

The logo is a white octagon with the text "NI SCIENCE FESTIVAL" in bold, black, sans-serif capital letters. It is centered within a large teal circle that contains various white line-art icons representing different scientific fields: astronomy (satellites, planets, moon, rocket), biology (DNA helix, microscope, cell, flower, trees, clouds), chemistry (flasks, beakers, test tubes, atom symbol), physics (wind turbine, car, gears, beer mug), and general science (telescope, antenna, laptop with code symbols, sailboat).

NI SCIENCE FESTIVAL

18—28 FEBRUARY 2016
11 DAYS. 100+ EVENTS. INFINITE IDEAS.

FOREWORD

We are delighted to bring you the programme for the second NI Science Festival, an annual celebration of science, technology, engineering and mathematics. Thanks to the foresight and dedication of our sponsors and partners, we present you with an even bigger programme of events in 2016.

During the day the festival will present a range of workshops, talks and interactive activities for young people, parents and schools. In the evening the festival will come alive with an eclectic mix of scientific debates, talks, theatre, comedy, music and film for adults. As well as our core themes of science, technology, engineering and maths, we will be focusing on how science affects our everyday lives through exploring the science of food, music, art and sport.

With over 100 events across more than 25 venues, we invite you to discover the wonderful world of science in your lives.



The Festival Team

FESTIVAL TEAM

Festival Director: Chris McCreery
Festival Manager: Jillian Thompson
Admin & Marketing: Andrew Moore
Communications & PR: Geoff McGimpsey

Design: Ryan O'Reilly | rinky.org
Website: Steven Henry | kingsteven.com

General Enquiries

NI Science Festival
First Floor, 18-22 Hill Street, Belfast BT1 2LA
Tel: 028 91629204 | info@nisciencefestival.com
 niscifest  niscifest

Booking information

Suitability, admission and booking information are indicated in the listings. Ticketing links for events can be found via the festival website nisciencefestival.com. Please bring a printed or email copy of your ticket along to the event.

School Groups

If you would like your school or college to attend any of our listed education events, please go to the registration link detailed on the event listing or the festival website.

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. Venue Information is also available through the Access400 online service at adaptni.org

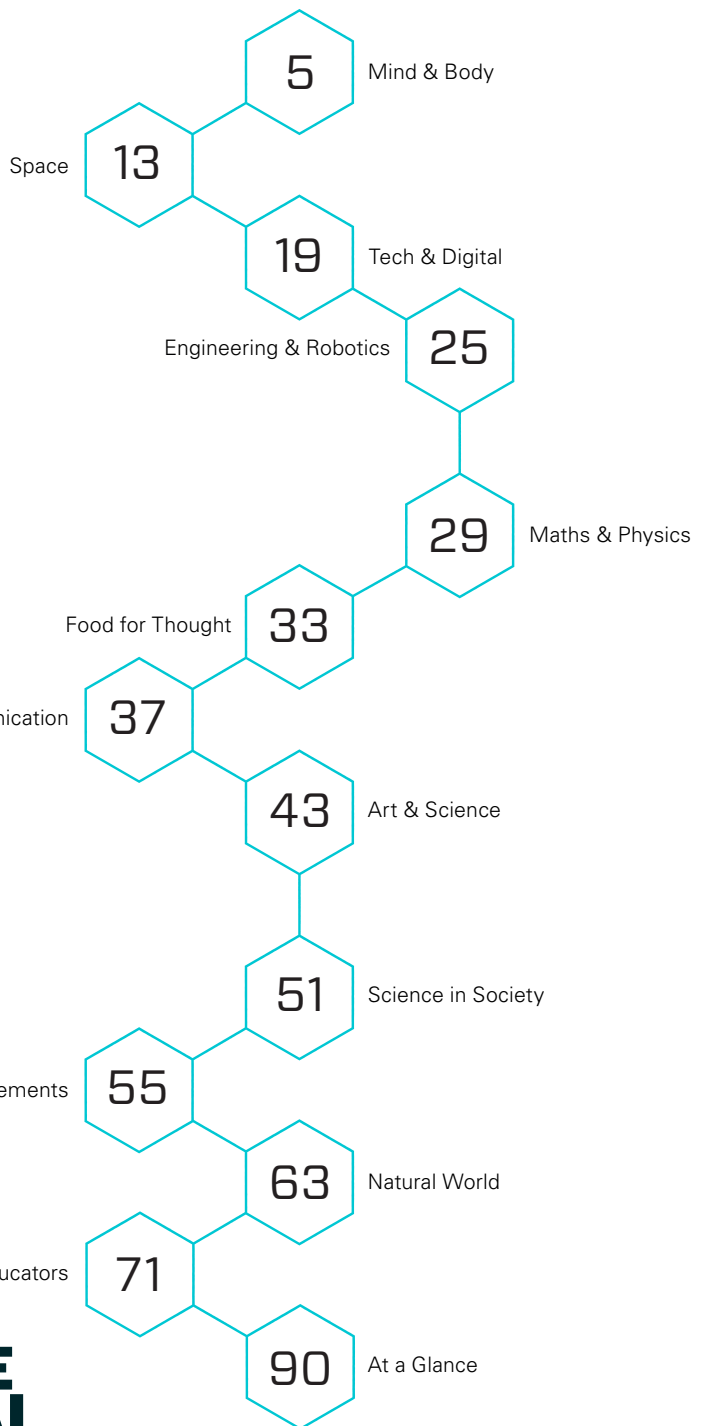
Programme Changes

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.

FESTIVAL BOARD MEMBERS

Liz Conlon (Chair), John Winder (Treasurer), Claire Burgoyne, Jonathan Wallace, Alan Blair, Emma Leahy, Bill Connor, Tony Byrne, Frances Morton, Judith Harvey, Alan Fitzsimmons, Sarah Jones.

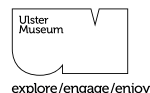
11 DAYS. 100+ EVENTS. INFINITE IDEAS.
NISCIENCEFESTIVAL.COM



Our Funders



Our Partners



Media Partner





MIND & BODY

“There are moments when the human body can overcome things you would never expect.”

- **Andres Iniesta**



SERIOUSLY ENJOYABLE PSYCHOLOGY

DATE MONDAY 22 FEB	TIME(S) 1PM - 5PM
VENUE WHITLA HALL, QUEEN'S UNIVERSITY BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE. DROP-IN FOR DEMOS + SCHEDULED TALKS.	

Psychologists want to understand the mind and behaviour. Everyday fun and entertaining behaviours and activities provide useful ways to gain scientific insights into how humans function.

Join psychologists from the School of Psychology at Queen's University Belfast for a series of talks and interactive activities using enjoyable activities and behaviours to address serious scientific questions. Dr Gary McKeown will explore how laughter and humour reveal important aspects of our social communication. Dr Matthew Rodger will show how music can help people with movement learning and rehabilitation after illness. Dr Kate Woodcock will explain how computer games are being designed to better understand and help children with developmental disorders.



SCHOOL OF
Psychology



**The British
Psychological Society**
Northern Ireland Branch

THE LUCK FACTOR

with Professor Richard Wiseman

DATE MONDAY 22 FEB	TIME(S) 5.30PM - 6.45PM
VENUE WHITLA HALL, QUEEN'S UNIVERSITY BELFAST	SUITABILITY ALL AGES OVER 14+
ADMISSION & BOOKING FREE BUT REGISTRATION IS REQUIRED VIA NISIENCEFESTIVAL.COM	

Why do some people lead happy successful lives whilst others face repeated failure and sadness? Why are some people always in the right place at the right time, while others are always unlucky? For many years psychologist Professor Richard Wiseman has worked with some of the world's luckiest and unluckiest people to answer these fascinating questions. Discover the results of his work and find out how 'The Luck Factor' can change your life.

Professor Richard Wiseman has been described by one Scientific American columnist as 'the most interesting and innovative experimental psychologist in the world today'. He has written several best selling popular psychology books (including The Luck Factor, Quirkology, and 59 Seconds) and has sold over 3 million copies worldwide.

This event is generously supported by the British Psychological Society NI Branch and the School of Psychology in Queen's University Belfast



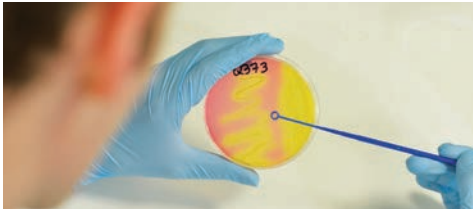
PROFESSOR ROBERT WINSTON

What Makes Us Happy: Reading the Human Mind

DATE		TIME(S)	
SUNDAY 28 FEB		4PM - 6PM	
VENUE		SUITABILITY	
WHITLA HALL, QUEEN'S UNIVERSITY BELFAST		ALL AGES	
ADMISSION & BOOKING			
£16/10 CONCESSION			

What led to French philosopher Michel de Montaigne thanking fortune for the pain he suffered? Or why did Mahler apparently stop composing after his meeting in Holland with Sigmund Freud? Why was Alfred J. Prufrock in T.S. Eliot's poem so chronically depressed and suffering so much lack of self-esteem? Shall we ever really understand what makes us happy?

To some extent, the ability to be happy is inherited, but social scientists have emphasized that various environmental influences – health, a stable society, economic advantages – play a major role. Professor Winston examines the role of brain imaging, hormone study, sexuality, child development, pharmacology and psychological research in understanding how science may help us be happier. Happy people tend to live longer, and recent research suggests we tend to get happier as we get older. Is this simply because we become more forgetful? Can we make ourselves happier and if so, will knowledge of brain function and how we might manipulate it give us more fulfilled lives?



KNOW YOUR ENEMY

Disease-Focussed Research at Queen's University

DATE SATURDAY 27 FEB	TIME(S) 1PM - 5PM
VENUE CENTRE FOR EXPERIMENTAL MEDICINE, 97 LISBURN ROAD, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE DROP-IN EVENT.	

The Centre for Experimental Medicine at Queen's University is a brand new, state of the art research facility that accommodates over 200 research staff. These researchers are committed to improving the lives of patients, and focus their efforts around four main themes: eye diseases, diabetes and vascular disease, infectious diseases and respiratory illness.

Join us for a showcase event to gain first-hand insights into disease focused research, with demonstrations of basic laboratory experiments, patient-based research and clinical trials. Several strands of research will be highlighted in the form of short talks, interactive stands and hands-on stalls. This will include an interactive exhibition from the British Heart Foundation covering the past 50 years of heart research breakthroughs.

Tours of the building will allow visitors to appreciate the work of Queen's University to disease focused and patient based research.



PICK 'N' MIX SCIENCE

with Cancer Research

DATE SATURDAY 20 FEB	TIME(S) 11AM - 12NOON
VENUE COMMON GROUNDS CAFÉ, 12-24 UNIVERSITY AV, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE BUT REGISTRATION IS ADVISABLE VIA NISIENCEFESTIVAL.COM	

Take control of the science in this event exploring the big questions, exciting solutions and unexpected allies in current cancer research. The audience gets to pick their own selection of science stories and demonstrations in this enlightening and family-friendly exploration of one of the most complex and intriguing challenges in modern medical science.





SEXY SCIENCE

A Faculty Lecture

DATE	TIME(S)
SUNDAY 28 FEB	3PM - 4.30PM
VENUE	SUITABILITY
BLACK BOX, HILL ST, BELFAST	16+
ADMISSION & BOOKING	
£6. BOOKING VIA NISCIENCEFESTIVAL.COM	

Kissing. Flirting. Love. These behaviours form the foundation of human existence as we know it. Are humans programmed for monogamy? Are looks really that important?

Society tells us romance is responsible for relationships. The truth is, it's all down to science: a captivating cocktail of chemistry, genetics, biology and evolution.

Some of us don't even get to the kissing stage before falling madly in love with the dark haired barista in Starbucks. Others date for years before finding "the one". And what about those who find "the one"... multiple times? Science can explain why we love to fall in love.

Emer Maguire, UK Famelab winner and stand-up scientist takes us on a journey through the weird, wonderful and downright fascinating phenomenon that is sexy science.



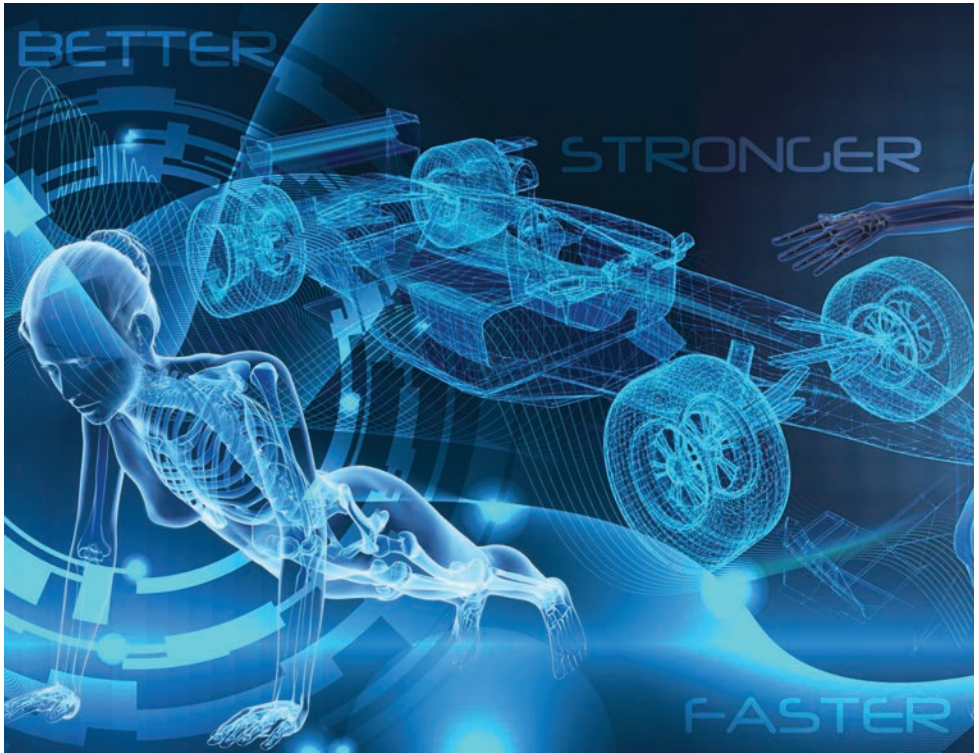
LEVEL UP HUMAN

presented by Simon Watt

DATE	TIME(S)
THURSDAY 25 FEB	8PM - 10PM
VENUE	SUITABILITY
BLACK BOX, HILL ST, BELFAST	18+
ADMISSION & BOOKING	
£6. BOOKING VIA NISCIENCEFESTIVAL.COM	

Evolution has gotten lazy and needs a push. My life would be so much better if it had more tentacles or a prehensile face. Combining gene splicing and transhumanism, medical advancement and surgical enhancement, biology and ambition, Level Up Human takes a light hearted look at what it means to be human, and what the alternatives might be. Join Simon Watt and guests for the live recording of an exciting new podcast series.

@LevelUpHuman | LevelUpHuman.com



BETTER, STRONGER, FASTER!

Sports Science at w5

DATE THU 18 - SUN 21 FEB	TIME(S) 10AM - 6PM
VENUE W5, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE WITH ADMISSION INTO W5.	

In the modern world of sport, athletes, coaches and scientists are continually pushing the boundaries of human physical achievement and completely redefining the limits of the human body. Cutting-edge science is also being employed to develop new materials, equipment and techniques, all with the aim of making us better, stronger, faster!

Can you set the fastest lap on one of the world's most famous racetracks in our full size Formula 1 car? Or why not tackle a virtual rugby player, row against a friend, check your reaction time, take an ice hockey shot and see if you can jump as high as a top basketball player! How good is your iron shot? Find out in the golf simulator. Our range of visual sports simulators will allow you to test your skill and your nerves as you kick conversions in rugby or take penalties against a virtual goalkeeper in an intense stadium environment.

For up to the minute details of associated lectures, events and interactive workshops visit the W5 website - w5online.co.uk



SPECIAL DAY OF ACTIVITY

DATE SATURDAY 20 FEB	TIME(S) 10AM - 6PM
VENUE W5, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE WITH ADMISSION INTO W5.	

Fitness Genes

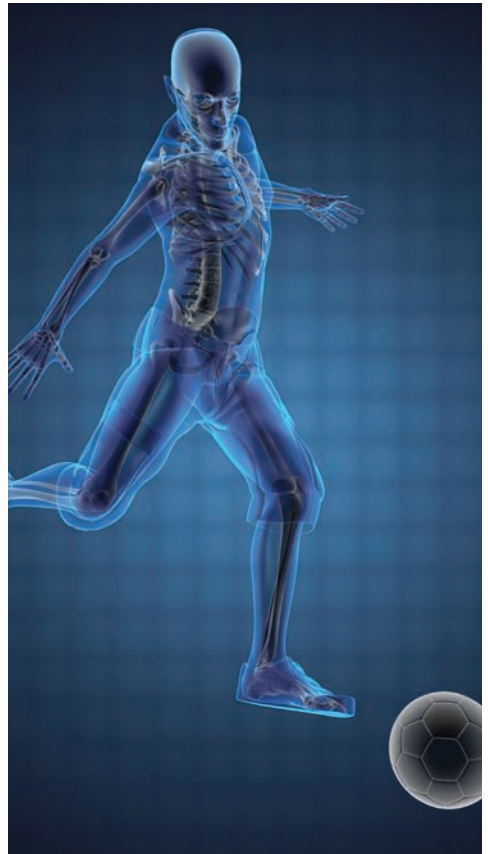
Scientists have found that your genes (a set of instructions which your body uses to determine what you are like) can affect how you respond to exercise and how much benefit you will get out of exercising.

Come and join our workshop to do some hands-on laboratory work with the stratified medicine scientists to find out how our test subjects' genes are affecting their fitness levels and how you can help them improve their fitness and health. Help us as we see how their bodies respond to exercise and what type of training they should be doing based on their genetic make-up.

Are Stem Cells the Answer?

Is it really possible that stem cells could hold the key to creating super athletes? Stem cell therapies hold much promise for the treatment of various injuries and diseases suffered by sportspeople. While there are currently no approved stem cell treatments, researchers are working on harnessing the process by which stem cells repair and replace damaged tissues and cells. Athletes too are always seeking a competitive edge, some even turning to doping to boost stem cell production.

Come along and join in our high speed stem cell game where you begin life as a stem cell and determine your own cell fate. In the process, find out how stem cells can be used and abused in sport.



The Science and Medicine behind Sporting Success

Competition is fierce in the world of high performance sport. Each year it becomes harder to reach the podium and win medals as athletes from all over the world strive for marginal gains over their opposition.

In this lecture discussion and Q&A session, a team of experts from the Sports Institute will take you behind the scenes and reveal some of the science and medicine that sits behind high performance. They will demonstrate the challenges associated with maintaining health and fitness to perform, and explore the value added by support in areas such as strength & conditioning, sports physiotherapy, physiology, performance analysis, nutrition and psychology.



CURIOUS COMMUNITIES

with special guest speaker Emer Maguire

DATE TUESDAY 23 FEB	TIME(S) 5PM - 8PM
VENUE DERRY AND STRABANE CULTURAL HUBS <small>CHECK SCINNOVATE.CO FOR FULL DETAILS</small>	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE ADMISSION. REGISTER VIA SCINNOVATE.CO	

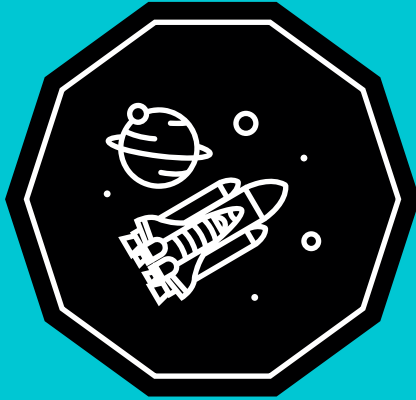
The Curious Communities project was developed through Derry City and Strabane District Council's Science and Innovation programme which brings exciting and fun interactive science activities to community hubs throughout the district. Activities include Science experiments, FabLab and Minecraft. During the NI Science Festival our Curious Communities event will have special guest Emer Maguire, the UK Famelab winner and stand up scientist.



THE COLOUR OF SCIENCE

DATE SATURDAY 27 FEB	TIME(S) 11AM - 4PM
VENUE FOYLESIDE SHOPPING CENTRE, ORCHARD ST, DERRY/LON- DONDERRY	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE, DROP-IN EVENT	

Join us at Foyleside Shopping Centre for demonstrations and interactive activities based around colour, how the eyes see colour and how the brain interprets colour. There will be experiments including chromatography, elephant's toothpaste, surface water tension, food colour experiments, how the eye sees colour, digital colour, LED activities and much more, all facilitated by Culture TECH and STEM Aware. For up to the minute details, check scinnovate.co



SPACE

"I have loved the stars too fondly to
be fearful of the night."

- **Sarah Williams**



CELESTIAL VOYAGE IN 3D

DATE	TIME(S)
SATURDAY 27 FEB	2PM & 4PM
VENUE	SUITABILITY
BLACK BOX, HILL ST, BELFAST	ALL AGES
ADMISSION & BOOKING	
£3. BOOK VIA NISCIENCEFESTIVAL.COM	

These unique one hour live stereo presentations will take audiences on a 3D trip into orbit to the International Space Station looking back at the Earth, out through the Solar System and to the edge of the known Universe.

Audiences will learn how we use space every day in our lives and how we observe our planet from space to monitor and preserve our world for future generations.

We will then travel to Mars to find out how our robotic sentinels and orbiting spacecraft are shining a new light on the Red Planet.

Finally, the audience will explore the universe and find out just how big space really is!

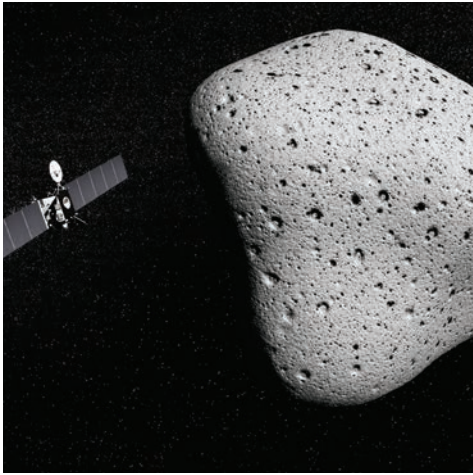


MAKE YOUR OWN SPACE ROCKET!

DATE	TIME(S)
SATURDAY 27 FEB	1PM & 3PM
VENUE	SUITABILITY
BLACK BOX, HILL ST, BELFAST	KIDS AND PARENTS
ADMISSION & BOOKING	
FREE. REGISTER VIA NISCIENCEFESTIVAL.COM	

See real meteorites that have travelled all the way from outer space! Our space expert will teach you all about them as you touch and feel these very special rocks. Then get your hands sticky making paper rockets, model space stations and return capsules (just like the one Tim Peake will need when he returns from space!) and other fun space activities.





DOWN TO EARTH

DATE SUNDAY 21 FEB	TIME(S) 4PM - 5PM
VENUE BLACK BOX, HILL ST, BELFAST	SUITABILITY 18+
ADMISSION & BOOKING FREE. REGISTER VIA NISCIENCEFESTIVAL.COM	

Join the Open University for an exploration of how our Solar System pushes the boundaries of science and engineering. This talk explores how the technology used on the Philae Lander (for the famous Rosetta Mission) is now being applied to other areas of science detecting cancer, sniffing comets, on submarines and more.



The Open
University

PLUTO: The Dynamic & Beautiful Dwarf Planet

DATE SATURDAY 27 FEB	TIME(S) 5PM - 6PM
VENUE LARMOR LECTURE THEATRE, MAIN CAMPUS, QUEEN'S UNIVERSITY BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE. REGISTRATION IS ADVISED VIA NISCIENCEFESTIVAL.COM	

Pluto has been in the world's eye, with its demotion from planet to dwarf planet, and more recently with the fly-by of the New Horizons spacecraft. What exactly does it mean to be a planet and why isn't Pluto one?

During this presentation Dr Wes Fraser from Queen's University Belfast will not only try to answer these questions, but he will also explore some of the amazing imagery coming back to Earth from New Horizons and explain what we now know about this dynamic, and beloved, icy world.





THE SCIENCE OF STAR WARS

DATE SUNDAY 28 FEB	TIME(S) 1PM - 2PM
VENUE BLACK BOX, HILL ST, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING £6/£3 CONCESSION. BOOK VIA NISIENCEFESTIVAL.COM	

Star Wars conjures up images of spaceships, super-weapons, and all sorts of visions of the future. Author Mark Brake and TV science presenter Jon Chase probe the fantastic frontier between movie magic and cutting-edge science in a high energy session for all the family inspired by one of the most successful epics in entertainment history.



THE SCIENCE OF DOCTOR WHO

DATE SUNDAY 28 FEB	TIME(S) 3PM - 4PM
VENUE BLACK BOX, HILL ST, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING £6/£3 CONCESSION. BOOK VIA NISIENCEFESTIVAL.COM	

Space and time, Cybermen and Daleks, Utopias and killer computers: take a journey through the fantastic worlds of The Doctor.

With raps, facts and much merriment and mirth, join author Mark Brake and Science Rapper Jon Chase to explore the Universe of The Doctor.



NEW IMAGES FROM HUBBLE

DATE SUNDAY 28 FEB	TIME(S) 1.30PM - 2.30PM & 3.30PM - 4.30PM
VENUE ULSTER MUSEUM, BOTANIC GARDENS, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING £3 PER PERSON, £10 PER FAMILY (FOUR PEOPLE, WITH AT LEAST ONE ADULT) ADVANCE BOOKING IS RECOMMENDED. BOOK VIA NMNI.COM/UM/WHAT-S-ON FOR FURTHER INFORMATION PLEASE CONTACT 028 9044 0000 OR E-MAIL: ULSTERMUSEUMRECEPTION@NMNI.COM	

Hubble - the first major optical telescope to be placed in space - takes pictures of stars, planets and galaxies as it whirls around Earth at about 17,000mph. Since its launch in 1990 it has travelled more than 3 billion miles at an altitude of about 340 miles. Yet Hubble is only 13.3 meters (43.5 feet) long - the length of a large school bus.

Robert Hill from Northern Ireland Space Office will show us some of Hubble's most recent fascinating images of deep space and explain what they are all about. Whether you are a space novice or an informed enthusiast, you will leave in complete awe of this small telescope in such an enormous 'Space' and what it has revealed to us.



SPACE CAMP REUNION

DATE SATURDAY 27 FEB	TIME(S) 10AM - 4PM
VENUE TOWER MUSEUM, DERRY/LONDONDERRY	SUITABILITY KIDS AND PARENTS
ADMISSION & BOOKING FREE. INVITATION ONLY FROM 10AM TO 1PM 1PM TO 4PM WILL BE OPEN TO THE PUBLIC MORE DETAILS CAN BE FOUND ON OUR WEBSITE SCINNOVATE.CO	

Derry City and Strabane District Council's Science and Innovation programme held a highly successful Space Camp during the summer of 2015 facilitated by STEM Aware. We are reuniting all of the Space Camp buddies together again, including a space movie featuring footage of Tim Peake going to the International Space Station on 15 December 2015, pop-up space activities and an exhibit of all of the summer Space Camp photos on display throughout the day.



Derry City & Strabane
District Council
Councillors:
Chathair Dhoire &
Cheantar an tSrátha Bál
Derry Cille & Strabane
District Council

LIFE AS AN ASTRONAUT

DATE THU - SAT 20 FEB	TIME(S) 11AM - 4PM
VENUE ARMAGH PLANETARIUM	SUITABILITY KIDS AND PARENTS
ADMISSION & BOOKING FREE. NO BOOKING REQUIRED.	

Do you know what it takes to become an Astronaut? How has life changed from the early Apollo missions to the current missions to the International Space Station? How do you eat in space? What does space food taste like? Can you have a bath in space? What will happen to the future explorers, will it be possible to actually live on Mars?

Find out the answers to these questions and more at the Armagh Planetarium's 'Life as an Astronaut' workshop running throughout the day.

STAR WARS AT THE PLANETARIUM

DATE SATURDAY 27 FEB	TIME(S) 12PM, 3PM, 7PM
VENUE ARMAGH PLANETARIUM	SUITABILITY KIDS & PARENTS
ADMISSION & BOOKING £5/£3 CONCESSION. £15 FAMILY TICKET. BOOKING IS REQUIRED TELEPHONE 02837 523689 OR EMAIL RECEPTION@ARMAGHPLANET.COM	

Star Wars conjures up images of spaceships, super-weapons, and all sorts of visions of the future. Author Mark Brake and TV science presenter Jon Chase probe the fantastic frontier between movie magic and cutting-edge science in a high energy session for all the family inspired by one of the most successful epics in entertainment history.

OPEN NIGHT AT ARMAGH PLANETARIUM

DATE TUESDAY 23 FEB	TIME(S) 7PM - 9PM
VENUE ARMAGH PLANETARIUM	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE. BOOKING IS REQUIRED. TELEPHONE 02837 523689 OR EMAIL RECEPTION@ARMAGHPLANET.COM	

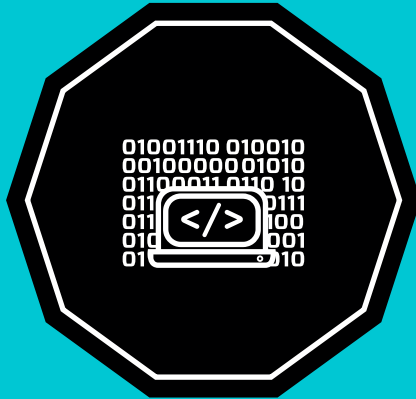
To fully appreciate the beauty of the Universe you should see it with your own eyes. Armagh Planetarium will be hosting a free open night and telescope viewing session. Weather permitting, visitors will be able to view stars of different colours, perhaps some nebulae or maybe even Venus or Mars through our 12 inch telescope.

Also explore the wonders of the cosmos in our free Digital Theatre show screening at 7.30pm. If you would like to join in please be aware that



observing can be done only if the sky is clear. If you already have a telescope or binoculars you are welcome to bring them with you for your own use. Fingers crossed for clear skies!





TECH & DIGITAL

“Let’s go invent tomorrow instead of
worrying about what happened yesterday.”

- **Steve Jobs**



TURING LECTURE 2016

The Internet of Me: It's All About My Screens

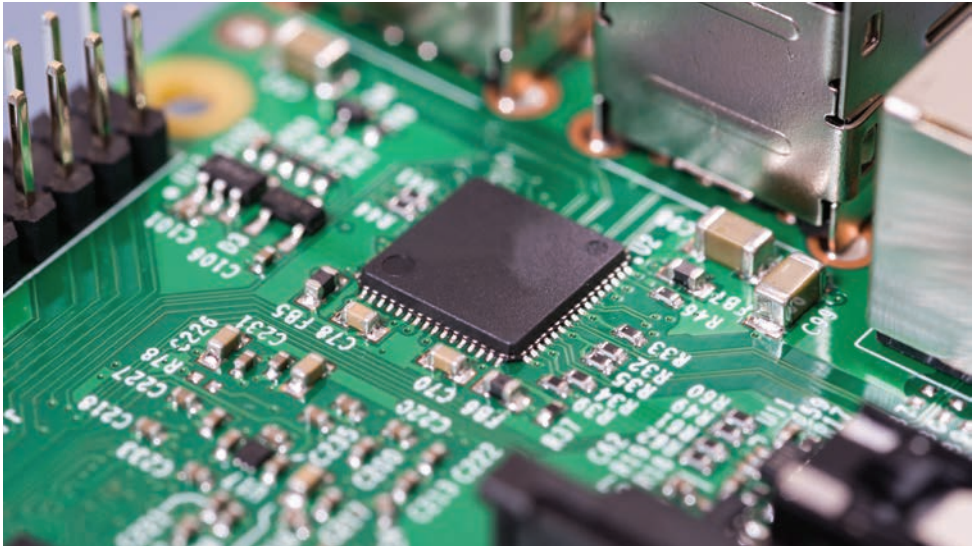
DATE THURSDAY 25 FEB	TIME(S) 5.30PM - 8.30PM
VENUE BELFAST CITY HALL	SUITABILITY 14+
ADMISSION & BOOKING FREE. PRE-REGISTRATION RECOMMENDED AT THEIET.ORG/TURING	

Make sure you don't miss this opportunity to hear Robert Schukai, Head of Advanced Product Innovation, Thomson Reuters, deliver the 2016 IET and BCS Turing Lecture, exploring the rapid growth of personal mobile devices and expansion of data, and the trends and implications for 21st century life.

The remarkable adoption of the smart phone globally has completely revolutionised the way we play, work, and live. New applications and services are being created on a nearly daily basis, and we have the same access to global information on our wrists as we had on personal computers just a few short years ago. We cannot even imagine a world where we are unconnected and out of touch. In near parallel, we are living in a world of big data that gets bigger with each passing day. People and machines are generating incredible amounts of content that can be accessed at any time, courtesy of cheap, connected storage.

Thus lies the crux of our information challenge in the future. Data is everywhere. It's overwhelming. How does one find a true and accurate answer in a sea of knowledge, opinion, disinformation and pure speculation? This lecture will explore our future in this hyperconnected environment, and how our lives will seamlessly drift into a work-life blur based on a "dayflow" of activity. It will look at the digital trends which are driving this from both a consumer perspective as well as from the service provider and will paint a picture of what this means for our 21st century lives.

Robert Schukai is the Head of Advanced Product Innovation for Thomson Reuters. In addition to overseeing the development and execution of the mobile growth strategy across the organisation, his remit also includes the development of new capabilities and experiences around data visualisation and predictive analytics for desktop, mobile, wearable devices and other products. The Turing Lecture is free to attend and will be followed by a networking drinks reception.



BBC NI MAKE IT DIGITAL

DATE THURSDAY 18 - SATURDAY 20 FEB	TIME(S) 3PM - 9PM (THU), 10AM - 7PM (FRI) & 10AM - 6PM (SAT)
VENUE POP UP VENUE IN FRONT OF BELFAST CITY HALL 18 + 19 FEB AND TITANIC QUARTER ON 20 FEB	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE DROP-IN EVENT	

Join BBC Northern Ireland in Belfast city centre to explore how you can Make it Digital every day. We'll be opening up the experiences and opportunities made possible by computer code and sharing the excitement of the Internet of Things.

At this pop up event, you'll discover household technology driven by micro-computers and amazing apps which make aspects of our daily lives easier. Whether a Raspberry Pi controlling a doorbell, a digital device making coffee on demand or the phone app which switches your lights on and off remotely; come along to lift the lid on the connected world which the Internet of Things brings to all of us.

You'll also meet local experts who are revolutionising our lives through technology and play with apps and gadgets which are building our digital future.

BBC's Make it Digital project shares the everyday relevance of coding, programming and digital technology and is suitable for all ages.





After Schools Programme.

INTRO TO DIGITAL FABRICATION

DATE **WEDNESDAY 24 FEB** TIME(S) **4PM - 5.45PM**

VENUE
FABLAB, NERVE CENTRE,
MAGAZINE ST, DERRY/LON-
DONDERRY

SUITABILITY
KIDS AND
PARENTS

ADMISSION & BOOKING

FREE. BOOK VIA EAMON DUREY. 02871 260562, E.DUREY@NERVECENTRE.ORG

INTRO TO 3D PRINTING

DATE **THURSDAY 18 FEB** TIME(S) **1PM - 5PM**

VENUE
FABLAB, NERVE CENTRE, MAGA-
ZINE ST, DERRY/LONDONDERRY

SUITABILITY
ALL AGES

ADMISSION & BOOKING

FREE. BOOK VIA EAMON DUREY. 02871 260562, E.DUREY@NERVECENTRE.ORG

Are you curious about 3D printing? Wondering what all the hype is about? Why not come along to this session and learn a little about the history of 3D printing and then have a go at designing and printing something using one of our printers.

No previous experience is necessary, just curious, inquisitive minds and a creative eye.



Digital fabrication is a style of manufacturing where digital designs are formed by computer controlled machines. Common forms of digital fabrication are:

Laser Cutting: where materials like wood and acrylic are cut or etched by a laser beam

3D Printing: where models are built in layers from various materials

CNC Machining: where designs are cut from sheet materials and then assembled.

In this thrilling introduction to personal digital fabrication participants will have an opportunity to see these machines in action up close and also get to work on a personalised design that they can take home at the end of the session.



LASER CRAFTS

DATE **THURSDAY 25 FEB** TIME(S) **2PM - 5PM**

VENUE
FABLAB, NERVE CENTRE,
MAGAZINE ST, DERRY/
LONDONDERRY

SUITABILITY
16+

ADMISSION & BOOKING

FREE. BOOK VIA EAMON DUREY. 02871 260562, E.DUREY@NERVECENTRE.ORG

A laser cutting is a machine that uses a laser to cut or etch materials. Although typically used for industrial manufacturing applications, laser cutting is now commonly used by schools, small businesses and hobbyists to create all sorts of items both quickly and accurately. During this session you will learn how to design for and interface with a modern laser cutter. If you have a design that you would like to cut and/or etch, or are just curious about what laser cutters can do, book now for this informative and exciting workshop. No experience necessary.



FABLAB OPEN SESSION

DATE FRIDAY 19 FEB	TIME(S) 10AM - 5PM
VENUE FABLAB, NERVE CENTRE, MAGAZINE ST, DERRY/ LONDONDERRY	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE. BOOK VIA EAMON DUREY, 02871 260562, E.DUREY@NERVECENTRE.ORG	

FabLab is a technical prototyping platform for innovation and invention, providing stimulus for local entrepreneurship. A Fab Lab is also a platform for learning: a place to play, to create, to mentor, to invent. Our Lab offers the latest in digital fabrication equipment along with a friendly atmosphere where like-minded people can build, code, solder, design and engineer pretty much anything they can think of. And we have highly trained staff on hand to help you with your project, whether it be something for your home or a brand new product you want to prototype. Why not drop in and release your inner maker?



JUNIOR STEAM ACADEMY

DATE MONDAY 22 FEB	TIME(S) 4PM - 5.45PM
VENUE FABLAB, NERVE CENTRE, MAGAZINE ST, DERRY/ LONDONDERRY	SUITABILITY KIDS & PARENTS / ADULTS
ADMISSION & BOOKING FREE. BOOK VIA EAMON DUREY, 02871 260562, E.DUREY@NERVECENTRE.ORG	

Junior steAm academy offers young people the opportunity to get together in an informal setting and explore the exciting world of new and emerging fabrication technologies. Maybe you have a model that you want to 3Dprint, have an idea for some custom furniture you would like to make, or just want to get together with some like-minded technocreatives. Come along and learn how to bring your CAD drawings to life.



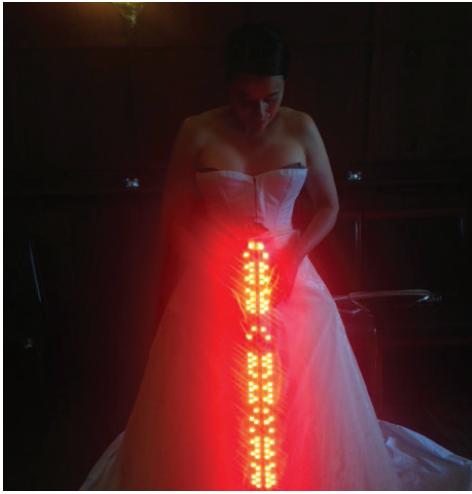
THE LAP OFF

DATE SUNDAY 28 FEB	TIME(S) 8PM - LATE
VENUE BLACK BOX, HILL ST, BELFAST	SUITABILITY 18+
ADMISSION & BOOKING FREE. REGISTRATION IS ADVISED VIA NISIENCEFESTIVAL.COM	

An appropriately anarchic closing for NISF, the 8th Lap Off pits our best electronic musicians and DJs against each other in gladiatorial knockout rounds of ten minutes each and crowd reaction decides who wins. Think 8 Mile with laptops.

Contestants can use their laptop to produce noises in whatever way they like. Other instruments, peripherals, etc are limited only by the ability to channel it through their laptops, and into a left and a right channel in our mixing desk. Past contestants have been DJs, original musicians, and everything in between. Always diverse and always surprising, expect dancing, shouting and a mess of cables like you've never seen.

If you are interested in being a contestant e-mail adam@seedheadarts.com



ADA, ADA, ADA

DATE SATURDAY 20 FEB	TIME(S) 8PM
VENUE CRESCENT ARTS CENTRE, UNIVERSITY RD, BELFAST	SUITABILITY 14+
ADMISSION & BOOKING £10 BOOK VIA NISCIENCEFESTIVAL.COM	

A spellbinding interactive one woman show about the first computer programmer: Ada Lovelace. Ada wrote the first algorithm in 1843 and then got written out of history. Ada.Ada.Ada. combines interactive storytelling and wearable technology to celebrate Ada as mathematician, world's first computer programmer, and inspiration to all. Become part of her story with a kilometre of string and a stunning programmable dress that would make Ada proud.

"Talent, wit and insight all round."

- **The Guardian**

"Zoe is an exceptional, engaging storyteller, enticing her audiences to enter different worlds."

- **Gavin Starks, CEO, Open Data Institute (ODI)**



WOMEN IN TECH

Panel debate sponsored by MCS

DATE FRIDAY 19 FEB	TIME(S) 2PM
VENUE BLACK BOX, HILL ST, BELFAST	SUITABILITY 18+
ADMISSION & BOOKING FREE ADMISSION	

In the style of Question Time, Philpott Design hosts an engaging hour long event about diversity in traditionally male sectors. With a panel discussion including 3 influencers chaired by Zoe Philpott, engage in an intelligent and ultimately positive debate on how to develop team diversity at your business and in the wider industry.


MCSGROUP
INTELLIGENT RECRUITMENT SOLUTIONS



ENGINEERING & ROBOTICS

“Engineers like to solve problems. If there are no problems handily available, they will create their own problems.”

- **Scott Adams**



GRAND CHALLENGES FOR ENGINEERING

DATE MONDAY 22 FEB	TIME(S) 10AM - 9PM
DATE TUESDAY 23 FEB	TIME(S) 10AM - 12NOON
VENUE ULSTER UNIVERSITY, ASSEMBLY HALL, JORDANSTOWN	SUITABILITY KIDS & PARENTS, SCHOOLS & EDUCATORS
ADMISSION & BOOKING FREE BUT REGISTRATION IS REQUIRED VIA NISIENCEFESTIVAL.COM . SCHOOLS NEED TO REGISTER VIA A.BLAIR@ULSTER.AC.UK OR BY CALLING 02890 368664	

Grand Challenges for Engineering presents a range of exciting interactive demonstrations and workshops to excite the audience. Four key-themes will be on show including:

Health Wearables - View the latest diagnostic wearables. From Connected Health to Ambient-Assisted-Living, with underpinning micro-fab, 3-D printing for proto-typing and design software engineering. Measure your vital-signs or explore a smart-environment which senses your every move.

What's next in Aerospace? - Drones to simulators, including hands-on drone workshop with flying-drones.

The Future of Transport - From the future bus to green cars, find out how to build an electric-car and make super-light and strong carbon-composites.

Sustainable Energy - Learn about clean water, hydrogen fuel-cells and electricity from light. It includes a hands-on workshop creating hydrogen from water and electricity from hydrogen fuel-cells.

Plus, win an iPad in our competition.

Schedule

Monday 22nd February 2016:

10.00 – 12.00

Primary school groups

13.00 – 15.00

Secondary school groups

19.00 – 21.00

Open to public

Tuesday 23rd February 2016:

10.00 – 12.00

Grand Challenges for Females in Engineering



ROBOTICS BOT N' ROLL WORKSHOP

DATE FRIDAY 19 FEB	TIME(S) 9.30AM - 12.30PM
VENUE NWRC, STRAND ROAD, DERRY/ LONDONDERRY	SUITABILITY ALL AGES, KIDS & PARENTS
ADMISSION & BOOKING FREE TO REGISTER YOUR ATTENDANCE PLEASE EMAIL MARI.MCGONAGLE@NWRC.AC.UK	

Gain an insight into Electronics and Computer Programming in an informal basis with the NWRC's School of Science and Technology. Based in the Foyle Building of the NWRC Campus, you will help programme and test a robot to enable it to race around a track, Formula 1 style. The concept of the event is to spark an interest and to encourage skills development in electronics and Programming and promote awareness of the application of science in computing and engineering.

A team of students from the college will be competing at the 2016 edition of the RoboParty competition, taking place between 17th to 19th March 2016 in Guimarães, Portugal.

The event will run over two time slots with the first session between 9:30am - 11:00am and the second between 11:30am - 1:00pm



SIR BERNARD CROSSLAND ANNUAL LECTURE

Steve Orr, Director Northern Ireland Science Park CONNECT

DATE WEDNESDAY 24 FEB	TIME(S) 6PM - 7.30PM
VENUE RIDDEL HALL, 185 STRANMILLIS ROAD, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE BUT REGISTRATION IS REQUIRED VIA NISIENCEFESTIVAL.COM	

Engineers Ireland established the annual Sir Bernard Crossland Lecture in 2001 at Queen's University to celebrate and promote excellence in engineering.

This year we are delighted to welcome Steve Orr, Director at the Northern Ireland Science Park CONNECT. His lecture will explore the growing economy in Northern Ireland and what we, as a region, need to do to become a leading innovative hub in Europe.

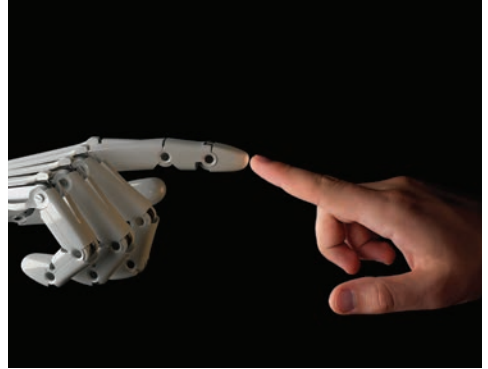
This lecture will appeal to a wide audience and not just limited to those with a passion for engineering!



TITANIC LITTLE EXPLORERS TRAIL

DATE SATURDAY 20 FEB	TIME(S) 10.30AM - 1.30PM
VENUE TOURS START AT THE FRONT OF TITANIC BELFAST BUILDING	SUITABILITY KIDS & PARENTS
ADMISSION & BOOKING £5. REGISTRATION VIA INFO@TITANIC-FOUNDATION.ORG	

A family friendly trail, where you get to explore Titanic Quarter (TQ) searching for clues to the area's shipbuilding and maritime heritage past with a scientific twist. The Wee Tram will ferry everyone around the area, accompanied by a guide and a treasure map with all the clues! Stops include the Titanic's Dock & Pump-House, where you will be met by an expert guide, explaining the engineering brilliance of the original pumps, which could empty 21 million gallons from the massive dock in only 100 minutes. The Wee Tram will also stop along the coal cart rails on the slipways, the tram rails at HMS Caroline and the steam crane rails alongside the Thompson Dock. There will also be spot prizes along the way!



LIVING ON THE PLANET OF THE MACHINES

The Future of Robotics Debate

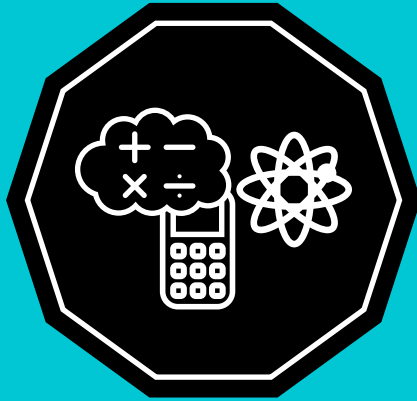
DATE FRIDAY 26 FEB	TIME(S) 6.30PM - 8PM
VENUE BELFAST CAMPUS, ULSTER UNIVERSITY, YORK STREET	SUITABILITY 16+
ADMISSION & BOOKING FREE BUT REGISTRATION IS REQUIRED VIA NISIENCEFESTIVAL.COM	

Living on the Planet of the Machines is a debate which aims to explore the impact and ethics of robotics on our daily lives.

We are increasingly adopting automatised technology that guides our finances, social interactions, movements and even international warfare. Should we be worried about robots taking over our decision making? What ethical guidelines should we follow when working with intelligent systems?

Join us with our panel of experts to debate future developments and challenges that we may face as we step further into a planet filled with machines. This event is sponsored by The British Science Association.





MATHS & PHYSICS

“Not only is the Universe stranger than we think,
it is stranger than we can think.”

- **Werner Heisenberg**



TIME TRAVEL

DATE	SATURDAY 20 FEB		TIME(S)	11AM - 3PM
VENUE	AMMA CENTRE, MARKETHOUSE, ARMAGH		SUITABILITY	ALL AGES
ADMISSION & BOOKING				
FREE BUT REGISTRATION IS ADVISED. BOOK VIA AMMACENTRE.ORG				

The possibility of time travel is something that has an on-going fascination for most people. To find out more about time and how it can be manipulated in the virtual world, come along to Time Travel at AmmA - an extra special day of activities where you will be able to participate in a range of workshops and view an interactive exhibition in the Centre.

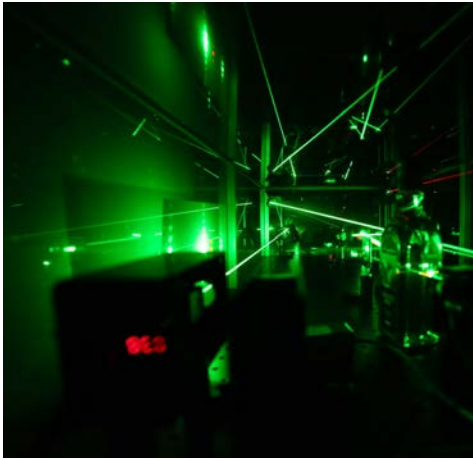
ammacentre
CREATIVE LEARNING CENTRE

THE WORLD'S FAVOURITE NUMBER & OTHER STORIES

with Alex Bellos

DATE	SUNDAY 28 FEB	TIME(S)	1.30PM - 2.30PM
VENUE	THE DARK HORSE, HILL ST, BELFAST	SUITABILITY	14+
ADMISSION & BOOKING			
£8/£5 CONCESSION. BOOK VIA NISIENCEFESTIVAL.COM			

Bestselling author, and Guardian journalist, Alex Bellos takes us on a journey of mathematical discovery with his signature wit and limitless enthusiasm. In this talk, Alex demonstrates how numbers have come to be our friends, how fascinating and extremely accessible they are, and how they have changed our world. You'll find out the results of his global survey to find the world's favourite number and learn how numbers influence us in surprising ways.



TOMORROW'S FUTURE TODAY

DATE ONGOING THROUGH- OUT THE FESTIVAL		TIME(S) 11AM - 5PM (CLOSED MONDAYS)
VENUE ULSTER MUSEUM, BOTANIC GARDENS, BELFAST		SUITABILITY ALL AGES
ADMISSION & BOOKING FREE DROP-IN EVENT		

Ever wondered how lasers can be used to drive the technologies of the future? How quantum physics can shape online security? The School of Mathematics and Physics will be in the Belfast Room at the Ulster Museum for the whole Festival to answer all your questions.

Fun, interactive displays will show cutting edge physics in action, including demonstrations of how the Northern Lights work and how magnetic levitation can be used for high speed trains. Young scientists will be on hand to demonstrate these topics and so much more. Be sure to visit this unique experience, where adults and children alike can learn how research by physicists at Queen's University, Belfast is playing a lead role in how our future world will look.



THE WONDERFUL WORLD OF LIEVEN SCHEIRE

DATE TUESDAY 23 FEB	TIME(S) 8PM - 9PM
VENUE BLACK BOX, HILL ST, BELFAST	SUITABILITY 18+
ADMISSION & BOOKING £8/£5 CONCESSION. BOOK VIA NISCIENCEFESTIVAL.COM	

If nerds are the new hunks then the charming Lieven Scheire was set to win heads and hearts with his unique non-fiction stand-up. Scheire takes little concepts like, oh you know, Albert Einstein's Theory of Relativity and explains them in a way that is not only accessible but also hilarious. If science lessons back at school had been more like this maybe we would have all paid more attention and be six times smarter now.

Lieven is a big deal in his native Belgium - he's the nation's 'Science Communicator' and his TV science-show Scheire's Barn is being broadcast on VRT, Belgium's national broadcaster. He is also a weekly guest on popular Dutch TV show Guinea Pigs. BBC's QI team are fans, having twice invited him to the No Such Thing As A Fish podcast with the QI-elves.



HOW DO YOU SOLVE A PROBLEM LIKE NUCLEAR POWER?

DATE TUESDAY 23 FEB	TIME(S) 6.30PM
VENUE ULSTER MUSEUM, BOTANIC GARDENS, BELFAST	SUITABILITY 16+
ADMISSION & BOOKING FREE. REGISTRATION IS ADVISED VIA NISCIENCEFESTIVAL.COM	

Fusion energy has the potential to be one of the most important scientific breakthroughs. Physicist and Rosalind Franklin Award winner Ian Chapman explores the challenges in nuclear fusion and explains how the international ITER project is combating them. Take control as Ian allows you, the audience, to choose the path of his talk.

This event is supported by the British Science Association.



PHYSICS BUSKING

DATE SUNDAY 21 FEB	TIME(S) 11AM - 3PM
VENUE ST GEORGE'S MARKET, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE DROP-IN EVENT	

Come along to St George's Market and be entertained by some of the best Physics Busking in the Universe. Be amazed by sights and tricks, using everyday objects to open up a new world of curiosity and understanding.

The Institute of Physics team invites you into a realm of invisible forces and remarkable matter. You are encouraged to play along and join in the unstoppably infectious physics fun!

IOP | Institute of Physics
In Ireland



FOOD FOR THOUGHT

“The kitchen is a laboratory, and everything that happens there has to do with science. It’s biology, chemistry, physics. Yes, there’s history. Yes, there’s artistry. Yes, to all of that. But what happened there, what actually happens to the food is all science.”

- **Alton Brown**



THE HUNGRY GAMES

DATE SATURDAY 27 - SUNDAY 28 FEB	TIME(S) 10AM - 3PM SAT 10AM - 4PM SUN
VENUE ST GEORGE'S MARKET, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE DROP-IN EVENT	

Join us for foodie fun and find how healthy diets can be good for both us and our planet. With live cooking demos, hands on activities, games, quizzes and more, you'll love The Hungry Games, whatever your age (and tastes!).

Play our exciting card games to discover more about nutrients in the foods we eat and the impact our diets might have on the environment. Design your own plate of food to take home - how many nutrients can you fit on your plate? With drop in activities all day, plus regular cooking demonstrations and tasting sessions, our resident chefs will create healthy, delicious dishes from food that would otherwise go to waste.



GULP - THE SCIENCE OF FOOD

DATE SUNDAY 28 FEB	TIME(S) 8PM - 10PM
VENUE CRESCENT ARTS CENTRE, UNIVERSITY RD, BELFAST	SUITABILITY 16+
ADMISSION & BOOKING £12.50. BOOK VIA NISCIENCEFESTIVAL.COM	

A two-man live show looking at the science and culture of food, GULP! is presented by award-winning science broadcaster Jonathan McCrea (RTE/Newstalk) and Dalkey Food Company geek chef Ivan Varian.

Sample a 9-course meal on stage and explore the countless factors that affect how we enjoy our food, from how our eyes and nose deceive us to how our genetics divide us into tasters and supertasters.

Try centipedes and waterbugs, pig brains, 100-year-old eggs and antifood as we look at the future of food in 2050. Bite into raw lemons and enjoy dry Ice cream and 'Ghost Chili' flavoured chocolate for dessert. Prepare for a meal you'll never forget.



SUSTAINABLE GASTRONOMY

DATE THURSDAY 25 FEB	TIME(S) 7.30PM - 10.30PM
VENUE MERCHANT HOTEL, SKIPPER ST, BELFAST	SUITABILITY 18+
ADMISSION & BOOKING £38 (6 COURSE MEAL INCLUDED IN PRICE). BOOK VIA NISCIENCEFESTIVAL.COM	

Food sustainability is a wide topic. We impact it by what we eat but greatly by what we don't. So much of our food is produced but never eaten, 1.3 billion tonnes globally. The doctrine of organic is quickly being eclipsed by the need for sustainable intensification.

During this special event, the highly acclaimed chefs from the Merchant Hotel Belfast plan to explore the issues through six courses with every part of each ingredient being used to its maximum potential. Each course will stem from one specific ingredient with a strong influence of what we believe to be sustainable sources.

You will also hear from local food expert Chris Elliott on the global context of food security, safety and sustainability. Chris is the Director of the Institute for Global Food Safety and Pro Vice Chancellor at Queen's University Belfast.



SYNAESTHESIA COCKTAIL NIGHT

DATE SATURDAY 20 FEB	TIME(S) 8PM - 10.30PM
VENUE BLACK BOX, HILL ST, BELFAST	SUITABILITY 18+
ADMISSION & BOOKING £18. BOOK VIA NISCIENCEFESTIVAL.COM	

Can you taste colour? Join us for the Synaesthesia Cocktails night and find out how astute your senses really are. Do you match everyone else's taste - or are you a colour contrarian?

Having taken away all clues about colour and ingredients, we'll be conducting a live psychology experiment with 7 delicious cocktails in shot form (your choice whether to politely sip or neck 'em) and testing the audiences colour-taste association, to see what associative trends emerge.

We'll also hear from a real-life synaesthete and learn about the psychology and neuroscience that causes synaesthesia.

Synaesthesia Cocktails is brought to you by Art Neuro, a team of scientists looking at neuroscience in a new light, exploring everything to do with the brain through art, craft, design and in this case cocktails.

EXPLODING CUSTARD!

DATE SATURDAY 27 FEB	TIME(S) VARIOUS
VENUE EBRINGTON SQUARE, DERRY/LON- DONDERRY	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE. FOR REGISTRATION AND FURTHER INFORMATION PLEASE VISIT SCINNOVATE.CO	

The Experimental Kitchen in Derry will open the door to the science of food and teach some neat cooking tricks on the way. This project will look at experiments with thickening, fixing, gelling and molecular cooking - employing techniques such as air and foam.

Experiments on multi-sensory cooking, including sounds of food and other experiments, will show that the appreciation of food is determined by the breadth of information sent to the brain.



Derry City & Strabane
District Council
Comhairle
Chathair Dhoire &
Cheantar an tSrátha Báin
Derry Citty & Strabane
Districck Council



WHAT THEY ATE! LOOKING AT DIETS IN THE PAST

DATE SATURDAY 27 FEB	TIME(S) 2PM - 3.30PM
VENUE ARCHAEOLOGY TEACHING LAB (G43), ARCHAEOLOGY-PALAEOECOLOGY BUILDING, FITZWILLIAM STREET, BELFAST	SUITABILITY KIDS & PARENTS
ADMISSION & BOOKING FREE. REGISTRATION IS REQUIRED VIA NISCIENCEFESTIVAL.COM	

How do we know what people ate in the past? Archaeologists have to draw on many scientific skills to identify and study the remains of plants and animals eaten by earlier peoples.

In this workshop, you can try out these skills yourself! You'll be asked to sieve through soil samples to find the remains of plants and animals and use your botanical and zoological skills to find out what foods the remains come from by examining them under a microscope. Using your analytical skills, will you be able to work out who was hunting and gathering wild foods, and who was farming?

THE GREAT SCIENCE BAKE OFF

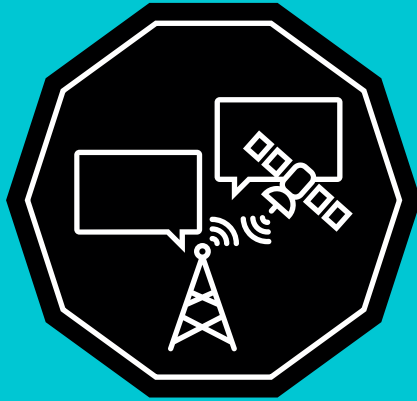
Belfast Science Café

DATE TUESDAY 23 FEB	TIME(S) 6.30PM - 8PM
VENUE DARK HORSE, HILL ST, BELFAST	SUITABILITY 18+
ADMISSION & BOOKING FREE. REGISTRATION IS ADVISABLE VIA NISCIENCEFESTIVAL.COM. PLEASE EMAIL VICTORIA SIMMS VIA V.SIMMS@ULSTER.AC.UK IF YOU WOULD LIKE TO ENTER YOUR SCIENCE THEMED CAKE INTO OUR COMPETITION	

Join the Belfast Science Café for their 'Great Science Bake Off'. Bring along a science themed cake to enter our competition. There will be prizes but a lucrative cook book deal cannot be guaranteed!

Even if you aren't a baker, please still come along and hear Triona O'Connell (Dublin City University) talk about the science of baking. In the normal style of our monthly event there will be plenty of time for questions (and for this month only, quite a bit of cake!).





SCIENCE COMMUNICATION

“If you can’t explain it simply, you don’t
understand it well enough.”

- **Albert Einstein**



BRIGHT CLUB BELFAST

DATE THURSDAY 18 FEB	TIME(S) 8PM - 10PM (DOORS AT 7.30PM)
VENUE BLACK BOX, HILL ST, BELFAST	SUITABILITY 18+
ADMISSION & BOOKING £5. BOOK VIA NISCIENCEFESTIVAL.COM	

Returning to the Science Festival for a second year. Where curiosity meets comedy and genius is born, Bright Club is a thinking person's comedy night. It started as an experiment bringing together local comedians with the fascinating minds of people working in Northern Ireland's universities. See what happens when we combine them, on stage, in front of an attractive and inquisitive audience and within reach of a pint glass.



CELEBRATING SCIENCE AT QUEEN'S

DATE THURSDAY 18 FEB	TIME(S) 5PM - 7.30PM
VENUE RIDDEL HALL, 185 STRANMILLIS RD, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE DROP-IN EVENT	

Come along and get a taste of the world-leading scientific research being carried out at Queen's University. From aerospace engineers designing new aircraft to astrophysicists searching for distant supernovas, and from Global Food Security researchers safeguarding our food supply to medical teams making breakthroughs in treating diseases and personalising medicine - Queen's scientists, engineers and researchers are advancing knowledge and changing lives every day.

As part of a Research Impact Series of events organised by the Queen's Research and Enterprise Directorate, Queen's is inviting all members of the public to come along to this special NI Science Festival showcase to meet some of the brightest minds of today. As well as chatting to visitors from individual stands about their work, four scientists will also give short presentations on their research and the benefits it is bringing.



SCICOMM CABARET

DATE	TIME(S)
WEDNESDAY 24 FEB	7.30PM - 10.00PM
VENUE	SUITABILITY
BLACK BOX, HILL ST, BELFAST	18+
ADMISSION & BOOKING	
£5. BOOKING IS REQUIRED VIA NISCIENCEFESTIVAL.COM	

British Council Northern Ireland and the NI Science Festival present a special evening of quick fire presentations, new ideas and unconventional thoughts featuring some of our most prominent and brilliant names in science communication.

Join mentalist David Meade and former FameLab finalists as they engage in a wide variety of fascinating scientific topics in a unique cabaret setting, inside Belfast's Black Box, which is sure to inspire the minds of everyone in attendance.

The SciComm Cabaret aims to highlight the significant role that Science, Technology, Engineering and Mathematics (STEM) play in our everyday lives.

●● **BRITISH COUNCIL**
●● Northern Ireland



SCIENCE COMMUNICATION BOOT CAMP

DATE	TIME(S)
FRIDAY 26 FEB	10AM - 2PM
VENUE	SUITABILITY
BLACK BOX, HILL ST, BELFAST	18+
ADMISSION & BOOKING	
£15. BOOK VIA NISCIENCEFESTIVAL.COM	

Scientists and engineers are often asked to relate their research and findings to a lay audience. But whether it's talking to the media or members of the public, conveying complex research into a digestible form can be a tricky business.

Join professional science communicators Malcolm Love and Sue McGrath (aka Scientific Sue) for a special boot camp specifically designed for those working directly in science. This course will equip you with the basic skills for 'being on your feet' in front of live audiences and for giving an effective media interview. We will look at key issues such as body language, creating material and the art of story telling. There will also be plenty of top tips gleaned from great communicators.

This event is generously supported by the British Council.

●● **BRITISH COUNCIL**
●● Northern Ireland

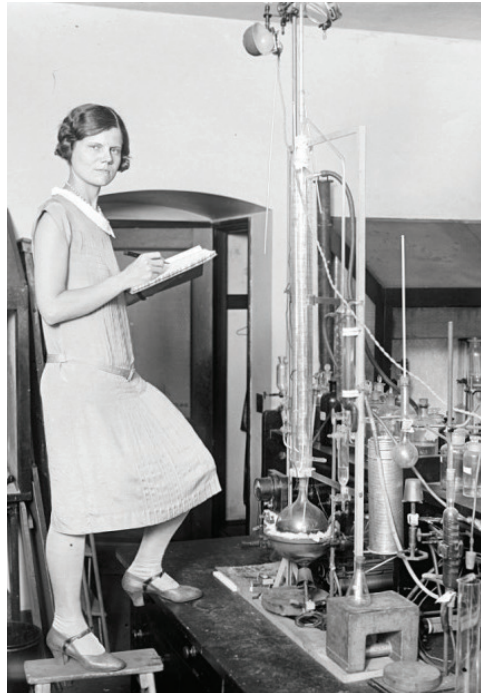


TALES OF THE UNEXPECTED

DATE	TIME(S)
SATURDAY 27 FEB	8PM - 10PM
VENUE	SUITABILITY
BLACK BOX, HILL ST, BELFAST	18+
ADMISSION & BOOKING	
£8. BOOK VIA NISCIENCEFESTIVAL.COM	

Join award-winning broadcaster and journalist Jonathan McCrea from Newstalk's Futureproof and RTE 1's The Science Squad for an evening of storytelling. Sit back and enjoy a curated collection of award-winning science-themed short films, animations and radio pieces. The programme will be followed by a Q&A session.

Jonathan is the founder of Whipsmart Media, a science and technology communications company that provides media training and consultancy to the STEM sector. He has presented for RTE, Newstalk and Spin 1038. He also is the resident tech expert on The Right Hook on Newstalk 106-108.



TENX9 - BACK TO THE FUTURE

DATE	TIME(S)
SUNDAY 21 FEB	7PM - 9PM
VENUE	SUITABILITY
BLACK BOX, HILL ST, BELFAST	18+
ADMISSION & BOOKING	
FREE. REGISTRATION IS REQUIRED VIA NISCIENCEFESTIVAL.COM	

Tenx9 is a storytelling event where 9 people have up to ten minutes each to tell a real story from their lives. Come hear 9 true stories from and about scientists.

We will hear about science from women and men who are scientists, we'll hear about science gone wrong and science gone right, science at home and science at work. Hear the true stories from the people who make the future happen now.



SCIENCE ACCORDING TO ADVENTURE TIME

DATE SATURDAY 20 FEB	TIME(S) 3.30PM
VENUE STRANDS ARTS CENTRE, HOLYWOOD RD, BELFAST	SUITABILITY KIDS & PARENTS
ADMISSION & BOOKING £5. BOOKING RECOMMENDED VIA STRANDARTSCENTRE.COM	

Illustrated Talk with footage from Adventure Time showcasing their Scientific exploits. Adventure Time is award winning animated American TV series with cult following. An eclectic mixture of characters who champion the role of science during their crazy adventures.

After the talk a special animation with Adventure Time characters will be created. All adventurers, scientists and princesses welcome.



SCIENTIST'S SCI-FI CHOICE

DATE FRI 19, SAT 20, FRI 26 & SAT 27 FEB	TIME(S) FRIDAYS 4.15PM SATURDAYS 12NOON
VENUE STRANDS ARTS CENTRE, HOLYWOOD RD, BELFAST	SUITABILITY KIDS & PARENTS, ADULTS
ADMISSION & BOOKING FREE. BOOKING RECOMMENDED AT STRANDARTSCENTRE.COM	

As part of the Strand's free educational film clubs, we're going Scientific! These clubs are run weekly and are open to anyone, no sign-up/commitment/ payment is needed.

Four top Sci-Fi films chosen by scientists and introduced by scientists. Points of discussion may include whether science fiction inspires science or vice versa, what is possible now and what might be in the future.

Friday 19, 4.15pm

Teenage Kicks Club: The Matrix, 1999 (15)

Saturday 20, 12noon

Minors Club: Wall-E, 2008 (U)

Friday 26, 4.15pm

Teenage Kicks Club: Bladerunner, 1982 (15)

Saturday 27, 12noon

Minors Club: Jurassic Park, 1993 (PG)

**INTO
FILM**

STRAND
ARTS CENTRE



ELEPHANT'S TOOTHPASTE & DEAF SCIENTISTS OF THE PAST

DATE SUNDAY 21 FEB	TIME(S) 2PM & 4PM
VENUE W5, ODYSSEY ARENA, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE. REGISTRATION IS ADVISABLE VIA NISCIENCEFESTIVAL.COM	

Elephant's Toothpaste Show in British Sign Language

Dr Audrey Cameron and Gary Quinn are Brainy and Brawny as they demonstrate science experiments in British Sign Language. Join them to discover exploding pop rockets, how to make elephant's toothpaste and other magic in a special interpreted event accessible to everyone.

Deaf scientists of the Past in British Sign Language

A BSL-interpreted event where all will be invited to go on a time machine to meet famous scientists of the past! Exploding rockets and comets will be included!

This event is kindly supported by the British Deaf Association.



MENSA MAGNIFICENT MONDAY QUIZ

DATE MONDAY 22 FEB	TIME(S) 7.30PM - 10.30PM
VENUE BLACK BOX, HILL ST, BELFAST	SUITABILITY 18+
ADMISSION & BOOKING £2 PER PERSON	

Monday night blues? We have the solution! Come along to The Black Box for a light-hearted team quiz devised by Mensa, incorporating science, technology, engineering and a bit of general knowledge. Whether your scientific knowledge is pre-school or post-uni, grab a few friends and come on down to the Black Box for the craic! You might even win a prize. Teams of up to six people welcome.



ART & SCIENCE

“To develop a complete mind: Study the science of art. Study the art of science. Develop your senses, learn how to see. Realise that everything connects to everything else.”

- **Leonardo da Vinci**



SMART LISTENING

How we listen with our digital devices

DATE SATURDAY 27 FEB	TIME(S) 11AM - 1PM EDUCATORS 2PM - 4PM KIDS & PARENTS
VENUE SONIC ARTS RESEARCH CENTRE, CLOREEN PARK, BELFAST	SUITABILITY KIDS & PARENTS / EDUCATORS
ADMISSION & BOOKING FREE BUT REGISTRATION IS REQUIRED VIA NISCIENCEFESTIVAL.COM	

We invite you to join us in an exploration of how we listen to and with our smartphones! A new app developed at SARC will be used as a platform for discovering ways of listening that encourage creative participation and collaboration.

We invite you to listen to the world around you and to sounds of other participants, asking you to think about the role that sound plays in our everyday life. A professional theatre facilitator will join us in creating a short piece that is built around the idea of listening to people in different locations (we call this 'distributed listening').

Developed with support from the Arts and Humanities Research Council in a project led by Franziska Schroeder and Pedro Rebelo partnered by the Lyric Theatre, Belfast, 42nd Street in Manchester, a mental health charity and the Young Vic in London.



ALICE CLARK EXHIBITION

AFBI's Artist-at-Sea

DATE ONGOING THROUGH- OUT THE FESTIVAL	TIME(S) 10AM - 5PM
VENUE GALLEY CAFÉ @ TITANIC BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE DROP-IN EXHIBITION	

Northern Ireland's Agri-Food and Bioscience Institute (AFBI), in conjunction with Catalyst Arts, commissioned artist Alice Clark to create work based on her experiences on-board the oceanographic ship Corystes. Alice was the first artist to be appointed under the new Artist-at-Sea residency programme.

Alice's experience has resulted in several pieces influenced by the scientific work, scientists and crew on-board the vessel, and by the movement and fluidity of the ocean. These pieces, along with the sketches, photos, blog and other materials which were created during the project, will be on display in the Galley Café at Titanic Belfast throughout NI Science Festival.





THE SCIENCE OF PHOTOGRAPHY

Titanic Taster Tour

DATE SATURDAY 27 FEB	TIME(S) 10.30AM - 1.30PM
VENUE TOUR STARTS AT FRONT OF TITANIC BELFAST BUILDING	SUITABILITY 16+
ADMISSION & BOOKING £20. FOR BOOKING DETAILS PLEASE EMAIL INFO@TITANIC-FOUNDATION.ORG	

Become a Titanic inspired photographer for the day, learning all about the science behind photography. Photography is the physics of light: light temperature/colour (developed by Lord Kelvin who was born in Belfast) and the science of time and exposure.

Visitors will also get the opportunity to explore Titanic Quarter's Maritime Heritage. On the interactive tour you will be transported around the quarter on the Wee Tram. Hop off stops will include the historic Slipways, Titanic's Dock & Pump-House, Samson & Goliath cranes.

Includes lunch stop at Titanic's Dock and Pump-House.



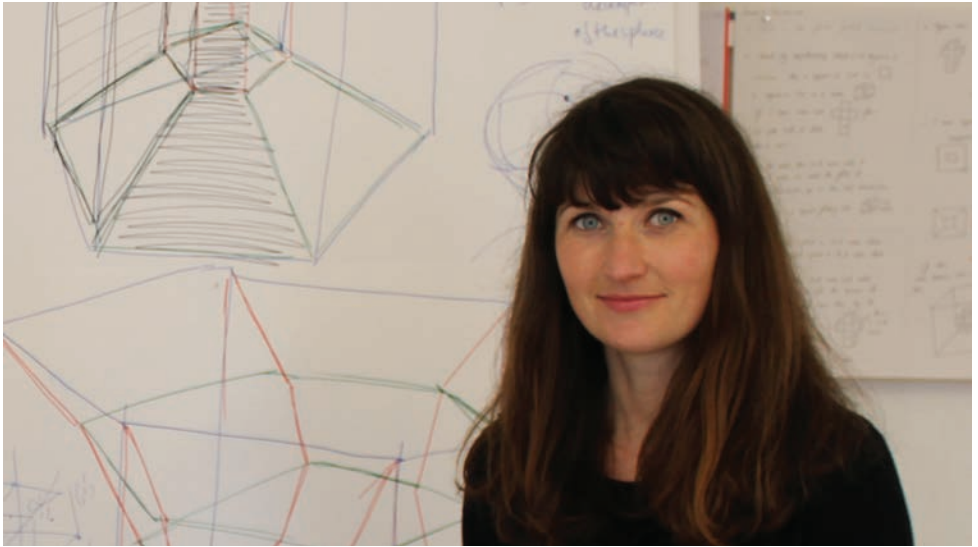
IDIR IARRACHT IS TEIP

Between Attempt and Failure

DATE THURSDAY 25 FEB	TIME(S) 8PM - 9PM
VENUE GERARD DILLON GALLERY, AN CHULTURLANN, FALLS RD, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE. BOOK VIA CULTURLANN.IE	

Sa léacht seo tugann Aisling O'Beirn léargas ar an dtionchar atá ag eolaíoch, fisic agus mata go h-áirithe, ar a cuid ealaíon. Ina saothar is déanaí a bheidh ar thaispeáint i nDánlann Dillon idir 21 Eanáir agus 18 Márta, tá sí ag féachaint ar conas mar ar deineadh míthomhas ar chaithnín ag taisteal agus de réir an toradh, bhí sé ag taisteal níos tapúla ná luas an tsolais.

In this lecture installation artist Aisling O'Beirn gives an insight into the influence of maths, physics and science in general has on her art. In her latest exhibition, to be on show at the Cultúrlann's Gerard Dillon Gallery, she explores the recent anomaly discovered when a neutrino particle was thought to have been measured as travelling at faster than the speed of light.



ARTIST-IN-RESIDENCE GEMMA ANDERSON

DATE OPENING NIGHT: THURSDAY 18 FEB RUNS THU 18 FEB - SUN 6 MAR	TIME(S) OPENING NIGHT: 6PM - 8PM GALLERY OPEN: 11AM - 4PM TUE - SUN
VENUE THE NAUGHTON GALLERY, QUEEN'S UNIVERSITY BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE. REGISTRATION IS ADVISABLE VIA NISCIENCEFESTIVAL.COM	

Linkages between art and science are proliferating with organisations such as CERN, Google and the Wellcome Trust developing innovative arts & science collaborations. These collaborations are founded on the fact that not only can artists serve as great partners in the communication of scientific research; they can also serve as great partners in the navigation of the scientific unknown.

The NI Science Festival is delighted to announce its first ever Artist-in-Residence, Gemma Anderson. Gemma who is originally from Belfast and now based in Cornwall has exhibited with Imperial College London, the Jerwood Foundation, the Victoria and Albert Museum and the Xi'an Academy of Fine Art in China.

Gemma will exhibit works at the Naughton Gallery at Queen's University and delivers workshops and talks discussing the connections her work makes to Palaeontology, Zoology, Geology and the Natural Sciences. During Gemma's residency she will also spend time working with the archive collections at Queens University and the Ulster Museum. The exhibition is created in partnership with the British Council and runs through until Sunday 6 March.



ISOMORPHOLOGY DRAWING WORKSHOPS

Exploring the shared forms and symmetries of animal, mineral and vegetable species through drawing.

DATE SAT 20 FEB	TIME(S) 11AM - 1PM
VENUE THE NAUGHTON GALLERY, QUEEN'S UNIVERSITY BELFAST	SUITABILITY 16+
ADMISSION & BOOKING FREE. REGISTRATION REQUIRED VIA NISCIENCEFESTIVAL.COM	

Combining artistic and scientific methodologies, this workshop explores the shared forms and symmetries of animal, mineral and plant specimens through drawing practice. Practiced in the gallery this workshop uses artworks and Anderson's curated 'Isomorphology cabinet' of museum specimens as source material. This is a rare opportunity to get hands on experience of the Ulster Museum collections and to gain insight into the diversity of natural form through drawing.

Simulating organic growth and morphogenesis through observational and algorithm-based drawing.

DATE SUN 21 FEB	TIME(S) 1PM - 3PM
VENUE THE NAUGHTON GALLERY, QUEEN'S UNIVERSITY BELFAST	SUITABILITY 16+
ADMISSION & BOOKING FREE. REGISTRATION REQUIRED VIA NISCIENCEFESTIVAL.COM	

Combining artistic and scientific methodologies, 'Isomorphogenesis' is an extended Organic Systems drawing process, which relates directly to Natural Form. In this workshop Anderson shares this experimental drawing method, which performs an analogue to morphogenesis. Practiced in the gallery this workshop uses artworks and museum specimens as source material and is a rare opportunity to get hands on experience of the Ulster Museum collections and to gain insight into evolutionary processes through drawing.



[HE]ARTS OF STEM

Celebrating ideas and creativity at the intersection between arts and technology

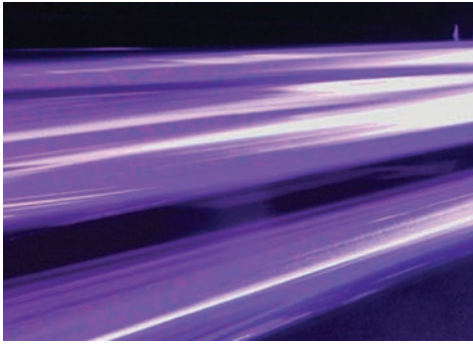
DATE WEDNESDAY 24 FEB	TIME(S) 1.15PM - 6PM	DATE FRIDAY 26 FEB	TIME(S) 10AM - 5PM
VENUE BELFAST CAMPUS, ULSTER UNIVERSITY		VENUE GREAT HALL, ULSTER UNIVERSITY, MAGEE CAMPUS & THE FABLAB, NERVE CENTRE, DERRY/LONDONDERRY	
SUITABILITY ADULTS, SCHOOLS & EDUCATORS			
ADMISSION & BOOKING FREE. REGISTRATION IS REQUIRED VIA NISCIENCEFESTIVAL.COM			

HEARTS of STEM is a new initiative of Ulster University's Research Graduate School (Faculty of Arts) and the School of Creative Arts and Technologies, in association with FabLab NI and the Irish Sound, Science and Technology Association.

Through events in Belfast and Derry/Londonderry, Hearts of STEM will present talks, demonstrations and creative exhibits highlighting how the arts and technology are intersecting in the early 21st century. Topics will include:

- Accessible Design
- Open Culture, Open Technologies
- Does an Arts/STEM divide really exist?
- Making a Difference: the social impact of 3D printing
- Technology and Creative Arts
- Digital Humanities

Further information can be found at heartsofstem.com. HEARTS of STEM is supported by the Higher Education Innovation Fund.



POWER IN MOTION WORKSHOPS + EXHIBITION

DATE THURSDAY 18 & MONDAY 22 FEB	TIME(S) 6.30PM - 9.30PM
VENUE BELFAST EXPOSED GALLERY, DONEGAL ST, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING £20. BOOKING IS ESSENTIAL VIA NISCIENCEFESTIVAL.COM	

Working with participants looking at how we capture movement in Digital Photography bringing in the creative science of Slow Sync imagery. The exciting workshop captures the movement of Belfast by photography using painting with light and the elements of science used in digital photography.

Exploring North, South, East and West Belfast, we will create a photographic map of the city looking at the grace of movement and the technology in photography to capture this through slow shutter speeds and slow sync flash.

North & West: Thursday 18 February
East & South: Monday 22 February

The workshops will create an exhibition of images to be held in Belfast Exposed Studio Gallery between 27 and 28 Feb

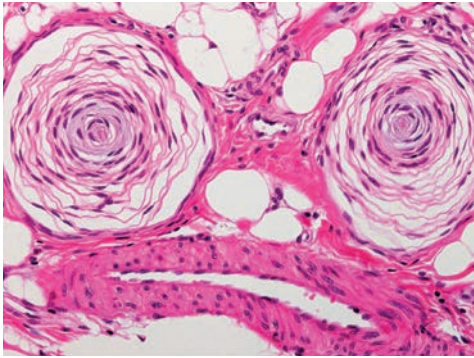


BRICK WONDERS EXHIBITION

DATE 2 FEB TO 6 MAY 2016	TIME(S) VARIOUS. CHECK SCINNOVATE. CO FOR MORE DETAILS
VENUE NERVE CENTRE, 7-8 MAGAZINE ST, DERRY	SUITABILITY ALL AGES
ADMISSION & BOOKING TBC	

The amazing Brick Wonders exhibition will be coming to Derry, the first time ever in the island of Ireland. Using LEGO® bricks, artist Warren Elsmore creates stunning scenes with easy-to-follow instructions. Designed with only standard LEGO pieces, Warren's talent lies in choosing exactly the right parts to enable the reader to recreate these icons of history in their own home. Brick Wonders also takes a look at new wonders of the world; treasures from the past millennium that remain standing today. We will have specialised workshops throughout the duration of the exhibition, further details can be found on our website closer to the date scinnovate.co





INTERNATIONAL IMAGES OF SCIENCE EXHIBITION

DATE ONGOING THROUGH- OUT THE FESTIVAL	TIME(S) 9AM - 5PM
VENUE MILLENNIUM FORUM, 6 NEWMARKET ST, DERRY/ LONDONDERRY	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE DROP-IN EVENT	

The 2016 International Images for Science exhibition features an extraordinary variety of images – from highly technical to highly conceptual, from entrants who are imaging professionals to those who are enthusiastic amateurs, showing subjects from the scale of atoms to the scale of the Universe. The exhibition showcases intriguing and awe-inspiring imagery, revealing the diverse ways in which photography records, documents and communicates modern science, often with images captured with types of light that are beyond human vision. Supported by Siemens.

RECORDING 'THE RACE FOR SPACE' ALBUM

A Faculty Lecture

DATE WEDNESDAY 24 FEB	TIME(S) 8PM - 9PM
VENUE SONIC ARTS RESEARCH CENTRE, CLOREEN PARK, BELFAST	SUITABILITY 16+
ADMISSION & BOOKING £10. BOOK VIA NISCIENCEFESTIVAL.COM	

Seedhead Arts & the NI Science Festival are delighted to welcome J. Willgoose, Esq, the brains behind Public Service Broadcasting, to the festival for a one-off lecture and Q&A on the making of their cosmic 2015 album 'The Race for Space'.

Part historical document, part immersive soundscape and part nerd disco, The Race For Space weaves samples of news reels and recordings from the Sputnik and Apollo missions to retell the story of the American and Soviet space race from 1957-1972 across a nine track album.

J. Willgoose, Esq. will join us for a chat about the process of researching the work, sourcing and licensing the material used, and finally creating the album itself.



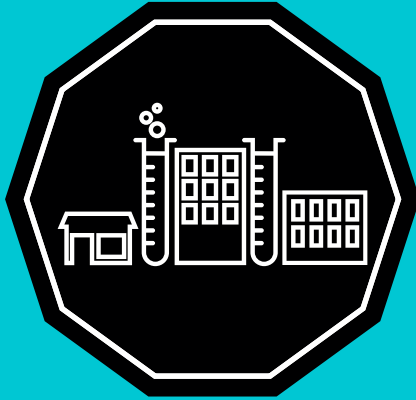
Derry City & Strabane
District Council
Comhairle
Chathair Dhoire &
Cheantar an tSrátha Báin
Derry Citty & Strabane
District Council



INTERNATIONAL
IMAGES
FOR SCIENCE
2015
AN EXHIBITION OF THE WORLD'S BEST
SCIENTIFIC PHOTOGRAPHY



THE RPS
ROYAL PHOTOGRAPHIC
SOCIETY



SCIENCE IN SOCIETY

“We live in a society exquisitely dependent on science and technology, in which hardly anyone knows anything about science and technology.”

- **Carl Sagan**

FROM RATIONING TO OBESITY

A Lecture by Prof Mike Gibney

DATE THURSDAY 18 FEB	TIME(S) 7.30PM - 9PM
VENUE SOMME CENTRE, 233 BANGOR RD, NEWTOWNARDS	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE. PLEASE CONTACT THE SOMME MUSEUM DIRECTLY ON 028 9182 3202 TO BOOK A PLACE. EARLY BOOKERS WILL BE ABLE TO ARRANGE A TOUR OF THE MUSEUM FROM 6.30PM BUT PLACES ARE STRICTLY LIMITED TO 20.	

The experience of dried eggs, limited sugar and glee over a little real butter are fading memories. For most of us ration cards were found in parental roof spaces or seen in a museum. Was that war time diet calculated precisely to ensure maximum fitness with minimum requirements? Is it romanticism to believe that diet was healthier than today's plentiful supply of palatable, convenient and clean food? Professor Gibney will address this question and tell us how modern nutrition science can help us with current health concerns.



Institute of
Food Science
+ Technology **ifst**

BIG DATA

What Big Datasets Can Tell Us About Population Change & Health in Northern Ireland

DATE FRIDAY 26 FEB	TIME(S) 12PM - 2PM
VENUE 20 COLLEGE GREEN, QUEEN'S UNIVERSITY, BELFAST	SUITABILITY 18+
ADMISSION & BOOKING FREE BUT REGISTRATION REQUIRED VIA NISCIENCEFESTIVAL.COM	

There has been hype in the media over Big Data, but what do we really know about how large population data is used scientifically? This event introduces how demographers and geographers use population data to answer questions about how people live and how life circumstances change over time. We introduce two major data sources, the Northern Ireland Longitudinal Study, which is the largest representative longitudinal population study existing in the UK and large, unique health data from the Business Services Organisation (BSO).

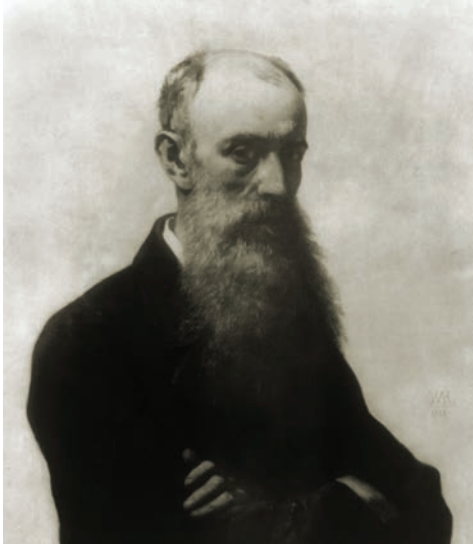


FROM THE COSMOS TO THE CITY

The Geographies of Scientific Knowledge

DATE THURSDAY 25 FEB	TIME(S) 7PM - 8.30PM
VENUE ULSTER MUSEUM, BOTANIC GARDENS, BELFAST	SUITABILITY 16+
ADMISSION & BOOKING FREE. REGISTRATION IS ADVISED VIA NISCIENCEFESTIVAL.COM	

Science has a geography as well as a history. Where and when scientific enquiry takes place influences the types of science produced and how it is received by popular and professional audiences. From glasshouses to galaxies and from Darwin to the Ulster Museum, science never exists in a cultural or historical vacuum. In this set of short talks we explore how Belfast, as well as other cities, were sites for scientific debate, display and at times, discord.



THE POET & THE POISON

William Morris & Arsenic

DATE SUNDAY 21 FEB	TIME(S) 3PM - 5PM
VENUE ULSTER MUSEUM, BOTANIC GARDENS, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE. REGISTRATION IS ADVISED VIA NISIENCEFESTIVAL.COM	

This is a popular science lecture on how the life of the poet and designer, William Morris, was linked to one of the most notorious poisons, Arsenic. Morris, a proto-environmentalist, was made immensely rich through shares in the world's largest arsenic mine. The Mine in question was portrayed as 'hell' in a Trollope novel. He used the arsenic from that mine in his interior decor designs, including his famous wallpapers, which introduced the poison into the home.

This lecture illustrates how common arsenic poisoning was found in the Victorian home with relevant 19th century artefacts.



HOW TO SURVIVE AN APOCALYPSE

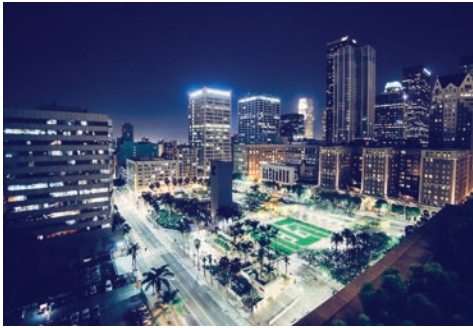
DATE SATURDAY 20 FEB	TIME(S) 3PM - 6PM
VENUE DAVID KEIR BUILDING, STRANMILLIS ROAD, BELFAST	SUITABILITY KIDS & PARENTS
ADMISSION & BOOKING £3. BOOK VIA NISIENCEFESTIVAL.COM	

What would happen if an asteroid hit the earth, or zombies took over? If you are one of the lucky survivors, the next challenge is re-building civilisation. Physics, Geography, Engineering and Psychology hold the key...

Together, we will teach you some of the important skills needed to get you back on your feet and re-shape the world. You will work in teams to build roads and bridges, design alternative energy systems, build communities and much more.

Costumes are optional - there will be a prize for the best post-apocalyptic survivor. Do wrap up warm though, as we will be outside for part of the afternoon.





HOW SMART IS YOUR CITY?

DATE TUESDAY 23 FEB	TIME(S) 6PM - 8PM	
VENUE THE MAC, EXCHANGE STREET WEST, BELFAST	SUITABILITY 18+	
ADMISSION & BOOKING FREE: REGISTRATION IS REQUIRED VIA NISCENCEFESTIVAL.COM		

Cities are all about people. We give cities their pulse – we live and work in them, explore and develop them. It's no wonder that half the world lives in cities. In the UK, 90% of the population is expected to live in cities by 2050. With this rapid urbanisation, how can we ensure that our cities become better places to live and work?

How smart is your city? will look at how science and engineering are being used to improve our homes, workplaces, communications, water supply, energy, public transport and amenities. This exciting event will give you the opportunity to hear from experts and put your questions to them.

Follow the conversation at [#iwantacitythat](https://twitter.com/iwantacitythat).

ice
Institution of Civil Engineers

ASK FOR EVIDENCE

with Sense About Science

DATE SUNDAY 21 FEB	TIME(S) 8PM - 10PM	
VENUE SUNFLOWER BAR, UNION ST, BELFAST	SUITABILITY 18+	
ADMISSION & BOOKING £3. BOOK VIA NISCENCEFESTIVAL.COM		

Every day, we hear claims about what is good for our health, bad for the environment etc. Some are evidence based, some not. Debunking these claims is like a game of whack-a-mole. How can we make organizations accountable for these claims? We need to Ask for Evidence.

Our campaign Asks for Evidence on a variety of issues from retailers selling MRSA resistant pyjamas to health department prescribing Viagra, and hundreds more. As a result, claims are withdrawn and bodies held to account.

We are geeks, parking our tanks on the lawn of those who seek to influence us. And it's starting to work. Come and hear what the campaign is going to do next and how you can get involved.



EARTH & ELEMENTS

"I still have a vivid memory of my excitement when I first saw a chart of the periodic table of elements. The order in the universe seemed miraculous."

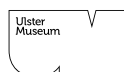
- **Joseph Murray**



ERUPTIONS, EARTHQUAKES AND EARTH SCIENCE DAY

DATE SATURDAY 27 FEB	TIME(S) 11AM - 4PM
VENUE ULSTER MUSEUM, BOTANIC GARDENS, BELFAST	SUITABILITY KIDS AND PARENTS
ADMISSION & BOOKING FREE DROP-IN EVENT	

Join some of Northern Ireland's geologists at the Ulster Museum to discover how party poppers can help us understand earthquakes, and how the fizziness of lava causes volcanic eruptions. See a real seismometer in action detecting earthquakes and take the opportunity to handle some of the fabulous fossils and marvellous minerals from the Museum's collections. You can even make your own fossil plaster cast to take away.



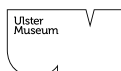
explore/engage/enjoy

BEAUTIFUL MOLECULES

The Architecture of the Elements

DATE THURSDAY 18 FEB	TIME(S) 7.30PM - 9PM
VENUE ULSTER MUSEUM, BOTANIC GARDENS, BELFAST	SUITABILITY 16+
ADMISSION & BOOKING FREE. ADVANCE BOOKING IS RECOMMENDED VIA NMNI.COM/UM/WHAT-S-ON OR 028 9044 0000	

Theodore Gray, author of the best-selling Elements and Molecules books, element collector extraordinaire, and winner of the igNobel Prize for Chemistry in 2002 (for his remarkable Periodic Table) and a BAFTA in 2014, talks about the stories behind chemical substances and the importance of encountering them without prejudice.



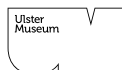
explore/engage/enjoy



LATE LAB 2

DATE FRIDAY 26 FEB	TIME(S) 7PM - 11PM
VENUE ULSTER MUSEUM, BOTANIC GARDENS, BELFAST	SUITABILITY 18+
ADMISSION & BOOKING £5. ADVANCE BOOKING RECOMMENDED. <small>VIA WWW.NMNI.COM OR BY CALLING 028 9044 0000 (LINES OPEN TUESDAY-SUNDAY, 10AM - 5PM)</small>	

Following a triumphant début, LaTe LaB is back with a bang! Travel into the mind of a mad scientist, as the Ulster Museum is transformed for one night only, with breath taking live experiments, spectacular science shows and mercurial music. Discover your periodic party personality – do you light up the room like neon? Or perhaps you're a bright spark like phosphorous? Or are you flighty and explosive like hydrogen? Our chemistry cocktails will no doubt help catalyse your evening's fun, so don your best geek chic and join us for Belfast's ultimate science party!



explore/engage/enjoy



MUMMY MANIA

DATE SUNDAY 21 FEB	TIME(S) 2PM - 4PM
VENUE QUEEN'S UNIVERSITY GAP BUILDING, ELMWOOD AVE, BELFAST	SUITABILITY KIDS AND PARENTS
ADMISSION & BOOKING FREE. REGISTRATION IS REQUIRED VIA NISCIENCEFESTIVAL.COM	

Mummies are a constant source of fascination. For over 9,000 years certain people from around the world have been going to great lengths to make sure the bodies of the dead are preserved for the afterlife. The session will start with an introduction to mummies and will explain how and why the bodies are preserved. This will be followed by a workshop during which participants will have the chance to make their own Egyptian mummy - complete with bandages and organs - which they will place within a sarcophagus, decorated with spells and protective symbols of their choice. Braver participants will even have the opportunity to meet a real mummy from the past!



FROM FOSSIL HUMANS & ANIMAL BONES TO STONE AGE TOOLS & PAINT

A Peek into Life in the Pleistocene

DATE FRIDAY 19 FEB	TIME(S) 10AM - 1PM
VENUE QUEEN'S UNIVERSITY GAP BUILDING, ELMWOOD AVE, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE DROP-IN EVENT	

Here's your chance to see, touch and discuss fossil bones of extinct megafauna such as woolly mammoths and rhinos, as well as comparing casts of skulls of some of our closest relatives (gorillas and chimpanzees) and early hominins such as Australopithecines, Neanderthals and early modern humans. Travel back in time thousands of years and have a go at using stone tools like our hunter-gatherer ancestors or making your own cave art using methods of paint production.





FOR THE LOVE OF OPEN MAPPING

DATE	TIME(S)
WEDNESDAY 24 FEB	6PM - 8PM
VENUE	SUITABILITY
QUEEN'S UNIVERSITY GAP BUILDING, ELMWOOD AVE, BELFAST	ALL AGES
ADMISSION & BOOKING	
FREE. REGISTRATION IS REQUIRED VIA NISCENCEFESTIVAL.COM	

GET MAPPING WITH GAP!

DATE	TIME(S)
SATURDAY 20 FEB	10.30AM - 2.30PM
VENUE	SUITABILITY
QUEEN'S UNIVERSITY GAP BUILDING, ELMWOOD AVE, BELFAST + BOTANIC GARDENS	KIDS AND PARENTS
ADMISSION & BOOKING	
FREE. REGISTRATION IS REQUIRED VIA NISCENCEFESTIVAL.COM	

Become a surveyor, map and explore Botanic Gardens using a GPS and return to our dedicated GIS Lab to share what you have found, compare your survey with both modern and old maps using a GIS computer programme.

You will make your own map to take home to share with your friends and family! As we will be surveyors working outside in the morning wrap up warm and bring rain gear (just in case!).

The popularity of open street maps is a great example of how open spatial data is increasingly commonplace in today's society. This workshop focuses on the creation of maps using free open source software, free to access environmental demographic or health data. Maps can be created for fun, to visualise and emphasise a pattern or for decision making.

Join the Geographical Information Science team at GAP to choose your open data, learn about open Geographical Information Systems software (QGIS) and create and customise your own maps!



THE DATING GAME

DATE	TIME(S)
SATURDAY 27 FEB	2.30PM - 4.00PM
VENUE	SUITABILITY
QUEEN'S UNIVERSITY GAP BUILDING, ELMWOOD AVE, BELFAST	16+
ADMISSION & BOOKING	
FREE. REGISTRATION IS REQUIRED VIA NISCENCEFESTIVAL.COM	

Have you ever wondered how radiocarbon dating is done to produce dates for archaeologists and geoscientists? This event will introduce you to radiocarbon dating through a short lecture followed by a tour of the 14CHRONO Centre – Queen's University AMS radiocarbon dating facility - the only one on the entire island of Ireland.

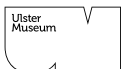




LOTIONS, POTIONS AND EXPLOSIONS

DATE SATURDAY 20 FEB	TIME(S) 12.30 & 2.30
VENUE ULSTER MUSEUM, BOTANIC GARDENS, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING £3 PER PERSON, £10 PER FAMILY (FOUR PEOPLE, WITH AT LEAST ONE ADULT) ADVANCE BOOKING IS RECOMMENDED. BOOK VIA NMNI.COM/UM/WHAT'S-ON. FOR FURTHER INFORMATION PLEASE CONTACT 028 9044 0000 OR E-MAIL: ULSTERMUSEUMRECEPTION@NMNI.COM	

Did you know you could have such scientific fun with some boiled cabbage? Or do lots of experiments with the contents of your kitchen cupboards? Scientific Sue will show you how. However, she also has a naughty side, so if you want someone to leave smelling bad or if you would like to have someone exploded, come along and join us. Be prepared for lots of audience participation, explosions, mess and fun.



explore/engage/enjoy



SHERLOCK HOLMES, CSI & GEOLOGY

How Geologists Help Solve Crimes

DATE SUNDAY 21 FEB	TIME(S) 2PM - 4PM
VENUE QUEEN'S UNIVERSITY GAP BUILDING, ELMWOOD AVE, BELFAST	SUITABILITY KIDS AND PARENTS
ADMISSION & BOOKING FREE. REGISTRATION IS REQUIRED VIA NISCIENCEFESTIVAL.COM	

What is forensic geology and how can soil found on a shoe help to solve a crime? How has geology helped to solve several high profile criminal cases in the UK and internationally?

A series of interactive talks reveal how real forensic geologists think. An interactive workshop will help to show how an understanding of rocks, soil and the environment can assist in unravelling crime.

Supported by the Northern Ireland Regional Group of the Geological Society of London and the International Union of Geological Sciences Initiative on Forensic Geology (IUGS IFG).





EARTH'S CLIMATE EVOLUTION

A New Perspective

WATER

The Extraordinary Story of Our Most Ordinary Substance

DATE SATURDAY 20 FEB	TIME(S) 1PM - 2PM
VENUE CRESCENT ARTS CENTRE, UNIVERSITY RD, BELFAST	SUITABILITY 14+
ADMISSION & BOOKING £8/£5 CONCESSION. BOOK VIA NISCIENCEFESTIVAL.COM	

Water may seem ordinary – it pours from our taps and falls from the sky – but you would be surprised at what a profoundly strange substance it is. Without its rebel behaviour, though, none of us would exist. Alok Jha will change the way you look at water – it has shaped life on earth, and connects you and everyone else to the birth (and death) of the universe.

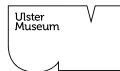
Alok Jha is a journalist, author and broadcaster, focusing on stories about science. He is the science correspondent at ITV News. Before that, he spent a decade at the Guardian and made programmes for the BBC.

DATE MONDAY 22 FEB	TIME(S) 6PM - 8PM
VENUE ULSTER MUSEUM, BOTANIC GARDENS, BELFAST	SUITABILITY 16+
ADMISSION & BOOKING FREE. REGISTRATION IS ADVISED VIA NISCIENCEFESTIVAL.COM	

An illustrated lecture by the distinguished marine geologist and oceanographer Dr Colin Summerhayes of the Scott Polar Research Institute at Cambridge University.

Dr Summerhayes describes what we can learn about historical climate change from the little-known geological record hidden in rock and ice cores, and examine what that can tell us about what is happening to our climate now and what may happen in future. The lecture should be of interest to anyone interested in the vitally important topic of climate change, which can be expected to affect all our lives in the future.

Supported by the Geological Society Northern Ireland Regional Group & Institute of Geologists of Ireland



explore/engage/enjoy



THE ELEMENTS: FROM ACTINIUM TO ZIRCONIUM

DATE ONGOING THROUGH- OUT THE FESTIVAL	TIME(S) 10AM - 5PM (CLOSED MONDAYS)
VENUE ULSTER MUSEUM, BOTANIC GARDENS, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE ADMISSION	

Visit the unique Elements Gallery in the Ulster Museum, the only one of its kind anywhere in Europe, to see for yourself what each element looks like and discover how some of the most unfamiliar elements turn up in some of the most everyday objects.

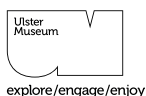
Pick up one of our family Elements exhibition trails at the reception desk to discover more about the elements that are all around us, in the things we use, and in every one of us.

For school groups (Year 8 upwards) a free gallery booklet will lead students from the Periodic Table display through the familiar themes in the gallery. Discover which element was the scourge of hat makers, which element is the rarest on Earth, and which 'stone age' element is vital for electronics. An intriguing and enlightening look at the use of elements through time.

IN OUR ELEMENTS: IN TOUCH WITH SCIENCE

DATE TUESDAY 23 FEB	TIME(S) 2PM - 4PM
VENUE ORMEAU ROAD LIBRARY, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE. REGISTRATION IS ADVISED VIA NISCENCEFESTIVAL.COM	

Join Mike Simms, curator of the Ulster Museum's Elements exhibition, to find out more about the raw ingredients from which you, and everything else you can see in the Universe, are made. Discover how our colourful world is built from grey metals and colourless gases. See for yourself how we can prove that the elements in distant stars are no different from those on Earth. Experience the true density of gold, and take the opportunity to handle a piece of the rarest stable element on Earth.





NATURAL WORLD

“All my life through, the new sights of
nature made me rejoice like a child.”

- **Marie Curie**



SCIENCE OF THE SEA

DATE 20 - 21 FEB & 27 - 28 FEB	TIME(S) 10AM - 4PM
VENUE TITANIC BELFAST, OLYMPIC WAY, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE DROP-IN EVENT, NO BOOKING REQUIRED.	

Titanic Belfast's Ocean Exploration Centre is delighted to join forces with the Loughs Agency's Riverwatch, RSPB Northern Ireland, Ulster Wildlife and Queens University Belfast to bring two weekends of family-friendly activities.

Come and meet some of our amazing marine life in Riverwatch's touch tank, investigate the uses of seaweed with Ulster Wildlife's amazing seaweed hand spa, learn about the RSPB's wonderful nature reserve right on our doorstep, and join the Ocean Exploration Centre's crew in the experiments and demonstrations which explain some of the fascinating science behind how our oceans operate.

Find out more about how marine creatures live by meeting biologists who use computer technology to track and measure how animals move. See how the blending of technology and biology is rapidly changing how we think about ocean ecology. You'll be able to try out the technology for yourself and you may even learn a bit about your own biology when we put a tracker on you!

Also on display will be a mini-exhibition of artwork by AFBI's Artist-at-Sea, Alice Clark, whose work was inspired by the time she spent on-board AFBI's research vessel, the RV Corystes.





AFBI RESEARCH VESSEL CORYSTES

Open House Tours

DATE 18 & 19 FEB	TIME(S) 10AM - 4PM
VENUE QUEEN'S QUAY, TITANIC QUARTER (BESIDE SSE ARENA)	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE. REGISTRATION IS ADVISABLE VIA NISCENCEFESTIVAL.COM. MUST BE BOOKED IN ADVANCE. TOURS TAKE PLACE EVERY HOUR ON THE HOUR AND LAST 35-40 MINUTES. NO HIGH HEELS PERMITTED ON-BOARD	

For the first time ever, the Agri-Food and Bioscience Institute (AFBI) research ship, the RV Corystes, is opening its doors to welcome aboard members of the public as part of Northern Ireland Science Festival.

Join one of the hourly tours and climb on-board to get a tour of the ship, meet the crew and scientists and find out what they do when they go to sea!

It was time spent at sea on-board the RV Corystes that inspired the work of artist Alice Clark, which is currently on display in the Galley Café at Titanic Belfast. After your tour, why not check it out and compete your experience of the ship. For further details email NISF2016@TitanicBelfast.com



MARINE DEBRIS ART EXHIBITION

DATE 18 - 28 FEB	TIME(S) 10AM - 5PM
VENUE TITANIC BELFAST, OLYMPIC WAY, BELFAST	SUITABILITY ALL AGES, SCHOOL & EDUCATORS
ADMISSION & BOOKING FREE DROP-IN EVENT, NO BOOKING REQUIRED.	

Titanic Belfast's unique Marine Debris art exhibition is the result of a cross-curricular environmental awareness competition which was run for schools.

Students had to go to a local beach to carry out a marine debris (litter) survey and beach clean-up with a difference – some of the litter was then taken back to the classroom, cleaned and used to create some stunning pieces of marine-themed art!

All of the winning and shortlisted entries will be on display throughout Titanic Belfast for the duration of NI Science Festival.





MAPPING TITANIC TREES

DATE THU 18 FEB & FRI 19 FEB	TIME(S) 10AM - 12PM
VENUE FSC NI, ARC DEVELOPMENT, QUEEN'S ROAD, TITANIC QUARTER, BELFAST	SUITABILITY KIDS & PARENTS
ADMISSION & BOOKING FREE. BOOKING REQUIRED, PLEASE EMAIL PATRICIA.NI@FIELD-STUDIES-COUNCIL.ORG	

Come and learn some GPS mapping skills with the Field Studies Council and collect important environmental data for scientists with OPAL (Open Air Laboratories) - a UK wide citizen science initiative, funded by Big Lottery fund. Get closer to the environment through gathering vital scientific information on the species, height, girth, pests and the wildlife supported in Titanic's trees.

BE WOWED BY NATURE!

DATE SATURDAY 20 FEB	TIME(S) 10AM - 4PM
VENUE BELFAST'S WINDOW ON WILDLIFE NATURE RESERVE, AIRPORT ROAD WEST, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE DROP IN EVENT (RESERVE ADMISSION WAIVED. DONATIONS GRATEFULLY ACCEPTED)	

Join RSPB Northern Ireland at its nature reserve nestled in the heart of the bustling Belfast Harbour Estate. Belfast's Window on Wildlife (WOW) is home to all sorts of amazing birds and wildlife from around the world. Enjoy panoramic views of the lagoon as you learn about some of the creatures which rely on Belfast Lough and the wider waters off Northern Ireland, including the amazing ocean quahog - a mollusc which can live to be 500 years old!

RSPB NI's Kenneth Bodles will also explain the crucial role science plays in protecting some of our most threatened species.

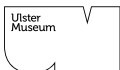




WHAT'S A MILLIPEDE MADE FROM?

DATE FRIDAY 19 FEB	TIME(S) 11AM - 4.30PM
VENUE ULSTER MUSEUM, BOTANIC GARDENS, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING £3 PER PERSON, £10 PER FAMILY (FOUR PEOPLE, WITH AT LEAST ONE ADULT) ADVANCE BOOKING IS RECOMMENDED. TICKETS AND TIME SLOT CAN BE BOOKED ON NMNI.COM/UM/WHAT-S-ON . FOR FURTHER INFORMATION PLEASE CONTACT 028 9044 0000 OR E-MAIL: ULSTERMUSEUMRECEPTION@NMNI.COM	

Elements are the building blocks of everything that exists, including you. So millipedes, insects, spiders and reptiles are made from elements - but are they the same elements that make up you? Karl from EcoMantella will show you some of his wide collection of animals to help you find out what you have in common with insects.



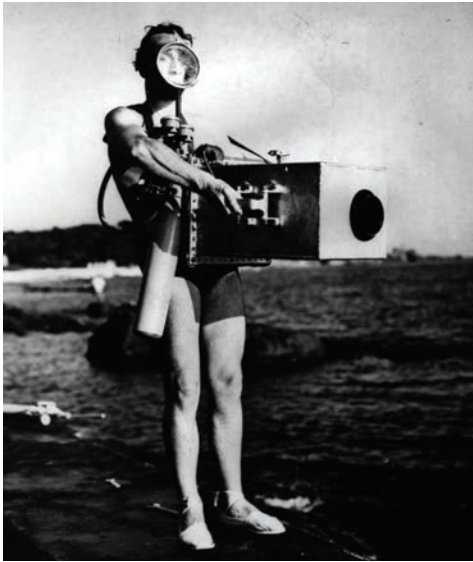
explore/engage/enjoy

UGLY ANIMALS ROADSHOW

DATE FRIDAY 26 FEB	TIME(S) 6PM - 7PM
VENUE TITANIC BELFAST, OLYMPIC WAY, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING £6.50/£20 FAMILY TICKET. BOOK VIA TITANICBELFAST.COM	

Back by popular demand, Simon Watt returns to the NI Science Festival with his Ugly Animals Roadshow! Suitable for all the family, this promises to be an entertaining look at conservation from an unusual perspective.





FILMS BY JEAN PAINLEVÉ

DATE SATURDAY 20 FEB	TIME(S) 2PM - 4PM
VENUE BEANBAG CINEMA, 23 DONEGALL STREET BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING £4. BOOK VIA NISCENCEFESTIVAL.COM	

Poetic pioneer of science films, Painlevé explored a twilight realm of vampire bats, seahorses, octopi and liquid crystals. In collaboration with his life-partner Geneviève Hamon, Painlevé made more than 200 science and nature films and was an early champion of the genre. Possessing a remarkable eye for life's eerie curiosities, Painlevé's art pivots on the premise that science is fiction. He created a landscape of bug-eyed wonderment marked by a playful sense of nature's poetry and scandalized the scientific world with a cinema designed to entertain as well as edify. In the process he won over the circle of surrealists and avant-gardists and counted amongst his friends Antonin Artaud, Sergei Eisenstein, Jean Vigo and Luis Buñuel.



MY LIFE WITH ATTENBOROUGH & CHANGE THE WORLD

DATE 18 & 19 FEB	TIME(S) 10AM - 4PM
VENUE THE OPEN UNIVERSITY, 110 VICTORIA STREET, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE. PRE-REGISTRATION IS REQUIRED VIA NISCENCEFESTIVAL.COM	

Workshop 1 (10am – 12pm):

My life with Attenborough

Work with broadcasting material from across 60 years of David Attenborough's world around us. You can tell your own story about what you know and think about the natural world, drawing on clips and other materials from his TV shows.

Workshop 2 (2pm – 4pm): Change the World

How can broadcast archive material be put to work and help get people more engaged in environmental issues? What are the most powerful?





BELFAST'S BUZZING

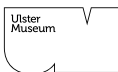
DATE SUNDAY 21 FEB	TIME(S) 11AM - 4.30PM
VENUE ULSTER MUSEUM, BOTANIC GARDENS, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE. BOOKING IS ADVISABLE BOOK VIA THE ULSTER MUSEUM WEBSITE WWW.NMNI.COM/UM/WHAT-S-ON . FOR FURTHER INFORMATION PLEASE CONTACT 028 9044 0000 OR E-MAIL ULSTERMUSEUMRECEPTION@NMNI.COM	

Come along and learn about the amazing world of bugs and insects. Find out how we are dependent on these for our food and what you can do to help our local minibeasts.

There will be a series of short talks throughout the day on bee-keeping, wild bees, butterflies, moths and spiders which will enthral the whole family.

We also invite you to get involved and help us make Belfast a City of Wildflowers with all visitors receiving a free packet of wildflower seeds to take away and plant.

Belfast City Council in partnership with Ulster Museum
(National Museums Northern Ireland)



explore/engage/enjoy

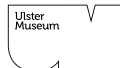
FROM FOREST TO FARMLAND

Using Science to Understand Changes in the Irish Landscape

DATE WEDNESDAY 24 FEB	TIME(S) 7PM - 8PM
VENUE ULSTER MUSEUM, BOTANIC GARDENS, BELFAST	SUITABILITY 16+
ADMISSION & BOOKING FREE. ADVANCE BOOKING IS RECOMMENDED. TICKETS CAN BE BOOKED VIA WWW.NMNI.COM/UM/WHAT-S-ON . FOR FURTHER INFORMATION PLEASE CONTACT 028 9044 0000 OR E-MAIL ULSTERMUSEUMRECEPTION@NMNI.COM	

Climate and humans have shaped the landscape that we see around us today since the end of the last ice age. Understanding past environmental change draws on a range of biological, physical, chemical, earth and archaeological science techniques, providing a baseline for distinguishing natural changes from human impacts.

We can gather evidence from bogs, lakes and other environments to examine when and why climate changed in the past, what impacts these changes had on the natural environment and on societies that endured them. Join Dr Gill Plunkett as we look at what role humans have played in transforming the landscape over the course of thousands of years.



explore/engage/enjoy



INSIDE NATURE'S GIANTS

Dissections Uncut

DATE	TIME(S)
SATURDAY 27 FEB	7PM - 8PM
VENUE	SUITABILITY
TITANIC BELFAST, OLYMPIC WAY, BELFAST	16+
ADMISSION & BOOKING	
ADMISSION: £6.50 BOOK VIA TITANICBELFAST.COM	

Inside Nature's Giants is an award-winning documentary series, produced by Channel 4, which looks under the skin of the largest animals on the planet, exploring their anatomy to reveal how these creatures really work.

For this event, presenter Simon Watt takes the series to the next step with Dissections Uncut - a presentation full of never-before seen footage from the series with a focus on the giants of the oceans.

Join us to find out how the giant squid, great white shark, whales and turtles have adapted so well to their watery environment to become the giants of the deep blue sea.



SCHOOLS & EDUCATORS

"The mediocre teacher tells.
The good teacher explains.
The superior teacher demonstrates.
The great teacher inspires."

- **William Arthur Ward**



GLOBAL EXPERIMENT

DATE TUESDAY 23 FEB	TIME(S) 9AM - 6PM	
VENUE WHEREVER YOU ARE!	SUITABILITY ALL AGES	
ADMISSION & BOOKING FREE BUT REGISTRATION IS REQUIRED, PLEASE VISIT NISCIENCEFESTIVAL.COM		

Last year we broke the Guinness World Record with 1,339 individuals taking part in the Largest Practical Science Lesson ever at the Odyssey Arena in Belfast! This year we are going Global, with an opportunity for schools, community groups, clubs and families in Northern Ireland to be among the first to take part in the 2016 Royal Society of Chemistry's Global Experiment.

As part of the RSC's 175th anniversary, you will be collaborating with thousands of students from around the world. Pupils can conduct this experiment at home or in the classroom, then post their data and add a picture to the RSC's worldwide evolving database and see how your results compare to others around the world.

The experiment is accessible and does not require specialist equipment. Instructions will be emailed to all registered participants and a limited number of experiment packs will be supplied to the first NI groups to register.

On the day, we strongly encourage participants to report progress via social media and upload results to the Global Experiment website where you will see the global picture and receive your participation certificate.



DATE	TIME(S)
MONDAY 22 FEB	5PM - 7.30PM
VENUE	SUITABILITY
TITANIC BELFAST, OLYMPIC WAY, BELFAST	KEY STAGE 3
ADMISSION & BOOKING	
LIMITED AUDIENCE TICKETS ARE AVAILABLE FOR THIS EVENT FOR TEAM SUPPORTERS. TO BOOK VISIT NISCENCEFESTIVAL.COM	

Having battled their way through the qualifying heats during January, the final of the inaugural Titanic Belfast STEM Quest will see the competitors go head to head and really put their grey matter to the test in a bid to claim the prestigious trophy.



TITANIC
RELEAS T

HOW TO BE A SPACE EXPLORER

DATE FRIDAY 26 FEB	TIME(S) 12NOON
VENUE ARMAGH PLANETARIUM	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE BOOKING REQUIRED FOR SCHOOLS 02837 523689 OR RECEPTION@ARMAGHPPLANET.COM	

How to be a Space Explorer presents all you need to know about space travel: how to planet hop, how to pee in a spacesuit, and how to build a Solar System out of fruit, balloons, and bog roll. A lively and rap-ridden show about space, with author Mark Brake and TV presenter Jon Chase.



UGLY ANIMALS SCHOOLS ROADSHOW

DATE FRIDAY 26 FEB	TIME(S) 11AM - 12PM
VENUE TITANIC BELFAST, OLYMPIC WAY, BELFAST	SUITABILITY ALL AGES
ADMISSION & BOOKING TO BOOK EMAIL NISF2016@TITANICBELFAST.COM	

Back by popular demand, Simon Watt returns to the NI Science Festival with his Ugly Animals Roadshow!

LIFE AS AN ASTRONAUT

DATE MON 22 - THU 25 FEB	TIME(S) 11AM-4PM
VENUE ARMAGH PLANETARIUM	SUITABILITY ALL AGES
ADMISSION & BOOKING FREE BOOK VIA 02837 523689 OR RECEPTION@ARMAGHPPLANET.COM	

Do you know what it takes to become an Astronaut? How has life changed from the early Apollo missions to the current missions to the International Space Station? How do you eat in space? What does space food taste like? Can you have a bath in space? What will happen to the future explorers, will it be possible to actually live on Mars? Find out the answers to these questions and more at the Armagh Planetarium's 'Life as an Astronaut' workshop for schools.





FROM FARM TO FORK

A LOOK INSIDE THE STEM INDUSTRIES

DATE TUESDAY 23 FEB	TIME(S) 10AM - 3PM
VENUE NRC COLERAINE CAMPUS, UNION STREET, COLERAINE	SUITABILITY GCSE STUDENTS
ADMISSION & BOOKING FREE TO REGISTER CONTACT MICHELLE AT NORTHERN REGIONAL COLLEGE TEL: 028 7034 0136.	

GCSE students are invited to gain hands-on experience in specialised STEM Associated Workshops, aimed at industrial applications in the areas of Science, Construction, Engineering, I.T. and Sport Science.

DATE FRIDAY 26 FEB	TIME(S) 9.30AM - 3.30PM
VENUE NORTHWEST REGIONAL COLLEGE, STRAND ROAD, LONDONDERRY	SUITABILITY KEY STAGE 4 & KEY STAGE 5
ADMISSION & BOOKING FREE REGISTRATION IS REQUIRED, PLEASE EMAIL MARTA.MCDAID@NWRC.AC.UK	

From Farm to Fork is a series of three practical workshops aimed at secondary school students (preferably KS4/KS5) exploring the future of our agricultural landscape today.

A wide range of topics will be explored such as the effect of pesticides on wildlife and consumers and the ways in which these can be reduced or replaced as well as the extraction of lycopene from tomatoes and the enumeration of bacteria from tomatoes (processed/non-processed). We will also explore environmental sustainability of food production, the role of 'superfoods' and methods of preventing food spoilage with novel food preservation techniques.

ELEPHANT'S TOOTHPASTE & DEAF SCIENTISTS OF THE PAST

DATE MONDAY 22 FEB	TIME(S) 11AM & 1PM
VENUE LECTURE HALL AT THE W5 BELFAST	SUITABILITY SCHOOLS & EDUCATORS
ADMISSION & BOOKING FREE FOR MORE INFO AND TO BOOK, EMAIL SUE BARRY AT COORDINATOR.DRP@BDA.ORG.UK	

them to discover exploding pop rockets, how to make elephant's toothpaste and other magic in a special interpreted event accessible to everyone.

Deaf scientists of the Past

A BSL-interpreted event where all will be invited to go on a time machine to meet famous scientists of the past! Exploding rockets and comets will be included!



Elephant's Toothpaste Show in British Sign Language
Dr Audrey Cameron and Gary Quinn are Brainy and Brawny as they demonstrate science experiments in British Sign Language. Join



INSIDE YOUR BODY

DATE WED 24 - FRI 26 FEB	TIME(S) 10AM - 12PM
VENUE SESSIONS WILL BE DELIVERED IN YOUR SCHOOL (SUBJECT TO BOOKING)	SUITABILITY KEY STAGE 1+2
ADMISSION & BOOKING FREE CONTACT SHARON TOSH AT THE NERVE CENTRE TO BOOK A SESSION FOR YOUR CLASS S.TOSH@NERVECENTRE.ORG OR CALL 02871 260562.	

In this two hour workshop pupils in a classroom setting will use iPads to explore the human anatomy. Using green screen technology and animation they will be transported inside the body to learn how some of our organs work.



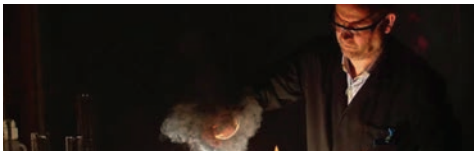
STEM IN ACTION

Female Workshops

DATE THURSDAY 25 FEB	TIME(S) 10AM - 2PM
VENUE BELFAST METROPOLITAN COLLEGE - TITANIC QUARTER CAMPUS, BELFAST	SUITABILITY FEMALE PUPILS FROM SCHOOLS ACROSS THE GREATER BELFAST AREA.
ADMISSION & BOOKING FREE TO REGISTER CONTACT SARAH TEMPLETON ON 028 90265355	

Belfast Met will host a number of STEM in ACTION 'Have a Go' introductory workshops for females across various STEM curriculum areas. Students will have the opportunity to take part in a number of workshops, providing a broad overview of various STEM careers.

Specific workshops will cover areas such as mobile apps, games, television, engines, space, agri-food, auto cad, motor vehicles, chemistry, plumbing, electricity and renewable technologies.



PLAYFUL CHEMISTRY

DATE FRIDAY 26 FEB	TIME(S) 10AM - 12.30PM
VENUE STRANMILLIS UNIVERSITY COLLEGE, BELFAST	SUITABILITY PRIMARY SCHOOLS
ADMISSION & BOOKING FREE CERTAIN COSTS INCURRED BY SCHOOLS WILL BE COVERED BY THE PSTT AND THE STRANMILLIS WIDENING PARTICIPATION UNIT. SCHOOLS INTERESTED IN TAKING PART SHOULD CONTACT PSTTHUB@STRAN.AC.UK FOR FURTHER DETAILS.	

Hosted by the Primary Science Teaching Trust (PSTT) team at Stranmillis University College, this event aims to highlight how chemistry can be made more relevant and engaging for pupils. It offers a playful formula for chemistry, setting chemical concepts in exciting, every day and imaginary contexts. The programme will involve an interactive 'fizz-bang' demonstration lecture by Tim Harrison from the Royal Society of Chemistry, in which he performs playful experiments that are sure to raise—not singe—eyebrows!

Pupils will then get the chance to try out some exciting experiments during a workshop facilitated by Stranmillis University College student teachers and science education staff.



STRANMILLIS UNIVERSITY COLLEGE
A College of Queen's University Belfast



THE SCIENCE OF JUSTICE

DATE THURSDAY 25 FEB	TIME(S) 12PM - 3PM
VENUE SOUTHERN REGIONAL COLLEGE (PORTADOWN CAMPUS)	SUITABILITY 14+
ADMISSION & BOOKING FREE. TO BOOK E-MAIL: JOHNSTONP@SRC.AC.UK	

Explore the science behind the recording and analysis of crime scene evidence and the techniques used in our modern justice system. Visit three forensic labs including: Toxicology Lab – take part in the sampling of powder samples, help us identify and eliminate dangerous drugs. Analyse the content of a

personal bag discarded at a crime scene. Crash Lab – use a speed radar gun and carry out a speed determination test by calculating the coefficient between the road surface and the tyre thread. Analyse all the evidence including a mock-up of the scene. Suspect Identification – simulated blood sampling and DNA profiling to identify and eliminate persons of interest.

So come for the crime, stick around for the clues. Students receive a certificate of participation.



THE SCIENCE OF THE LUSITANIA

DATE MON 22 - TUE 23 FEB	TIME(S) 10AM - 12.30PM
VENUE SESSIONS WILL BE DELIVERED IN YOUR SCHOOL (SUBJECT TO BOOKING)	SUITABILITY KEY STAGE 3
ADMISSION & BOOKING FREE CONTACT NIAL KERR AT THE NERVE CENTRE TO BOOK A SESSION FOR YOUR CLASS N.KERR@NERVECENTRE.ORG OR TEL: 028 7126 0562	

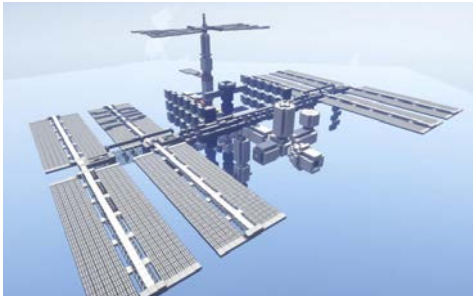
In 1915 the Lusitania was making its way from New York to Liverpool when it was attacked and sunk off the coast of Cork costing the lives of over 1,000 people. The sinking caused outrage around the world and impacted on events surrounding the First World War. Using a comic book produced for the Creative Centenaries project, students will examine a 3D model of the liner, exploring the science behind the make-up of the ship and its voyage. Students will then use green screen technology and animation to tell the story of the sinking.

LOTIONS, POTIONS, AND EXPLOSIONS

DATE WEDNESDAY 24 FEB	TIME(S) 10.30 - 11.30AM 12.30 - 1.30PM
VENUE ULSTER MUSEUM, BOTANIC GARDENS, BELFAST	SUITABILITY PRIMARY 6+7
ADMISSION & BOOKING FREE REGISTRATION IS ESSENTIAL. TO BOOK YOUR SCHOOL GROUP OR FOR MORE INFORMATION, PLEASE EMAIL GERALDINE.MACARTNEY@NMNI.COM . PLEASE NOTE THE SHOW YOU WISH TO ATTEND AND PLEASE DO NOT ARRANGE TRANSPORT UNTIL YOUR BOOKING IS CONFIRMED BY THE MUSEUM.	

Scientific Sue, from Science2Life, has a dynamic and innovative approach to teaching and learning which not only promotes lifelong learning and the development of creativity and thinking and problem solving skills, but also makes STEM (science, technology, engineering and mathematics) subjects simple, real and relevant.

‘Lotions and Potions’ links with our fabulous ‘Elements’ exhibition to introduce pupils to some familiar elements and the exciting things they can do. Prepare for lots of audience participation, explosions, mess, fun and learning.



MINECRAFTEDU DAY

Exploring the International Space Station

DATE FRIDAY 26 FEB	TIME(S) 9AM - 3PM
VENUE YOUR SCHOOL!	SUITABILITY KEY STAGE 2 + 3
ADMISSION & BOOKING REGISTER VIA RACHEL@CULTURETECH.CO . REGISTRATION DEADLINE IS FRIDAY 29 JANUARY 2016	

Explore the International Space Station (ISS) in Minecraft with CultureTECH! Using the power of MinecraftEDU, which will be installed into nearly 240 NI schools, pupils will explore the ISS (both inside and out), discovering the living conditions of British Astronaut Tim Peake.

The map will be supported with detailed lesson plans - connected to the relevant STEM curriculum - and links to background information.

To take part, your school just needs to run a class using the International Space Station MinecraftEDU map and then share it with us online through images, video and social media. All necessary resources will be provided in advance and all participating schools will receive advance access to both the new project module and a free programme of workshops, webinars and tutorials for teachers interested in using Minecraft in the classroom.



PHYSICS IN THE AFTERNOON

DATE TUESDAY 23 FEB	TIME(S) 1PM - 3PM
VENUE ULSTER MUSEUM, BOTANIC GARDENS, BELFAST	SUITABILITY KEY STAGE 3 + 4
ADMISSION & BOOKING FREE TO BOOK, CONTACT LIZ CONLON AT LIZ.CONLON@IOP.ORG OR TELEPHONE 07720 497002 FOR FURTHER DETAILS.	

The Institute of Physics presents an afternoon of physics for KS 3 + 4 pupils including two half hour talks from two super physics communicators. Ian Chapman from Culham Centre for Fusion Energy will bring us up to date with what many believe will be the solution to all the world's energy problems – nuclear fusion (sponsored by the British Science Association).

This is followed by Belgian's favourite physics entertainer, Lieven Scheire, who explains some of the most difficult ideas of physics through comedy. Pupils will also get the chance of a guided tour of physics demos upstairs in the Museum.

IOP | Institute of Physics
In Ireland



MAPPING TITANIC TREES

DATE 22 & 23 FEB	TIME(S) 10AM - 12PM
VENUE FSC NI, ARC DEVELOPMENT, QUEEN'S ROAD, TITANIC QUARTER, BELFAST	SUITABILITY YEAR 8 & ABOVE
ADMISSION & BOOKING FREE. BOOKING REQUIRED, PLEASE EMAIL PATRICIA.NI@FIELD-STUDIES-COUNCIL.ORG	

ENVIRONMENTAL MONITORING

Using SERC Woodland & Science Labs

DATE WEDNESDAY 24 FEB	TIME(S) 10.15AM - 3.30PM
VENUE SOUTH EASTERN REGIONAL COLLEGE, BANGOR	SUITABILITY YEAR 11 & 12 UPWARDS
ADMISSION & BOOKING FREE TO BOOK E-MAIL: NRITCHIE@SERC.AC.UK AT SOUTH EASTERN REGIONAL COLLEGE	

Consisting of three separate stations, this event will focus on monitoring environmental variables in the SERC Woodland.

Station One - Students will use collected water samples and use a specially developed SERC app to determine pollution levels in fresh water.

Station Two - Students will use High Pressure Liquid Chromatography, to identify pollutants present and the concentration of pollutant.

Station Three - Students will collect data from the SERC woodland to determine Biodiversity. Identify native species and use natural indicators of pollutants.

The day will finish with comparison, results and discussion.



Come and learn some GPS mapping skills with the Field Studies Council and collect important environmental data for scientists with OPAL (Open Air Laboratories), - a UK side citizen science initiative, funded by Big Lottery fund. Get closer to the environment through gathering vital scientific information on the species, height, girth, pests and the wildlife supported in Titanic's trees.

NEW CCEA SCIENCE QUALIFICATION:

Laboratory Sessions and Careers Information Event

DATE WEDNESDAY 24 FEB	TIME(S) 10.15AM - 12.30PM
VENUE MBC BUILDING, QUEEN'S UNIVERSITY, BELFAST	SUITABILITY YEAR 12 PUPILS
ADMISSION & BOOKING PLACES ARE LIMITED AND BOOKING IS ESSENTIAL. PLEASE CONTACT DR CLARE RYAN, OUTREACH COORDINATOR (CLARE.RYAN@QUB.AC.UK) TO SECURE PLACES.	

If you've got an investigative mind and want to study science at A Level but maybe you haven't decided which of the sciences to choose, then this event is for you! Our tester session event which has been specifically designed to encourage Year 12 pupils to understand the relationship between scientific principles encountered within the new Science A Level and STEM careers. The session involves practical, hands-on laboratory sessions and careers information.



MAGIC OF TIME

DATE 23 & 24 FEB	TIME(S) 10.00AM - 4.00PM
VENUE ULSTER AMERICAN FOLK PARK, OMAGH, CO. TYRONE	SUITABILITY ALL AGES
ADMISSION & BOOKING GENERAL ADMISSION RATES APPLY (SEE UAFF WEBSITE). GROUPS MUST BOOK IN ADVANCE VIA NMNI.COM	

This tour is a new way to experience the past by incorporating history, maths, magic and mystery! The Magic of Time is a select tour where visitors visit nine sites in the Folk Park, telling the story

of emigration with a twist. Maths concepts are integrated into the historical setting to show that maths is fun. A booklet explaining how to re-create the magic at home and school is available at the admissions desk.



HOMEMADE SCI-FI CHALLENGE

DATE FRIDAY 26 FEB	TIME(S) 11AM - 12.30PM & 1PM - 2.30PM
VENUE NERVE BELFAST, ULIDIA RESOURCE CENTRE, BELFAST	SUITABILITY KEY STAGE 2 + 3
ADMISSION & BOOKING FREE FOR FURTHER INFORMATION AND REGISTRATION CONTACT SEAN.KELLY@INTOFILM.ORG	

With the support of Into Film, recreate epic space battles, car chases, special effects and dynamic camera shots using materials you find at home. Experiment with Green screens, miniatures, camera tricks, Make up and Sound effects, which all combine into a fun and messy workshop that explores some of the science involved in the movie making process. Bring along a smartphone or tablet and capture your own footage, then continue your story at home. Bring the science of Sci-Fi alive in your kitchen, classroom or garden.

Into Film is a film education charity that puts film at the heart of the educational and personal development of children and young people aged 5-19 across the UK. For more information visit intofilm.org.uk

INTO FILM

SCINNOVATE YOUR CLASSROOM!

DATE MON 22 - FRI 26 FEB	TIME(S) VARIOUS TIMES
VENUE YOUR SCHOOL!	SUITABILITY KEY STAGE 2
ADMISSION & BOOKING FREE TO BOOK E-MAIL: INFO@STEMAWARE.COM OR VISIT SCINNOVATE.CO FOR FURTHER INFORMATION.	

Classroom workshops that will innovatively enthuse, all things of science to the hands and minds of young schools pupils and their teachers. These workshops will be an opportunity to get curious and creative about science investigations, to experience the scientific process of enquiry and help develop fair testing procedures and reasoning.

Each activity will be innovative, engaging and challenging and yet simple, potentially noisy and most likely messy but all well worth it. Facilitated by STEM Aware.

"Everything should be made as simple as possible, but not simpler."

- Albert Einstein.



Derry City & Strabane
District Council
Comhairle
Chathair Dhoire &
Cheantar an tSrátha Bál
Derry Citty & Strabane
District Council

WHAT CAN I DO WITH PHYSICS?

DATE THURSDAY 25 FEB	TIME(S) 5PM - 6.30PM
VENUE BLACK BOX, HILL ST, BELFAST	SUITABILITY TEACHERS & EDUCATORS
ADMISSION & BOOKING FREE TO BOOK, CONTACT LIZ CONLON AT LIZ.CONLON@IOP.ORG OR TELEPHONE 07720 497002 FOR FURTHER DETAILS.	

This is a call out to anyone teaching physics. The Institute of Physics is teaming up with NI Physics Teachers Panel to host a twilight meeting at the Black Box in Belfast. Over pizza and beer, the myriad of exciting careers and the value of physics for future job prospects will be outlined. A number of speakers with physics backgrounds will be sharing their experiences. There is no charge for this event and it is timed so that afterwards you can savour further delights of the Festival!

IOP | Institute of Physics
In Ireland

MAKE YOUR OWN AIR POWERED ROCKET LAUNCHER

DATE TUESDAY 23 FEB	TIME(S) 4.30PM - 6PM
VENUE ULSTER MUSEUM, BOTANIC GARDENS, BELFAST	SUITABILITY TEACHERS & EDUCATORS
ADMISSION & BOOKING FREE. TO BOOK VISIT NISCIENCEFESTIVAL.COM	

Want to know about Rocket Science? Join Scientific Sue in this interactive workshop which explores how planes and rockets fly and can occasionally go into space!

Teachers will get the opportunity to send a range of projectiles flying skywards using a variety of gases and gadgets such as stomp rockets and homemade bazooka rocket launchers. Cups and balloons will be filled with gases such as Helium, CO₂, Air, and Hydrogen for us all to find out the science behind rockets. Newton's Laws of Motion have never been so much fun!

IOP | Institute of Physics
In Ireland



BACK TO THE LAB!

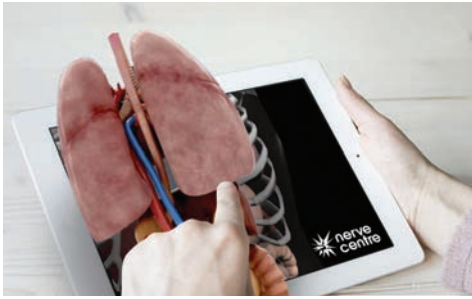
DATE FRIDAY 26 FEB	TIME(S) 9.30AM - 3.30PM (LUNCH WILL BE PROVIDED)
VENUE W5 LABORATORY	SUITABILITY TEACHERS & EDUCATORS
ADMISSION & BOOKING REGISTER THROUGH HTTP://CCEA.ORG.UK/CHEMISTRY/ UNDER 'NEWS AND EVENTS'	

This event, hosted by CCEA, is to support teachers with the practical aspects of the new GCE Chemistry specification for first teaching in September 2016. This full day event will be led by experienced Chemistry teachers and technicians with years of practical and industrial experience.

Delegates will be able to take part in or watch demonstrations of physical, inorganic and organic experiments and analytical techniques taken from the practical areas of the AS and A2 specification. The agenda will include practical support for teaching new topics such as 'Chemistry in Medicine'.

Whether you're newly qualified or would simply like to gain confidence with preparing candidates for the GCE Chemistry practical assessment, come along to W5 for training in modern practical techniques.





STEM TO STEAM IN THE CLASSROOM

INTERACTIVE SCIENCE IN THE CLASSROOM

DATE TUESDAY 23 FEB	TIME(S) 2.30PM - 5.30PM
VENUE NERVE CENTRE, DERRY / LONDONDERRY	SUITABILITY TEACHERS & EDUCATORS
ADMISSION & BOOKING FREE. REGISTRATION IS REQUIRED VIA NISCIENCEFESTIVAL.COM	

This is a free CPD session for teachers. In this session you will learn how to use green screen technology, animation and QR codes to create a more immersive learning experience in the classroom, we will demo science specific examples and then help you create your own subject specific assets to use with your pupils.

You don't have to be a Science teacher to attend this workshop, the skills taught in this course can be used in any subject at any level.



DATE TUE 23 - THU 25 FEB	TIME(S) VARIOUS
VENUE NERVE BELFAST CREATIVE LEARNING CENTRE	SUITABILITY TEACHERS & EDUCATORS
ADMISSION & BOOKING FREE. REGISTER VIA NERVE BELFAST WEBSITE NERVEBELFAST.ORG	

Tues 23rd Feb (14.30 – 17.30)

Sparkling the Imagination: Exploring electronics and basic circuits in the Primary classroom - PRIMARY Teacher Training

Learn how to incorporate basic electronics and circuitry into the Primary classroom by exploring a range of software and hardware to support WAU topics at key stages 1 and 2.

Wed 24th Feb (14.30 – 17.30)

Animation in KS3 Science – POST-PRIMARY Teacher Training (developed in partnership with Stranmillis College)

Learn how animation techniques can be used as a tool to support teaching and learning across a range of scientific concepts and topics that feature in the key stage three Science curriculum.

Thurs 25th Feb (14.30 – 17.30)

Digital Storytelling in Enquiry Based Science – PRIMARY Teacher Training

(developed in partnership with Stranmillis College) Using iPads, learn how digital storytelling and enquiry-based Science activities can be used in the Primary classroom to enhance the teaching and learning of WAU topics.



The background of the entire page is a solid orange color. Scattered across this background are several 3D geometric shapes, specifically truncated octahedrons, in various shades of orange and white. These shapes are positioned at different angles and depths, creating a sense of movement and a modern, scientific aesthetic.

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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.

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AT A GLANCE GUIDE SCHOOLS & EDUCATORS

MONDAY 22 FEBRUARY

EVENT	VENUE	TIME	SUITABILITY
Mapping Titanic Trees	FSC, Titanic Quarter, Belfast	10am – 12pm	Year 8 & Above
Elephant's Toothpaste & Deaf Scientists of the Past - Schools	W5, Belfast	11am & 1pm	All Ages
Life As An Astronaut	Armagh Planetarium	11am – 4pm	All Ages
Scinnovate Your Classroom	Your School!	Various	Key Stage 2
The Science of the Lusitania	Your School!	Various	Key Stage 3
Stem Quest Final	Titanic Belfast	5pm – 7.30pm	Key Stage 3

TUESDAY 23 FEBRUARY

Mapping Titanic Trees	FSC, Titanic Quarter, , Belfast	10am – 12pm	Year 8 & Above
A Look Inside STEM Industries	NRC Coleraine Campus	10am – 3pm	GCSE Students
Magic of Time	Ulster American Folk Park	10am – 4pm	All Ages
Life As An Astronaut	Armagh Planetarium	11am – 4pm	All Ages
The Global Experiment	Your school!	Anytime!	All Ages
Physics in the afternoon	Ulster Museum, Belfast	1pm – 3pm	Key Stage 3 & 4
Interactive Science in the Classroom	Nerve Centre, Derry/Londonderry	2.30pm – 5.30pm	Teachers & Educators
Make Your Own Air Powered Rocket Launcher	Ulster Museum, Belfast	4.30pm	Teachers & Educators
Scinnovate Your Classroom	Your School!	Various	Key Stage 2
The Science of the Lusitania	Your School!	Various	Key Stage 3
From Stem to Steam in the Classroom	Nerve Belfast Creative Learning Centre	Various	Teachers & Educators

WEDNESDAY 24 FEBRUARY

Inside Your Body	Your School!	10am – 12pm	Key Stage 1 & 2
Magic of Time	Ulster American Folk Park	10am – 4pm	All Ages
Environmental Monitoring	SERC, Bangor	10.15am – 3.30pm	Year 11 & 12 Upwards
GCE Applied Science Activity	MBC Building, QUB	10.15am – 12.30pm	Schools & Educators
Lotions and Potions - Schools	Ulster Museum, Belfast	10.30am + 12.30pm	Primary 6 & 7
Life As An Astronaut	Armagh Planetarium	11am – 4pm	All Ages
Scinnovate Your Classroom	Your School!	Various	Key Stage 2
From Stem to Steam in the Classroom	Nerve Belfast Creative Learning Centre	Various	Teachers & Educators

THURSDAY 25 FEBRUARY

Back to the Lab	W5, Belfast	9.30am – 3.30pm	Teachers & Educators
Inside Your Body	Your School!	10am – 12pm	Key Stage 1 & 2
STEM in Action Female Workshops	BMC, Titanic Campus, Belfast	10am – 2pm	Female Pupils
Life As An Astronaut	Armagh Planetarium	11am – 4pm	All Ages
The Science of Justice	Southern Regional College, Portadown	12pm – 3pm	14+
What can I do with Physics?	Black Box, Belfast	5pm – 6.30pm	Teachers & Educators
From Stem to Steam in the Classroom	Nerve Belfast Creative Learning Centre	Various	Teachers & Educators
Scinnovate Your Classroom	Your School!	Various	Key Stage 2

FRIDAY 26 FEBRUARY

MinecraftEDU – Explore the ISS	Your School!	9am – 3pm	Key Stage 2 & 3
From Farm to Fork	NWRC, Strand Road, Derry/Londonderry	9.30am – 3.30pm	Key Stage 4 & 5
Back to the Lab	W5, Belfast	9.30am – 3.30pm	Schools & Educators
Playful Chemistry	Stranmillis University College, Belfast	10am – 12.30pm	Primary Schools
Inside Your Body	Your School!	10am – 12pm	Key Stage 1 & 2
Ugly Animals – Schools Show	Titanic Belfast	11am – 12pm	All Ages
Homemade Sci-Fi Challenge	Nerve Centre, Belfast	11am + 1pm	Key Stage 2 & 3
How To Be a Space Explorer	Armagh Planetarium	12noon	All Ages
Scinnovate Your Classroom	Your School!	Various	Key Stage 2

AT A GLANCE GUIDE

THURSDAY 18 FEBRUARY

EVENT	VENUE	TIME	CATEGORY
Mapping Titanic Trees	FSC, Titanic Quarter, Belfast	10am – 12pm	Natural World, p.66
AFBI Research Vessel Open Tours	Titanic Quarter, Belfast	10am – 4pm	Natural World, p.65
My Life With Attenborough	Open University, Belfast	10am – 12pm & 2pm – 4pm	Natural World, p.68
Better, Stronger, Faster	W5, Belfast	10am – 6pm	Mind & Body, p.10
Life As An Astronaut	Armagh Planetarium	11am – 4pm	Space, p.18
Intro to 3D Printing	Nerve Centre, Derry/Londonderry	1pm – 5pm	Tech & Digital, p.22
BBC Make It Digital	Belfast City Hall	3pm – 9pm	Tech & Digital, p.21
Celebrating Science at Queen's	Riddell Hall, Queen's University, Belfast	5pm – 7.30pm	Science Communication, p.38
Power in Motion (North & West)	Belfast Exposed, Belfast	6.30pm – 9.30pm	Art & Science, p.49
From Rationing to Obesity - A Lecture by Prof Mike Gibney	Somme Centre, Newtownards	7.30pm – 9pm	Science in Society, p.52
Beautiful Molecules: The Architecture of the Elements	Ulster Museum, Belfast	7.30pm – 9.30pm	Earth & Elements, p.56
Bright Club Belfast	Black Box, Belfast	7.30pm – 10pm	Science Communication, p.38

FRIDAY 19 FEBRUARY

Robotics Bot n' Roll Workshop	Strand Road, Derry/Londonderry	9.30am – 12.30pm	Engineering & Robotics, p.27
Mapping Titanic Trees	FSC, Titanic Quarter, Belfast	10am – 12pm	Natural World, p.66
From fossil humans to stone age tools	GAP Building, QUB, Belfast	10am – 1pm	Earth & Elements, p.58
AFBI Research Vessel Open Tours	Titanic Quarter, Belfast	10am – 4pm	Natural World, p.65
My Life With Attenborough	Open University, Belfast	10am – 12pm & 2pm – 4pm	Natural World, p.68
FabLab Open Session	Nerve Centre, Derry/Londonderry	10am – 5pm	Tech & Digital, p.23
Better, Stronger, Faster	W5, Belfast	10am – 6pm	Mind & Body, p.10
BBC Make It Digital	Belfast City Hall	10am – 7pm	Tech & Digital, p.21
Life As An Astronaut	Armagh Planetarium	11am – 4pm	Space, p.18
What's a Millipede Made From?	Ulster Museum, Belfast	11am – 4.30pm	Natural World, p.67
Women in Tech debate	Black Box, Belfast	2pm	Tech & Digital, p.24
The Matrix	Strand Arts Centre, Belfast	4.15pm	Science Communication, p.41

SATURDAY 20 FEBRUARY

Science of the Sea	Titanic Belfast, Belfast	10am – 4pm	Natural World, p.64
Be WOWed By Nature	Window on Wildlife Nature Reserve, Belfast	10am – 4pm	Natural World, p.66
Better, Stronger, Faster	W5, Belfast	10am – 6pm	Mind & Body, p.10
BBC Make It Digital	Titanic Quarter, Belfast	10am – 6pm	Tech & Digital, p.21
Titanic Quarter Little Explorers Trail	Titanic Quarter, Belfast	10.30am – 1.30pm	Engineering & Robotics, p.28
Get Mapping With GAP!	GAP Building, QUB & Botanic Gardens, Belfast	10.30am – 2.30pm	Earth & Elements, p.59

Pick n' Mix Science	Common Grounds Café, Belfast	11am – 12noon	Mind & Body, p.8
Isomorphology drawing workshop	Naughton Gallery, QUB, Belfast	11am – 1pm	Art & Science, p.46
Time Travel	AmmA Centre, Armagh	11am – 3.00pm	Maths & Physics, p.30
The Colour of Science	Various Locations in Derry/ Londonderry	11am – 4pm	Mind & Body
Life As An Astronaut	Armagh Planetarium	11am – 4pm	Space, p.18
Wall-e	Strand Arts Centre, Belfast	12pm	Science Communication, p.41
Lotions, Potions & Explosions	Ulster Museum, Belfast	Show 1. 12.30 Show 2. 2.30	Earth & Elements, p.60
Water by Alok Jha	Crescent Arts Centre, Belfast	1pm – 2pm	Earth & Elements, p.61
Films by Jean Painlevé	Beanbag Cinema, Belfast	2pm – 4pm	Natural World, p.68
How To Survive An Apocalypse	David Keir Building, QUB, Belfast	3pm – 6pm	Science in Society, p.53
Science According to Adventure Time	Strand Arts Centre, Belfast	3.30pm	Science Communication, p.41
Ada. Ada. Ada.	Crescent Arts Centre, Belfast	8pm	Tech & Digital, p.24
Synaesthesia Cocktail Night	Black Box, Belfast	8pm – 10.30pm	Food For Thought, p.35

SUNDAY 21 FEBRUARY

Science of the Sea	Titanic Belfast	10am – 4pm	Natural World, p.64
Physics Busking	St George's Market, Belfast	11am – 3pm	Maths & Physics, p.32
Belfast's Buzzing	Ulster Museum, Belfast	11am – 4.30pm	Natural World, p.69
Isomorphology drawing workshop	Naughton Gallery, Belfast	1pm – 3pm	Art & Science, p.46
Elephant's Toothpaste & Deaf Scientists of the Past - General Admission	W5, Belfast	"Show 1: 2pm Show 2: 4pm"	Science Communication, p.42
Mummy Mania	GAP Building, QUB, Belfast	2pm – 4pm	Earth & Elements, p.58
Sherlock Holmes, CSI & Geology	GAP Building, QUB, Belfast	2pm – 4pm	Earth & Elements, p.60
The Poet & The Poison	Ulster Museum, Belfast	3pm – 5pm	Science in Society, p.53
Down to Earth	Black Box, Belfast	4pm – 5pm	Space, p.15
Tenx9 – Back to the Future	Black Box, Belfast	7pm – 9pm	Science Communication, p.40
Ask For Evidence	The Sunflower Bar, Belfast	8pm – 10pm	Science in Society, p.54

MONDAY 22 FEBRUARY

Grand Challenges for Engineering	UU, Jordanstown	10am – 9pm	Engineering & Robotics, p.26
Seriously Enjoyable Psychology	Whitla Hall, QUB, Belfast	1pm – 5pm	Mind & Body, p.6
Junior steam Academy	Nerve Centre, Derry/Londonderry	4pm – 5.45pm	Tech & Digital, p.23
The Luck Factor with Prof. Richard Wiseman	Whitla Hall, QUB, Belfast	5.30pm – 6.45pm	Mind & Body, p.6
Earth's Climate Evolution - A New Perspective	Ulster Museum, Belfast	6pm – 8pm	Earth & Elements, p.61
Power in Motion [East and South]	Belfast Exposed, Belfast	6.30pm – 9.30pm	Art & Science, p.49
Mensa Quiz	Black Box, Belfast	7.30pm – 10.30pm	Science Communication, p.42

TUESDAY 23 FEBRUARY

In Our Elements: In Touch With Science	Ormeau Road Library, Belfast	2pm – 4pm	Earth & Elements, p.62
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Grand Challenges for Engineering	Ulster University, Jordanstown	10am – 12noon	Engineering & Robotics, p.26
The Great Science Bake Off	The Dark Horse, Belfast	6.30pm – 8pm	Food For Thought, p.36
The Wonderful World of Lieven Scheire	Black Box, Belfast	8pm – 9pm	Maths & Physics, p.31
How Do You Solve A Problem Like Nuclear Power?	Ulster Museum, Belfast	6.30pm – 7.30pm	Maths & Physics, p.32
Curious Communities	Derry & Strabane Cultural Hubs	5pm – 8pm	Mind & Body, p.12
How Smart Is Your City?	The MAC, Belfast	6pm – 8pm	Science in Society, p.54
Open Night at the Planetarium	Armagh Planetarium	7pm – 9pm	Space, p.18

WEDNESDAY 24 FEBRUARY

Open Night at the Planetarium	Armagh Planetarium	7pm – 9pm	Space
Big Data	20 College Green, Belfast	12noon – 2pm	Science in Society
[HE]ARTS of STEM	Ulster University, Belfast Campus	1.15pm – 6pm	Art & Science
After Schools Programme	Nerve Centre, Derry/Londonderry	4pm – 5.45	Tech & Digital
Intro to Digital Fabrication	Nerve Centre, Derry/Londonderry	4pm – 6.45pm	Tech & Digital, p.22
Sir Bernard Crossland Lecture	Riddel Hall, QUB, Belfast	6pm – 7.30pm	Engineering & Robotics, p.27
For The Love of Open Mapping	GAP Building, QUB, Belfast	6pm – 8pm	Earth & Elements, p.59
From Forests to Farmland	Ulster Museum, Belfast	7pm – 8pm	Natural World, p.69
SciComm Cabaret	Black Box, Belfast	7.30pm – 10.00pm	Science Communication, p.39
Recording the 'Race for Space' Album	SARC at Queen's University, Belfast	8pm – 9.30pm	Art & Science, p.50

THURSDAY 25 FEBRUARY

Laser Crafts	Nerve Centre, Derry/Londonderry	2pm – 5pm	Tech & Digital, p.22
Turing Lecture 2016	Belfast City Hall	5.30pm – 8.30pm	Tech & Digital, p.20
From the Cosmos to the City	Ulster Museum, Belfast	7pm – 8.30pm	Science in Society, p.52
Sustainable Gastronomy	The Merchant Hotel, Belfast	7.30pm – 10.30pm	Food For Thought, p.35
Idir iarracht is teip - Between Attempt and Failure	An Chultúrlann, Falls Rd, Belfast	8pm – 9pm	Art & Science, p.45
Level Up Human	Black Box, Belfast	8pm – 10pm	Mind & Body, p.9

FRIDAY 26 FEBRUARY

Science Communication Boot Camp	Black Box, Belfast	10am – 2pm	Science Communication, p.39
[HE]ARTS of STEM	Ulster University, Magee Campus	10am – 5pm	Art & Science, p.47
Blade Runner	Strand Arts Centre, Belfast	4.15pm	Science Communication, p.41
Ugly Animals – General Admission	Titanic Belfast, Belfast	6pm – 7pm	Natural World, p.67
Living on the Planet of the Machines	Ulster University Belfast Campus	6.30pm – 9pm	Engineering and Robotics, p.28
LaTe LaB 2	Ulster Museum, Belfast	7pm – 11pm	Earth & Elements, p.57

SATURDAY 27 FEBRUARY

The Hungry Games	St George's Market, Belfast	10am – 4pm	Food for Thought, p.34
Science of the Sea	Titanic Belfast	10am – 4pm	Natural World, p.64
Space Camp Reunion	Tower Museum, Derry/Londonderry	10am – 4pm	Space
The Science of Photography	Titanic Quarter, Belfast	10.30am – 1.30pm	Art & Science, p.45

Smart Listening	SARC at Queen's University, Belfast	*11am – 1pm 2pm – 4pm*	Art & Science, p.44
Eruptions, Earthquakes & Earth Science Day	Ulster Museum, Belfast	11am – 4pm	Earth & Elements, p.56
The Colour of Science	Foyleside Shopping Centre, Derry	11am – 4pm	Mind & Body, p.12
Power in Motion Exhibition	Belfast Exposed, Belfast	11am – 5pm	Art & Science
Jurassic Park	Strand Arts Centre, Belfast	12pm	Science Communication, p.41
Star Wars at the Planetarium	Armagh Planetarium	12pm, 3pm & 7pm	Space, p.18
Make Your Own Space Rocket	Black Box, Belfast	1pm & 3pm	Space, p.14
Know Your Enemy	QUB Centre of Experimental Medicine, Belfast	1pm – 5pm	Mind & Body, p.8
What They Ate	GAP at QUB, Belfast	2pm – 3.30pm	Food for Thought, p.36
The Celestial Voyage in 3D	Black Box, Belfast	2pm & 4pm	Space, p.14
The Dating Game	GAP at QUB, Belfast	2.30pm – 4pm	Earth & Elements, p.59
Pluto: The Dynamic & Beautiful Dwarf Planet	Queen's University, Belfast	5pm – 6pm	Space, p.15
Inside Nature's Giants	Titanic Belfast	7pm – 8pm	Natural World, p.70
Tales of the Unexpected	Black Box, Belfast	8pm – 10pm	Science Communication, p.40
Exploding Custard	Ebrington Square, Derry	Visit scinnovate.co for times	Food for Thought, p.36

SUNDAY 28 FEBRUARY

Science of the Sea	Titanic Belfast	10am – 4pm	Natural World, p.64
The Hungry Games	St George's Market, Belfast	10am – 4pm	Food for Thought, p.34
Power in Motion Exhibition	Belfast Exposed, Belfast	11am – 5pm	Art & Science
Science of Star Wars	Black Box, Belfast	1pm – 2pm	Space, p.16
The World's Favourite Number with Alex Bellos	The Dark Horse, Belfast	1.30pm – 2.30pm	Maths & Physics, p.30
New Images from Hubble	Ulster Museum, Belfast	1.30pm – 2.30pm & 3.30pm – 4.30pm	Space, p.17
Science of Doctor Who	Black Box, Belfast	3pm – 4pm	Space, p.16
Sexy Science	Black Box, Belfast	3pm – 4.30pm	Mind & Body, p.9
Prof Robert Winston	Whitla Hall, QUB, Belfast	4pm – 6pm	Mind & Body, p.7
Gulp	Crescent Arts Centre, Belfast	8pm – 10pm	Food for Thought, p.34
The Lap Off	Black Box, Belfast	8pm - Late	Tech & Digital, p.23

ONGOING EVENTS

International Images of Science	Millennium Forum, Derry	9am – 5pm	Space, p.50
Alice Clark Exhibition	Titanic Belfast	10am – 5pm	Art & Science, p.44
The Elements: From Actinium to Zirconium	Ulster Museum, Belfast	10am – 5pm	Earth & Elements, p.62
Marine Debris Exhibition	Titanic Belfast	10am – 5pm	Natural World, p.65
Gemma Anderson, Artist in Residence	Naughton Gallery, QUB, , Belfast	11am – 4pm	Art & Science, p.45
Tomorrow's Future Today	Ulster Museum, Belfast	11am – 5pm	Maths & Physics, p.31
Brick Wonders Exhibition	Nerve Centre, Derry/Londonderry	Visit www.scinnovate.co for more details	Art & Science, p.49



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