT1 1FE UK		suitability 12 Yrs +
ADMISSION & BOOKING £3 for workshops. Book via nisciencefestival.com		

Slime Dynamics III is an exhibition and series of four workshops by artist Jasmin Märker that explore what non-human ecological communities i.e. slime moulds, can teach us about contemporary urban dynamics. Slime moulds are yellow unicellular organisms famously known for replicating the Tokyo railway system in just 26 hours. During a workshop, participants will create living maps with these fascinating organisms and be able to them take home to observe as they evolve.

ART & SCIENCE

Cyanotype Blueprints

DATE Sun 16 February	TIME(S) 1:00 – 2:00pm	
VENUE Nerve Centre, 7-8 Magazine St, Derry~Londonderry BT48 6HJ		suitability All Ages
ADMISSION & BOOKING £3. Book via nisciencefestival.com		

This workshop will utilise analogue technologies and the process of cyanotype to create a unique blueprint of the walled city. The cyanotype process was first introduced by astronomer John Herschel in 1842 as means of reproduction. Source material will be collated in advance from maps and existing photographs, printed on acetate and available to create unique collages. The goal is to experiment with this imagery in order to create unique negatives that can be subsequently printed as a photographic record.



Little Professors

Tue 18 February 10:15am (Workshop)
11:00am – 12:00pm (Dome Show)

VENUE
Armagh Observatory and Planetarium, College Hill,

Armagh BT61 9DB

£3 per child. Book via www.armagh.space/visit 1028 37523689

TATA

Songs, rhymes and toddler science experiments followed by toddler Dome Show. Transport your Little Professors into the exciting world of science. Join us for a Dome Show, songs, storytelling and hands-on experiments. This innovative event could inspire the next Albert Einstein!



TECH & DIGITAL

Smart City Experience

DATE Tue 18 February	TIME(S) 12:00	– 4.00pm
Foyleside Shopping Centre, 19 O St, Derry~Londonderry BT48 6X	leside Shopping Centre, 19 Orchard	
admission & booking Free. Drop in		

Join us on Tuesday 18th February from 12pm-4pm in Foyleside Shopping Centre as we showcase our Smart City Programme! Join us for a range of interactive educational workshops, competitions, exhibitions and insights into how technology can solve real problems with showcase ideas from our young participants in our Smart City programme and local business partners. For further information please contact smartcity@seagate.com or Sarah Quinn on sarah.quinn@bitcni.org.uk.

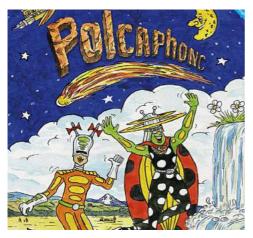


MATHS & PHYSICS

UV Pictures Workshop

DATE Tue 18 February	_{ТІМЕ(S)} 11:00am – 12.00pm		
VENUE ArtCetera Gallery, 43 Rose St, Belfast BT1 1QF	mary	SUITABILITY 8 – 12 Yrs	
ADMISSION & BOOKING £5. Book via nisciencefesti	val.com	****	

Come to this workshop and make your very own blueprint. You will take home a personalised photograph made from craft materials that are exposed with UV-light. The physics underlying the distinctive Prussian blue colour of this no-camera photography technique will be explained by Dr Liz Conlon as you create your own cyanotype picture.





VDT & GUIENIUE

Polcaphonc le Doimnic Mac Giolla Bhríde

DATE Fri 21 February	_{Тіме(s)} 1:00 – 1:45pm	
venue Cultúrlann McAdam Ó Fiaich, 216 Falls Rd, Belfast BT12 6AH		SUITABILITY 0-10 Yrs
ADMISSION & BOOKING £5. Book via www.culturlann.ie / Phone 028 9096 4180		

Seó úr le hamhráin bhríomhara, nua-chumtha i nGaeilge, do pháistí. Tá 20 amhrán nuachumtha i nGaeilge ar achan rud a bhfuil dúil ag páistí ann: damháin allaí atá santach; taibhsí cairdiúla; páistí ag sábháil an domhain agus eachtráin ón spás a bhfuil suim fhiánta acu in éadach ... go háirithe éadach le cúpla polcaphonc!

Dominic will perform songs from Polcaphonc, his lively new book of songs in Irish for children with everything from a greedy spider, a friendly ghost, children saving the world and a space alien that has a mad interest in fashion, especially clothes with polka dots.

ART & SCIENCE

Hillsborough Castle Inventors' Club

	Sat 22 February	10:30am, 11:45am, 1:45pm & 3:00pm (60 mins per session)	
	VENUE Clore Learning Centre, Hillsborough Castle, The Square, Hillsborough BT26 6AG		SUITABILITY 6-10 Yrs
	ADMISSION & BOOKING Free with admission to Hillshorough Castle		

Hillsborough has played host to a variety of inventions throughout history. From Edison's kinetoscope, to Harry Ferguson's pioneering flight, to our very own Wills Hill and even the lemonade bottle cap! Why not add to this list, trying your hand at designing and creating your own simple invention to take home in this fun workshop for families!



Science Trail

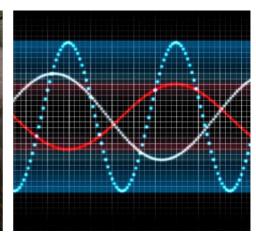
DATE Sun 23 February	TIME(S) 1:00 -	· 4:00pm		
VENUE Playtrail, 15 Racecourse Rd, Londonderry BT48 7RE		SUITABILITY All Ages		
адмізвідня в водкілів £3. Book via nisciencefestival.com				

Join us for the closing of the North West element of the NI Science Festival, at our fun filled day for all the family with lots of workshop, demos, activities and shows at the Playtrail. Please note some activities will be outside so please wrap up warm and prepare for all elements.

Join us for the closing of the North West element of the NI Science Festival, at our fun filled day for all the family with lots of workshop, demos, activities and shows at the Playtrail. Please note some activities will be outside so please wrap up warm and prepare for all elements.

Event in partnership with Playtrail, Derry~Londonderry





SCIENCE COMMUNICATION

Making Waves

DATE Sat 22 February	TIME(S) 1:00 -	1:00 – 4:00pm	
Abbazappa Records, Yellow Yard, Palace St, Derry~Londonderry BT48 6PS		suitability All ages	
ADMISSION & BOOKING Free. Drop In.			

An afternoon of sonic surfing on sine, square and sawtooths... A hands on exploration of noise, music and the physics of sound for all ages.



create your own mix of the city. Make your own mix of Belfast at www.mixthecity.com/Belfast

Become a DJ, sample Belfast's distinct sights and sounds and

#BelfastMusic







Make sure you visit Hillsborough Castle, one of our most exclusive estates. You'll love exploring the opulent gardens at this official Royal residence.

Plan your short break at:





SCIENCE THROUGH THE BRITISH COUNCIL

There are many international opportunities in science for individuals and organisations through the British Council. We link scientists globally, encourage grassroots discussion and promote science in education.

Our work in public engagement includes FameLab, a competition which showcases upcoming talent in science communication and engages the public.

In higher education, the IAESTE programme provides STEM students with international, paid work experience. It also provides employers with access to highly skilled students from over 80 countries. In addition, science and innovation partnerships are developed under The Newton Fund, to promote the economic development and welfare of people in partnering countries and beyond.

Schools can also get involved in international science work through partnerships and staff mobility in programmes like eTwinning, Erasmus+ and Connecting Classrooms.





We have worked with and continue to support a range of companies, but many of today's best ideas look to the future. From clean energy, to managing the needs of an ageing society, from robotics and AI to data and sustainable food production – our scope is vast,

and we want to hear from you.

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THURSDAY 13 FEBRUARY (Pages)				
Green Screen the Science Way	Amma Centre, Market Street, Armagh	10:00am	Art & Science	
Andor Technology factory tour	Andor Technology Factory, Belfast	10:00am	Engineering & Robotics	
Little Sparks Countdown to Space	W5, Belfast	Various	Space	
Maritime Babies	HMS Caroline, Belfast	10:30am	Mind & Body	
Discovery Day at the ISRC	ISRC, Ulster University, Magee Campus	4:00pm	Engineering & Robotics	
15 Million Degrees: A Journey to the Centre of the Sun	School of Mathematics and Physics, QUB	5:30pm	Maths & Physics	
Science of Attraction	Lush, Belfast	6:00pm	Mind & Body	
The Future of Space in Society	Crescent Arts Centre, Belfast	6:00pm	Science in Society	
The Gendered Brain with Gina Rippon	Life Centre, Belfast	7:00pm	Mind & Body	
Keeping Your Head in the Game: Sport Psychology of Football	Ulster University, Belfast	7:00pm	Sport Science	
The Trouble with Lichens	Ulster Museum, Belfast	7:00pm	Natural World	
The Science of Sports Performance: Live on Stage	W5, Belfast	7:00pm	Sport Science	
Chris Watson: A Journey South	SARC, Queens University Belfast	7:30pm	Natural World	
TASTE	Direct Wine Shipments, Belfast	8:00pm	Food for Thought	
	FRIDAY 14 FEBRUARY (Pa	ages)		
Little Scientists	Dry Arch Centre, Dungiven	10:30am	Science Communication	
The Science of Beer & Cheese Tour	Northbound Brewery, Derry~Londonderry	11:00am	Food for Thought	
Exploring Animal Contests	Ulster Museum, Belfast	1:00pm	Natural World	
Belfast's Forgotten Medical History	Various locations in Belfast	5:30pm	Mind & Body	
Cosmic Cuilcagh	Marble Arch Caves Visitor Centre	7:00pm	Space	
Star Tracker Evening	Armagh Observatory and Planetarium	7:00pm	Space	
The Curious History of Sex with Dr Kate Lister	Black Box Belfast	8:00pm	Mind & Body	
SATURDAY 15 FEBRUARY (Pages)				
Extinction: focus on elephants	Belfast Zoo	9:15am	Natural World	
The Science Behind The Farm	Jubilee Farm, 50 Glenburn road, Larne	Various	Food for Thought	

Dynamic Dye Tracing Experiment at the Marble Arch Caves	Marble Arch Caves Visitor Centre	Various	Natural World
X-Ray Vision: The Physics Behind a Radiotherapy Patient's Treatment	Northern Ireland Cancer Centre, Belfast	Various	Maths & Physics
The Patrick G Johnston Centre for Cancer Research	The Patrick G Johnston Centre for Cancer Research, Medical Biology Centre, Belfast	Various	Science Communication
Ocean Currents and Climate at Exploris	Exploris Aquarium, Portaferry	10:00am	Natural World
Science on screen	St George's Market, Belfast	10:00am	Maths & Physics
East Coast Forage Walk	Cockle Row Cottage, Groomsport Harbour, Bangor	10:00am	Food for Thought
Operation Whippersnapper	Crumlin Road Gaol, Belfast	Various	Maths & Physics
Maritime Mile Giant Explorers Trail	Meeting at Titanic Sign, next to Titanic Belfast	10:30am	Engineering & Robotics
The Sound of Space	Armagh Observatory and Planetarium	Various	Space
Climate: Time to Change	School of Biological Sciences Building, QUB	Various	Natural World
Science with Starjump	The Boulevard, Banbridge	Various	Art & Science
Ideas and Imaginations: The Creative Writing of Science	Seamus Heaney HomePlace, Bellaghy	11:00am	Art & Science
Archaeology Weekend At Navan Fort	Navan Centre and Fort, Armagh	11:00am	Natural World
Periods, Pee to Pregnancy	Black Box, Belfast	11:00am	Mind & Body
Secret World of Trees with the woodland trust	Botanic Gardens, Belfast	Various	Natural World
Winter Tree Trail with Friends of Botanic	Botanic Gardens, Belfast	11:00am	Natural World
Visitors From Space: Meet the Meteorites, by Mike Simms	Ulster American Folk Park, Omagh	11:00am	Space
Frequency and Cymatics Workshop	Artcetera Gallery, Belfast	Various	Art & Science
Maddie Moate Live	The MAC, Belfast	Various	Science Communication
Explore the Outdoors	Creggan Country Park, Derry~Londonderry	12:00pm	Natural World
Nick Arnolds Horrible Science Lab - part 2	Nerve Centre, Derry-Londonderry	Various	Science Communication
Physics in the Freezer	Foyleside Shopping Centre, Derry~Londonderry	Various	Science Communication
Foyleside Science Showcase	Foyleside Shopping Centre, Derry~Londonderry	12:00pm	Science Communication

Northern Ireland Raspberry Jam - NISF Special	Venue TBC	1:00pm	Tech & Digital
Curtains up! Stage technology in action	Lyric Theatre, Belfast	1:00pm	Art & Science
Agriculture in Space	Armagh Observatory and Planetarium	Various	Space
Lab View 360: Biomedical Research in Action	Wellcome-Wolfson Institute for Experimental Medicine, QUB	2:00pm	Science in Society
Sea Creature Nature Trail & Beach Art, Groomsport	Cockle Row Cottages, Groomsport	2:00pm	Natural World
Slime Dynamics III	PS ² Project Space, Spencer House, Belfast	Various	Art & Science
Ernest Walton: Nobel Laureate	Old Museum Building, Belfast	2:15pm	Maths & Physics
Dear Life: A Doctor's Story of Love and Loss with Dr Rachel Clarke	Crescent Arts Centre, Belfast	4:00pm	Mind & Body
Death Cafe	Crescent Arts Centre, Belfast	5:30pm	Mind & Body
A Taste of Seitan	Hidden City Café, Derry~Londonderry	6:00pm	Food for Thought
Neo Neo #9 with Una Monaghan	Black Box, Belfast	9:30pm	Art & Science
	SUNDAY 16 FEBRUARY (P	ages)	
Science with Starjump - Sensory Space/sensational sensory play, Dino Dig/ Dino Excavation & Fossil Fun/ Fantastic Fossils	Accidental Theatre, Belfast	Various	Art & Science
Ocean Currents and Climate at Exploris	Exploris Aquarium, Portaferry	10:00am	Natural World
Archaeology Weekend At Navan Fort	Navan Centre and Fort, Armagh	11:00am	Natural World
Secret World of Trees	Botanic Gardens, Belfast	11:00am	Natural World
Winter Tree Trail in the Botanic Gardens	Botanic Gardens, Belfast	11:00am	Natural World
Physics in the Freezer	St. Georges Market, Belfast	Various	Science Communication
The PPP (Public Litter Picking Event)	Benone Beach, Limavady	11:00am	Natural World
Maddie Moate Live	The MAC, Belfast	Various	Science Communication
Nick Arnold's Horrible Science Lab - part 2	Nerve Centre, Derry~Londonderry	Various	Science Communication
How To Argue With A Racist with Dr Adam Rutherford	Whitla Hall, QUB	12:00pm	Science in Society

A Guide Sustainable to Coffee	9ine Hostages Coffee, Derry~Londonderry	12:00pm	Food for Thought
Re-wiring our Brain	Ulster Museum, Belfast	1:00pm	Mind & Body
Cyanotype Blueprints	Nerve Centre, Derry- Londonderry	1:00pm	Art & Science
Slime Dynamics III	PS ² Project Space, Spencer House, Belfast	Various	Art & Science
Alice Roberts – The Incredible Human Journey Updated	Whitla Hall, Queen's University Belfast	2:00pm	Natural World
The Pursuit of Motherhood	Bishops Gate Hotel, Derry~Londonderry	2:00pm	Mind & Body
The World According to Physics with Prof Jim Al- Khalili	Whitla Hall, Queen's University, Belfast	4:30pm	Maths & Physics
	MONDAY 17 FEBRUARY (P	ages)	
Kainos Lockdown	Crescent Arts Centre, Belfast	Various	Tech & Digital
The Cosmic Birthday Dance	Crescent Arts Centre, Belfast	10:00am	Space
Hands-on Science with ScienceStarz	Various libraries throughout Belfast	10:30am	Natural World
Dragon from the Lagan goes to W5	W5, Belfast	11:00am	Science Communication
Lego Bricks Challenge at HMS Caroline	HMS Caroline, Belfast	11:00am	Art & Science
Intelligent Systems @ Foyleside	Foyleside Shopping Centre, Derry~Londonderry	12:00pm	Engineering & Robotics
Glimpse into the Armagh Observatory	Armagh Observatory and Planetarium	1:00pm	Space
Launch of Dome Show "Explore"	Armagh Observatory and Planetarium	2:00pm	Space
Maths Madness	Crescent Arts Centre, Belfast	2:00pm	Maths & Physics
Ask Us Anything!	Ulster Univeristy, Belfast Campus	6:00pm	Science Communication
Aerodynamics - the F1 winner	Ulster University, Belfast Campus	6:30pm	Engineering & Robotics
The Challenges of an Ageing Society	Life Centre, Belfast	6:30pm	Tech & Digital
Angst and Adolescence	Nerve Centre, Derry~Londonderry	7:00pm	Science Communication
BEERS & CAREERS	Ormeau Baths Gallery, Belfast	7:00pm	Science Communication
Mensa Magnificent Monday Quiz	Black Box, Belfast	7:30pm	Science Communication
Lost landscapes and climate change, by Jennifer McElwain, Trinity College Dublin	Ulster Museum, Belfast	7:30pm	Natural World

TUESDAY 18 FEBRUARY (Pages)			
Kainos Lockdown	Crescent Arts Centre, Belfast	Various	Tech & Digital
The Science of Art	Amma Centre, Armagh	10:00am	Art & Science
Coding in Space	Amma Centre, Armagh	10:00am	Tech & Digital
Harry's Habitat Adventure	Ulster Museum, Belfast	Various	Natural World
Andor Technology factory tour	Andor Technology Factory, Belfast	10:15am	Engineering & Robotics
Little Professors	Armagh Observatory and Planetarium	10:15am	Space
Lego Bricks Challenge at HMS Caroline	HMS Caroline, Belfast	11:00am	Art & Science
Lasers Live	Ulster Museum, Belfast	11:00am	Maths & Physics
StrongWomen Science	Crescent Arts Centre, Belfast	Various	Science Communication
The Climate Change Challenge	GSNI Core Store, Belfast	Various	Earth & Elements
UV Pictures Workshop	ArtCetera Gallery, Belfast	11:00am	Maths & Physics
The Plant World Under the Microscope	Botanic Gardens, Belfast	11:30am	Natural World
Smart City Experience	Foyleside Shopping Centre, Derry~Londonderry	12:00pm	Tech & Digital
Maths Madness	Nerve Centre, Derry~Londonderry	2:00pm	Maths & Physics
19th Annual Sir Bernard Crossland Lecture	Riddel Hall, Queens University Belfast	5:30pm	Engineering & Robotics
The science behind "Contagion"	Queen's Film Theatre, Belfast	6:00pm	Science in Society
The Future of Mobility	Life Centre, Belfast	6:30pm	Tech & Digital
ABC of the Universe	Accidental Theatre, Belfast	7:00pm	Maths & Physics
BEERS & CAREERS	Ormeau Baths Gallery, Belfast	7:00pm	Science Communication
Spilling the tea on the perfect brew	Black Box, Belfast	7:00pm	Food for thought
Pants on Fire	Crescent Arts Centre, Belfast	7:30pm	Mind & Body
WEDNESDAY 19 FEBRUARY (Pages)			
Family Science	W5, Belfast	Various	Space
Dragon from the Lagan goes to W5	W5, Belfast	11:00am	Science Communication
Lasers Live	Ulster Museum, Belfast	11:00am	Maths & Physics

Make your own Kite	Armagh Observatory and Planetarium	12:00pm	Space
The Cosmic Birthday Dance	Nerve Centre, Derry~Londonderry	2:00pm	Space
Ideas and Imaginations: The Creative Writing of Science	The Graduate School, Queens Univeristy Belfast	4:00pm	Art & Science
Pitch 200	Black Box, Belfast	6:00pm	Science Communication
The Science and Engineering of Super Heroes	Ulster Univeristy, Belfast Campus	6:00pm	Science Communication
What can data do for Northern Ireland?	Life Centre, Belfast	6:30pm	Tech & Digital
ABC of the Universe	Accidental Theatre, Belfast	7:00pm	Maths & Physics
Angst and Adolescence	Crescent Arts Centre, Belfast	7:00pm	Science Communication
Bogland & Blackberries	Seamus Heaney HomePlace, Bellaghy	7:00pm	Science in Society
The Planets - behind the scenes of the OU-BBC series	Ulster Museum, Belfast	7:00pm	Space
Pioneers of Biology: Creating A New Rhythm for Life	Ulster University, Belfast campus	7:00pm	Science in Society
BEERS & CAREERS	Ormeau Baths Gallery, Belfast	7:00pm	Science in Society
The First Stars in the Universe	Bell Lecture Theatre, Physics Building, QUB	7:30pm	Space
	THURSDAY 20 FEBRUARY ((Pages)	
Exploring Soundwaves	Amma Centre, Armagh	10:00am	Tech & Digital
Family Science	W5, Belfast	Various	Space
Lasers Live	Ulster Museum, Belfast	11:00am	Maths & Physics
The secret life of mosses and liverworts	Botanic Gardens, Belfast	11:30am	Natural World
Comet 101 Workshops	Armagh Observatory and Planetarium	12:00pm	Space
Invasive Alien Species - Predicting the Unpredictable	Ulster Museum, Belfast	1:00pm	Natural World
Riding on a Magic Carpet of Success. Lecture by Professor Tom Welton	Brownlow House, Lurgan	2:00pm	Science in Society
LCT 7074: Restoring the National Museum of the Royal Navy's D-Day Survivor	HMS Caroline, Belfast	5:30pm	Engineering & Robotics
Science vs. Microbes	The Graduate School, Queens Univeristy Belfast	6:00pm	Science in Society
Turing Lecture 2020	Assembly Buildings Conference Centre, Belfast	6:00pm	Tech & Digital

Out for the count: The mathematics of voting & electoral systems	Crescent Arts Centre, Belfast	6:00pm	Maths & Physics
The Geology of Food	Killeavy Castle, Killeavy	6:30pm	Food for Thought
The Plastic Waste Solution	Life Centre, Belfast	6:30pm	Tech & Digital
Can you See Me?	Nerve Centre, Derry~Londonderry	7:00pm	Mind & Body
Chemistry for a Cleaner World. Lecture by Professor Tom Welton	Ulster University, Belfast Campus	7:00pm	Science in Society
Dawn of the Modern World: Life, death and rain in the late Triassic, by Mike Simms (NMNI) and Alastair Ruffell (QUB)	Ulster Museum, Belfast	7:00pm	Natural World
Love Factually	Black Box, Belfast	8:00pm	Science in Society
Why Torture Doesn't Work: The Neuroscience of Interrogation	The Crumlin Road Gaol, Belfast	8:00pm	Science in Society
Robot Chef with Foxdog Studios	Riverside Theatre, Ulster University, Coleraine	8:00pm	Engineering & Robotics
Laughs@theloft: Weird Science	Brickwork Lounge, Derry~Londonderry	8:30pm	Art & Science
	FRIDAY 21 FEBRUARY (Pa	ages)	
Game of Thrones Landscape Tour	North Coast	9:30am	Science Communication
Family Science	W5, Belfast	Various	Space
The Science of Beer & Cheese Tour	Northbound Brewery, Derry~Londonderry	11:00am	Food for Thought
Dragon from the Lagan goes to W5	W5, Belfast	11:00am	Science Communication
Lasers Live	Ulster Museum, Belfast	11:00am	Maths & Physics
Ask the Astronomer	Armagh Observatory and Planetarium	12:00pm	Space
Delightful and Dangerous Liquids with Mark Miodownik	Ulster Museum, Belfast	1:00pm	Science Communication
In Praise of Walking: The new science of how we walk and why it's good for us	Crescent Arts Centre, Belfast	1:00pm	Mind & Body
Polcaphonc le Doimnic Mac Giolla Bhríde	Cultúrlann McAdam Ó Fiaich	1:00pm	Art & Science
Can Virtual Reality Improve Gender Equality in Science?	Ashby Building Foyer, Queen's Univeristy Belfast	4:00pm	Tech & Digital

Dark Personalities in Context	David Keir Building, (Stranmillis Entrance) Queen's University Belfast	5:30pm	Science in Society
Belfast's Forgotten Medical History	Various locations in Belfast	5:30pm	Mind & Body
Soul Tribe Meditation	40 Shipquay Street, Derry BT48 8DW (Top Floor)	6:00pm	Mind & Body
In Praise of Walking: The new science of how we walk and why it's good for us	Seamus Heaney HomePlace, Bellaghy	7:00pm	Mind & Body
Who do we think we are? Ancient genomes and Irish origins	Garvagh RBL Hall	7:30pm	Science in Society
Robot Chef with Foxdog Studios	Black Box, Belfast	8:00pm	Engineering & Robotics
Can You Beat Your Genes?	The MAC, Belfast	8:00pm	Mind & Body
VR in the Bar	Nerve Centre, Derry~Londonderry	8:00pm	Tech & Digital
Stranded - Wonderfrog does Science	Strand Arts Centre, Belfast	8:00pm	Science Communication
SATURDAY 22 FEBRUARY (Pages)			
Extinction: focus on elephants	Belfast Zoo	9:30am	Natural World
Ocean Currents and Climate at Exploris	Exploris Aquarium, Portaferry	10:00am	Natural World
The Mathematics of Dessins D'Enfants	The Open University, Belfast	10:00am	Maths & Physics
Belfast on the Brink	Medical Biology Centre, QUB	10:00am	Science in Society
A Journey Through Fire and Ice	Meet at Bagenal's Castle, Newry	10:00am	Natural World
NI Sustainability Fair	Ulster University, Belfast Campus	10:00am	Science in Society/ Natural World
Living Seas Exploration Stall	Ulster Museum, Belfast	10:00am	Natural World
Shore Surveys	Ulster Museum, Belfast	Various	Natural World
Family Science	W5, Belfast	Various	Space
Hillsborough Castle Inventors' Club	Clore Learning Centre, Hillsborough Castle	10:30am	Art & Science
The River Faughan and its woodlands	Brackfield Wood, Derry~Londonderry	10:30am	Natural World
The Entrepreneurial Planet	Ulster University, Belfast Campus	11:00am	Natural World
Women Don't Breastfeed	Black Box, Belfast	11:00am	Food for Thought
Discovering the Past at Lackan Bog	Chandler's House, Rathfriland	11:00am	Natural World

Queen's Astronomy Day	Lanyon Building, Queen's University Belfast	11:00am	Space
Lasers Live	Ulster Museum, Belfast	11:00am	Maths & Physics
Dr Chris and Dr Xand's Brains, Bugs and Body Parts!	The MAC, Belfast	Various	Mind & Body
Sci Fari @ The Alley	Alley Theatre, Strabane	12:00pm	Science Communication
Science Saturday at the Saturday Minors Club	Strand Arts Centre, Belfast	12:00pm	Tech & Digital
Behind the Scenes at the Cinema	Strand Arts Centre, Belfast	12:15pm	Tech & Digital
Clearing the Air with Tim Smedley	Ulster University, Belfast Campus	1:00pm	Natural World
North Coast Forage Walk	Corrymeela Centre, Drumaroan Road, Ballycastle	1:00pm	Food for Thought
Making Waves	Abbazappa Records, Yellow Yard, Derry~Londonderry	1:00pm	Science Communication
SARC Showcase	Sonic Arts Research Centre, QUB	1:30pm	Art & Science
Immersive Sound Concert	Sonic Arts Research Centre, QUB	1:30pm	Art & Science
Screening of Steelchest, Nail in the boot & the barking dog	Strand Arts Centre, Belfast	1:45pm	Tech & Digital
Microbiology of Milk	Black Box, Belfast	2:00pm	Food for Thought
Queen's Archaeology Hidden Treasures	Archaeology & Palaeoecology Centre, Queen's University Belfast	2:00pm	Science in Society
Thinking In Time - The Science and Psychology of Time	W5, Belfast	2:00pm	Science in Society
Slime Dynamics III	PS ² Project Space, Spencer House, Belfast	Various	Art & Science
	Sonic Arts Research Centre, QUB	2:30pm	Art & Science
Channel the Rage, Challenge the System!	Ulster University, Belfast Campus	3:00pm	Science in Society
The Science of Circus	Alley Theatre, Strabane	3:00pm	Science Communication
Pitch-perfect karaoke	Sonic Arts Research Centre, QUB	4:30pm	Art & Science
Astronomy Question Time & Star Watch	School of Mathematics and Physics, Queen's University Belfast	7:00pm	Space
An evening of drink and drugs at Hillsborough Castle	Hillsborough Castle and Gardens	7:00pm	Art & Science

SUNDAY 23 FEBRUARY (Pages)			
Ocean Currents and Climate at Exploris	Exploris Aquarium, Portaferry	10:00am	Natural World
We're Gonna Need A Bigger Boat	Ulster Museum, Belfast	10:00am	Natural World
CitizenShark	Ulster Museum, Belfast	Various	Natural World
Family Science	W5, Belfast	Various	Space
The PPP (Public Litter Picking Event)	Glen Owen to Griannan Fort	11:00am	Natural World
Lasers Live	Ulster Museum, Belfast	11:00am	Maths & Physics
QUB Marine Laboratory Open Day with Peninsula Kelp	Marine Biology Station, Portaferry, Newtownards	Various	Natural World
BBC Radio 4 - All in the Mind Live	The MAC, Belfast	12:30pm	Mind & Body
White Space with Beth Healey	Ulster Museum, Belfast	1:00pm	Natural World
Science Trail	Playtrail, Derry~Londonderry	1:00pm	Science Communication
Thinking In Time - The Science and Psychology of Time	W5, Belfast	2:00pm	Science in Society
The Puzzle of Time	The MAC, Belfast	2:00pm	Science Communication
Slime Dynamics III	PS ² Project Space, Spencer House, Belfast	Various	Art & Science
The Murdering Mind of Serial Killers - A Faculty Lecture	Black Box, Belfast	3:00pm	Science in Society
The Art of Rest with Claudia Hammond	The MAC, Belfast	3:30pm	Science Communication
Chris Packham: Pictures from the Edge of the World	Whitla Hall, Belfast	3:00pm	Natural World
Ten x 9 - Nature	Black Box, Belfast	7:30pm	Science Communication
	ONGOING EVENTS (Pag	ges)	
Capturing Ecology	Ulster Museum, Belfast	10:00am	Natural World
Natural World Film Club	Ulster Museum, Belfast	Various	Natural World
Zero degree jobs	Online	On-Demand	Science in Society
Duff Balloons Mega Sculpture	Foyleside Shopping Centre, Derry~Londonderry	9:00am	Art & Science
Tropical Opus	Botanic Gardens, Belfast	10:00am	Tech & Digital
A Walk on the Wild Side	Creggan Country Park	10:00am	Natural World
The Frequency of Things	Artcetera Gallery, Belfast	11:00am	Art & Science
Miguel Martin: Fire In The Middle	The Naughton Gallery, QUB	11:00am	Art & Science
Culture Lab Exhibition	Ulster Museum, Belfast	10:00am	Tech & Digital



13-23 FEBRUARY 2020 NISCIENCEFESTIVAL.COM