



# Visitor Guide

## Saturday 20 May



University of  
Central Lancashire  
UCLan

## Lancashire Science Festival

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Share your festival photos and videos with [#LancSciFest](https://twitter.com/LancSciFest)

# Finding venues

**All festival venues can be found using the maps in this guide. View the full festival map on pages 34-35.**

## Help Huts

We have four Help Huts across campus where you can pop along with your queries and our Festival Ambassadors will be able to help you.

## Parking

Please use public transport if possible. A limited amount of free parking is available on the University's car parks. You can ignore any University pay and display machines or permit holder only signs. However, please keep disabled bays free for blue badge holders. If parking in public car parks you must follow their payment requirements. Find out where the University and public car parks are on the festival map (page 34-35).

## Food and drink

Food and drink are available in the Coffee Square and Foster Restaurant (Foster Building), Harrington Kitchen (Harrington Building) and Café 1828 (Student Centre). Our catering outlets only accept card payments. You are welcome to bring packed lunches and we encourage you to bring a water bottle and fill this up at one of the many water fountains across campus. We also have food vendors on the University Square.

## Toilets and baby changing

Male, female and disabled toilet facilities are located in every University building. Gender-neutral toilets are available on the ground floor of the Students' Union Building and EIC Building. We have baby changing facilities and private baby feeding rooms in the Student Centre, Darwin Building (Second Floor, Room 256) and the Oasis Faith and Spirituality Centre. Sir Tom Finney Sports Centre has baby changing facilities.

## Quiet rooms

For groups or individuals with special requirements we have designated quiet rooms away from the noise and crowds in the Oasis Faith and Spirituality Centre and Harris Building, Ground Floor, Room HB009.

## Prayer room

Prayer rooms are available in the Oasis Faith and Spirituality Centre and Harris Building, Ground Floor, Room HB003.

## First aid

There are three first aid points; these are located at Sir Tom Finney Sports Centre, Harrington Building and in the Student Centre Building. You can also visit one of our Help Huts to request first aid or speak to any of our Festival Ambassadors. If you are unable to contact anyone, please call **01772 894288** for assistance, and a member of the festival events team will request a first aider to your location.

## Prams/Pushchairs

Please be aware you may be asked to leave your pram/pushchair in foyer spaces outside of our Showrooms. Please ask festival staff before entering your show.

## Missing children

Safety ID wrist bands are available for all children at check-in. You can write an adult's name and phone number on the band and put this on your child's wrist. Please ask if you require one. If you discover your child is missing, please alert a Festival Ambassador (wearing yellow t-shirts) who will be able to assist you. Alternatively, call **01772 894288** and support will be dispatched to your location.

## Accessibility bus

Two accessibility buses have been provided to assist those that require mobility support between the Blue Zone and the Green Zone. The Blue Zone bus stop can be found on Leighton Street, behind Foster Building. The Green Zone bus stop can be found on Adelphi Street, behind Victoria Building - see the festival map (pages 34-35). A bus will leave from each bus stop every 30 minutes starting at 9.30am. The last bus will depart at 4.00pm. Each bus has space for one wheelchair. Prams can be taken on the bus, but they must be folded.



Please return your festival lanyard using the lanyard bins located around the festival

# Competition time!



Share your festival photos and videos with #LancSciFest on social media to enter our exciting competition.

We have two family passes for Blackpool Pleasure Beach up for grabs for the winners. Share on social media with our hashtag, and don't forget to tag us #LancSciFest

Terms and conditions available on our festival website [lancashiresciencefestival.co.uk](http://lancashiresciencefestival.co.uk)

# Visitor Information

Opening times 9.00am-4.00pm

Check-in open 9.00am-3.15pm

Showfloors open at 9.00am

Shows and workshops start at 10.00am

## Join the conversation [#LancSciFest](#)

**There is so much to discover across the festival. Take a look at our zone programmes for venues and timings to plan your day.**

Take a seat in a **Show** for a live performance or demonstration. There may even be a chance for you to get involved! Take part in one of our many **Drop-in** sessions and **Workshops** to discover something new or get hands-on with an experiment. Visit our three **Science Showfloors**, full of exciting activities the whole family can enjoy.

If you need any help, look out for our Festival Ambassadors or visit one of our four Help Huts.

### Shows

- You do not need to pre-book; please arrive at the venue **15 minutes** before the start time to receive a queue number.
- Queue numbers will be issued on a first come, first served basis, which will guarantee you entry to the show.
- Entry will close 5 minutes before the advertised start time.
- Shows last up to 60 minutes and are not suitable for children under 4 years of age. Please check the age guidance as some shows may have a higher minimum age.
- We cannot store prams or pushchairs in lecture theatres where shows take place, as we need to ensure all fire exits are clear.

### Drop-ins and Science Showfloors

- You do not need to pre-book; check out our zone programmes for venues and timings.
- There may be a short wait for some activities at busy times.

### Workshops

- All workshop sessions have been fully pre-booked with no additional places available today.
- If you have pre-booked a workshop, please arrive at the venue at least 5 minutes before the advertised start time. Late arrivals may not be admitted.

### Age group guidance

- U** Family friendly sessions for all to enjoy
- 4+** Lots of fun for children who are beginning school
- 6+** Fun and engaging; content may be too advanced for younger children
- 11+** These advanced sessions are aimed at older children who are at, or about to start, secondary school
- 16+** These advanced sessions are aimed at teenagers and adults



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## Accessible venues

All buildings and rooms are accessible and have reserved areas for visitors with mobility issues. If you require assistance, please speak to a Festival Ambassador.

## British Sign Language (BSL) interpreters

Please make us aware at check-in if you have requested an interpreter or call **01772 894288** on arrival.

## Festival Ambassadors

Our Festival Ambassadors are here to help you have a great day and answer any questions you may have.

## Free Wi-Fi

To log on select 'UCLan-Open' and sign in using your email address. Share your conversations, photos and videos with **#LancSciFest** for a chance to win a Blackpool Pleasure Beach Family Pass.

Find out more and see terms and conditions at [uclan.ac.uk/lancashire-science-festival/faqs](https://uclan.ac.uk/lancashire-science-festival/faqs)

## Hearing system provision

Infrared hearing systems are in place in 10 of our main lecture theatres. To access the system, hearing aid or cochlear implant users will require a receiver device. Please speak to a Festival Ambassador at check-in for further information.

## Photography and filming

Please be aware that throughout the duration of the festival there will be official photography and filming taking place for marketing and promotion of the Lancashire Science Festival, the University, partner institutions and the festival sponsors. Images or footage may be used in both online and offline publications, public relations and advertising (including social media, brochures, information leaflets, adverts and posters). If, for whatever reason, you or a member of your group does not wish to be filmed or photographed please make yourself known to the person filming or photographing in the area you are in. For more information, please contact [lancscifest@uclan.ac.uk](mailto:lancscifest@uclan.ac.uk) or **01772 894288** on the day.

## Wellbeing Ambassadors

Please make us aware at check-in if you have requested a Wellbeing Ambassador who will provide you with one-to-one support during your visit or call **01772 894288** on arrival.

# Blue Zone Programme of Events

U Age group guidance    Showfloor / Drop-in    Workshop (pre-booked)    Show

LOCATION	10.00-10.30am	10.30-11.00am	11.00-11.30am	11.30am-12 noon	12 noon-12.30pm	12.30-1.00pm	1.00-1.30pm	1.30-2.00pm	2.00-2.30pm	2.30-3.00pm	3.00-3.30pm	3.30-4.00pm
Darwin Lecture Theatre	This is Amazing Chemistry 6+			This is Amazing Chemistry 6+				Apollo 13: Lucky for Some 6+			Mission to Mars 6+	
Young Scientist Centre		Tour the Solar System 7+					Tour the Solar System 7+				Tour the Solar System 7+	
Darwin Building Room 247		Crash and Bang - Sounds, Forces and Stone Tool Making 6+				Crash and Bang - Sounds, Forces and Stone Tool Making 6+				Crash and Bang - Sounds, Forces and Stone Tool Making 6+		
Darwin Building Room 254		Unmasked: The Science of Superheroes 4+			Unmasked: The Science... 4+			Unmasked: The Science of Superheroes 4+				
Harris Building Room 155							Climate Change Letters 16+					
Foster Lecture Theatre 2		The Ugly Animal Show 6+			The Ugly Animal Show 6+						The Ugly Animal Show 6+	
Foster Lecture Theatre 3		Nanoinvasion 6+			Nanoinvasion 6+			Nanoinvasion 6+				
Foster Lecture Theatre 4		Bubble Science Show 4+			Bubble Science Show 4+			Bubble Science Show 4+				
Mitchell & Kenyon Lecture Theatre	Maths, Disney and Pixar 6+				Airbags, Clothes and Chemistry 11+			Engineering Humans 11+			Engineering Humans 11+	
Maudland Building Room 108		Potted Prehistory 6+				Potted Prehistory 6+						
Maudland Building Room 315		Making Syrup 6+			Making Cream 6+							
EIC Room 111 / 114						Bright BSL Signs for Science 6+				Bright BSL Signs for Science 6+		
EIC Room 315		The Birdman 4+			The Birdman 4+			The Birdman 4+				
EIC Room 317		Electricity North West - Spark Your Curiosity 6+				Electricity North West - Spark Your Curiosity 6+				Electricity North West - Spark Your Curiosity 6+		
EIC Room 313	Fire Lab 6+							Fire Lab 6+				
Sir Tom Finney Sports Centre	Science Showfloor - Drop-in 10.00am-4.00pm											
Foster Social Space	Science Showfloor - Drop-in 10.00am-4.00pm											
Scholars Restaurant	From the Earth to the Sun - Drop-in 10.00am-4.00pm U											
Foster Square	The Eyes as Windows into the Brain - Drop-in 10.00am-4.00pm 6+											
EIC Room 211	3D Printing the Future - Drop-in 10.00am-4.00pm U											
EIC Room 113	Global Sound Movement - Drop-in 10.00am-4.00pm U											
	10.00-10.30am	10.30-11.00am	11.00-11.30am	11.30am-12 noon	12 noon-12.30pm	12.30-1.00pm	1.00-1.30pm	1.30-2.00pm	2.00-2.30pm	2.30-3.00pm	3.00-3.30pm	3.30-4.00pm

# Blue Zone

## Sir Tom Finney Sports Centre Science Showfloor

**Packed with exciting interactive activities the whole family can enjoy.**

**Venue: Sir Tom Finney Sports Centre (Lower Ground Floor)**

**Times: 9.00am-4.00pm (last entry 3.45pm)**

### AMRC NW - Where digital meets manufacturing

Stop off at the AMRC NW stand to interact with the latest in robotics technology, get hands-on experience of what it is like to work with robots and how they can make our lives easier and more efficient. Build Lego models following instructions from an intelligent AI that will guide you step by step to build your model in the most effective and efficient way. Get to learn how computers can see and even smell, with a variety of sensors that can judge things like air quality in a building.

### Anatomy Identification - UCLan School of Medicine

Come visit Anatomy Identification and get hands-on and identify the organs. Compare them to our anatomy model to figure out the function of the organ. Identify the joints and bones that make you up by visualising with our skeleton on a stand.

### Brain Games

In this exhibit, we showcase research at the Developmental Cognitive Neuroscience (DCN) Lab at the School of Psychology, University of Central Lancashire. Visit our exhibit to find out more about the human brain and how the brain works when young people are doing tasks, such as trying to work out how other people are feeling. Visit our exhibit to discover exciting research with children and young people unveiling the mysteries of the brain!



### Star Wars - 99th Garrison

Get up close and personal with some of your favourite Star Wars characters. Pose for pictures with jedi, stormtroopers, and more! Keep a look out for members of the 99th Garrison as you explore the festival and consider a donation for the Cystic Fibrosis Trust. Charity number (England and Wales): 1079049

### Photo Opportunity with Star Wars 99th Garrison

**Venue: Foster Square  
10.30am and 2.30pm**

### Can You Be a Dentist? - UCLan School of Dentistry

Could you be a dentist? Can you work backwards using a mirror? Do you have manual dexterity? Can you advise your patients about foods that are bad for their teeth? Come and find out!

### EDF Energy Heysham Power Stations 1 and 2

EDF Energy Heysham 1 and 2 power stations offer a range of careers in STEM subject areas. The Heysham EDF energy site is unique due to having two power stations directly next to each other on the same site. The station welcomes people to apply for careers in engineering and many more nuclear areas!

### Electricity North West

Spark your curiosity about the world around you and explore how electricity works in your everyday life. Come and join the team at Electricity North West and learn about electrical circuits, why it's important to save electricity, and how to stay safe around electricity and electrical assets.

# Join the conversation #LancSciFest

## Eric Wright Group

Visit the Eric Wright Group stand to explore construction and engineering. Test your skills and knowledge with hands-on building experiences, quiz questions and fascinating facts.

## Fighting Deadly Fungi

When you think of deadly infections, fungi might not be the first thing that pops into your head. But the threat of deadly fungal infection is on the rise. Our stand will explain why some fungal infections are so dangerous and others aren't, what factors are making this a growing threat and what the Manchester Fungal Infection Group are doing to help fight these nasty infections. You will be able to get up close to some of the most important (and safe) fungal species in science, like Penicillium that lead to the development of modern antibiotics. Take part in interactive activities that help you discover how humans contribute to the rise in infection and why they can be so hard to cure. With the help of real scientists identify microbes under a microscope or make clay models of a fungus of your own creation.

## Fun with Nutrition and Exercise Science - UCLan School of Sport and Health Sciences

Exercise science is fun! How good is your jump? How high can you jump? Can you top our leaderboard? Discover the science behind nutrition with interactive games. Can you match the sugar to the snack? #NutritionIsAScience

## Guts UK Charity

Guts UK is the charity for the whole digestive system from top to tail. Visit our stand to walk through our humongous incredible inflatable colon, Colin the colon! If you're brave enough to walk through Colin the colon, you can proudly wear his sticker. We also have a real toilet full of surprises, plenty of poo emojis and a whole knitted digestive system. We may even be dressed up as poo! We'd love to meet you and welcome you to the fascinating world inside of you.

## Institution of Chemical Engineers, North Lancashire Members Group

Have you ever wondered how everyday items from chocolate to tyres are made, and what jet fuel and baked beans have in common? At the IChemE stand you will find out about the chemicals industry, and what you would do if you were a Chemical Engineer for the day! IChemE supports people working in the chemical, energy, oil and gas, food and renewables sectors, and you can find out about them all at our stand. Whether you want to know how your favourite food is made, or how to begin a career in the chemicals industry, the IChemE stand can help!

## Institution of Engineering and Technology (IET)

The Institute of Engineering and Technology has over 169,000 members around the world, in disciplines covering communications, transport, manufacturing and even the energy industry. We aim to inspire and inform the people who are affected by engineering, and that's everyone. Head over to our stand for some fun hands-on activities that can get anyone into engineering.

## Institution of Mechanical Engineers - Improving the World Through Engineering

Discover the exciting world of mechanical engineering and how it affects everyone's lives and everything around you, from designing racing cars to being cooled by an inherently safe domestic fan. Also, see how Sterling's 19th century technology can be reinvented in the 21st century to supply free energy, and how you can boil water at room temperature!

# Competition time!



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# Blue Zone

Sir Tom Finney Sports Centre  
Science Showfloor (continued):

## Lancashire Archives - Lancashire County Council: What Does Science Have to Do with Archives?

Archives and science have more in common than you think! Whether it's the archives of scientific research, the science in archives or the processes involved in the physical material used to create them, science and historic records, or archives, are inextricably linked. Find out more with Lancashire Archives.

## Placental Function: Nutrient Transport for Fetal Development

Come learn about the cycle of life in animals and humans with fetal nutrition. The function of placenta is to transfer nutrients from the maternal blood circulation to the baby for its growth. The impairment of placenta can lead to fetal growth restriction. Be an active placenta and find out how many nutrients can you transfer in 30 seconds!

## Raytheon UK - Coding and Computing

Raytheon is invested in the British workforce and development of UK technology, across the country the company employs over 2,000 people. They continue to invest in research and development supporting innovation and technological advancement across the country. Learn about the basics of codebreaking and binary with coding cupcakes, all to develop an understanding of computing.

## Royal Society of Chemistry - Lancashire Local Section

Take part in our global battery experiment and explore the science behind batteries and why they are such an important part of our bright energy future. We have disposable batteries like the ones we see in remotes and toys, then we have the rechargeable batteries that are in phones, tablets and electric vehicles. But to run our homes and other buildings free from fossil fuels we need much bigger and better batteries, and more scientists to develop them.

## Sika Limited: The Science Behind Construction Materials

Find out about the scientific techniques and equipment used to test the materials in the buildings all around us. Learn how and why we test properties such as stretch, squish and slip, how we apply fair tests and how the tests relate to theories such as friction.

## Tick Talk

Tick Talk will provide interactive activities to learn about ticks and tickborne diseases, how to look out for them, how to remove them, how to prevent getting them. Activities will include microscopy, scientific drawing and colouring for younger visitors, and the world famous 'Pick-a-tick' tombola to win a gift. There will be prizes for the best scientific drawing (age 9 and above) and colouring (for under 9).

## Training Your Brain

Can you ace a memory test? Do you think you will fall for optical illusions? Come to the British Neuroscience Association stand and learn more about the different types of memory and just how complex the brain is. Also get the chance to see a real preserved brain in person and if you have time maybe a quick dissection?

## Veterinary Science - Planet Vet

Meet the team from the new UCLan School of Veterinary Medicine and explore the exciting world of veterinary science.

Animals play a vital part in the world around us. As humans, we have a collective responsibility to make sure these animals have good lives, so there are lots of exciting ways that veterinary scientists can make a difference.

Visit our anatomy area and examine the skulls of different animals to determine how animal's lives and behaviour are shaped by their environment. Speak to our experts and discover fascinating facts on how veterinary scientists are helping bears, donkeys, vampire bats, whales and many other animals' lives. Delve into the world of diagnostic imaging and see how veterinarians use the latest advances in technology to look inside the bodies of animals, without the need for surgery. Enjoy fun hands-on activities for pre-school aged children and above, or just chat to our friendly team about what makes veterinary science exciting, rewarding and most of all, great fun!

## Vision to Fly 2.0

Come to the School of Engineering's stall to experience Vision to Fly 2.0 activities linked to aerospace engineering and understand how unmanned aerial vehicles (UAV) can be used for multiple applications. Virtually pilot a Cessna 172 on a flight, test your ability to fly a drone through multiple hoops while avoiding obstacles. Perform a precision drop of a very important ping-pong ball while dodging obstacles.

## Foster Science Showfloor

**Venue: Foster Social Space (Ground Floor)**

**Times: 9.00am-4.00pm (last entry 3.45pm)**

### Astronomy VR Experience

Fly round a galaxy, pilot a Saturn V rocket, perform space walks around the International Space Station and even walk on the Moon as Neil Armstrong, with VR headsets transporting you to a virtual reality environment where you can become an astronaut!

### Hand Washing and Health Check

The School of Pharmacy and Biomedical Sciences brings you a stall all about hygiene and keeping yourself protected from infections from nasty bugs. Visit our stall to test how well you actually clean your hands with our specialised wash visualisation station, and get pointers on what you need to do to improve.

### Last Hunters and First Farmers in Lancashire

Major new excavations at Windy Harbour, near Blackpool, have provided exciting new evidence about what happened nearly 6,000 years ago as the last hunter-gatherers and first farmers occupied the Fylde. This hands-on stand will explore what people ate, made and did at this important transition in prehistory with activities suitable for a variety of ages. UCLan Archaeologists and staff from Oxford Archaeology will be on hand to explain lots of newly discovered evidence. Try your hand at identifying evidence through a microscope, fitting prehistoric stone tools together and see if you can work out what hunter-gatherers or farmers could have had for breakfast 6,000 years ago. We will also have stone tools and pottery available on the stand for visitors to handle.

### Lancashire Forensic Science Academy

Ever wanted to be a crime scene investigator? Want to find out how forensic scientists find evidence and solve crimes? Come along to the Lancashire Forensic Science Academy stall to find out! See if you can find the suspect from the footwear marks left at a crime scene, or match fingerprint types. How well do you know the human skeleton - where do the bones go? Dig for clues in our soil pit! We also have a fiendish treasure hunt to test your detective skills! Come along and try your luck as a forensic scientist or crime scene investigator!

### Liverpool Astronomical Society

Come and meet members of the Liverpool Astronomical Society, safely observe sun spots and prominences on the sun through a Solarscope. Discuss anything astronomy or space with us. Activities and displays on the day.

### Molecules: The Invisible Witnesses on the Crime Scene

An interactive exhibit, to provoke discussion and demonstrate how we evaluate biological age and how these assessments can be used for health research (to improve life and health span predictions), for forensic applications (to help solve crime), and for archaeology (to understand the lives and health of our ancestors).



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# Blue Zone

Foster Science Showfloor (continued):

## Mars Rover: Learn How to Drive a Rover on Mars!

Sit in a mock-up NASA Mission Control and take part in this world-first activity where you will learn all about Mars exploration while sending commands to a robotic rover over the internet to explore and complete tasks on a realistic model of a Martian surface. You will have to use the rover-mounted webcams, grabbing claw and tank tracks to complete your tasks.

## Nano-water Technology - UCLan Natural Sciences

80% of our total reported diseases across the globe are caused by contaminated drinking water. From nuclear waste to arsenic, the pollution of water that people rely on for drinking has devastating consequences. Discover the power of nanomaterials and how scientists at UCLan are working towards a solution for this global problem. We will demonstrate a simple one step separation technology using nanomaterials with magnetic properties!

## PADAS (Preston and District Astronomical Society)

Preston and District Astronomical Society is a friendly group of amateur astronomers that is welcoming to all. They have a rich local history dating back to the formation of the Preston Scientific Society in 1876. Head to the stand to use a telescope to safely observe the Sun, learn more about meteorites and get the opportunity to touch one.



## Smart Seas

Come and find out how we have been working with over 200 children in Lancashire to explore how to improve the health of our oceans - explore big data, small organisms and fabulous designs with our interactive exploration of all that the oceans have to offer. The Royal Academy of Engineering has funded this project and we are now bringing it to children and families across the region to raise awareness of the small things we can do that can make a big difference. Meet our robot guide, our interactive activities and our gallery of ideas and play games designed by children to teach you about ocean health.

## University of Central Lancashire Computer Science

Solve our Cyber Cipher Boxes. Are you able to crack our codes, decipher our devious patterns and win prizes?

# Competition time!



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Terms and conditions available on our festival website [lancshiresciencefestival.co.uk](http://lancshiresciencefestival.co.uk)

## Drop-ins

**Discover something new or get hands-on with an experiment.**

**Unless stated otherwise, these sessions are available for you to drop-in throughout the day.**

### From the Earth to the Sun (U)

**Venue:** Scholars Restaurant, Foster Building, Ground Floor

**Times:** 9.00am - 4.00pm

An immersive 18-minute-long visual experience using real NASA footage of our solar neighbour set to a commissioned piece of music. The aim is to inspire, to allow everyone to emotionally engage with the power and glorious majesty of the Sun, and, through different space-based solar observations of the hot, electrified gases, to see our closest star in a completely new light.

### Global Sound Movement (U)

**Venue:** Engineering and Innovation Centre Building, First Floor, Room 113

**Times:** 10.00am - 4.00pm

'Hidden Melodies' - Hundreds of stalactites have formed over the past millennia within the caves and chasms of the Rock of Gibraltar. Each are a different size and each uniquely resonate. Using new technology and developing digital audio workstations, the GSM have created a virtual 'lithophone' - a musical instrument made from natural stone or rock. This exhibition showcases the hidden sounds of the Rock of Gibraltar, allowing the audience to compose music with the stalactites and stalagmites of Lower St Michael's Cave, and sonically place them in and around different parts of the Rock itself. Through this interactive installation it will be possible for the audience to compose music and hear how this unique instrument would sound if played in the World War 2 Tunnels deep within the Rock of Gibraltar, or even in Moorish Castle which is outside of the caves.

### The Eyes as Windows into the Brain (6+)

**Venue:** Foster Square

**Times:** 9.00am - 4.00pm

Visit the brand new Mobile Research Unit to explore the relationship between your eye movements and how your brain processes information during different everyday tasks. We will be demonstrating this using fun experimental tasks like playing 'Where's Wally?'. We will record your eye movements while you complete the tasks using our state-of-the-art portable eye-tracking equipment - showing how your eyes really are a window into the brain.

### 3D Printing the Future (U)

**Venue:** Engineering Innovation Centre Building, Second Floor, Room 211

**Times:** 10.00am - 4.00pm

Come and see the future of engineering manufacturing and design.

We will be demonstrating a range of 3D printing technologies including clay printing, drone printing and carbon fibre reinforced printing. Learn how 3D scanning works and how 3D printing has a whole range of applications, from medical implants and dentistry to jewellery and spaceships.

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## Shows

**Take a seat and enjoy a live performance or demonstration.**

**You do not need to pre-book; please arrive at the venue 15 minutes before the start time to receive a queue number.**

### Airbags, Clothes and Chemistry (11+)

**Venue:** Foster Building, Mitchell and Kenyon Lecture Theatre (Ground Floor)

**Times:** 12 noon - 1.00pm

Chemistry is at the centre of all 21st century advancements, but it is so engrained within society it mostly goes unnoticed or worse still, it is lost in the shadow cast by another scientific discipline. In this talk, Will Stockburn will explore the unlikely, the obvious and the surprising applications of the science of chemistry and how it continues to shape our lives.

### Apollo 13: Lucky for Some? (6+)

**Venue:** Darwin Building, Darwin Lecture Theatre (Ground Floor)

**Times:** 1.30pm - 2.30pm

Travel back in time with Dr Kevin Bowman to investigate one of the greatest rescue missions ever attempted in the history of mankind. What really happened and why?

With every decision becoming a matter of life and death, you will discover how Mission Control put together a plan in a desperate attempt to save the lives of the crew of Apollo 13.

### Bubble Science Show (4+)

**Venue:** Foster Building, Lecture Theatre 4 (Ground Floor)

**Times:** 10.45 - 11.45am, 12.30 - 1.30pm, 2.30 - 3.30pm

Did you know it's possible to make a square bubble? That soap films can hold their structure despite being 100 times thinner than a piece of paper? Or that bubbles could power the world? How did an American man make a bubble that lasted for 340 days?

Join our unique interactive bubble science show, which combines entertainment with education to make an unforgettable, informative and wondrous hour of STEM edutainment. Over 20 years of performing with bubbles, our team of Bubbleologists have perfected their skills to create a visually incredible hour of fun and colour.

### Engineering Humans (11+)

**Venue:** Foster Building, Mitchell and Kenyon Lecture Theatre (Ground Floor)

**Times:** 1.30 - 2.30pm, 3.00 - 4.00pm

Technology has moved on leaps and bounds over the past 60 years. The world of science and engineering has been able to send a robot to Mars right through to making artificial machines that learn like we do. Out of these amazing endeavours we now have been able to use this to engineer humans, from wearable robotic arms through to wearable robotic suits that can help us, protect us and even make us feel better. These are known as exoskeletons. Join Matt in an amazing talk "Engineering Humans" where we will examine the use of exoskeletons in a whole range of different environments, including demonstrations of exoskeletons to show you how they work.

### Maths, Disney and Pixar (6+)

**Venue:** Foster Building, Mitchell and Kenyon Lecture Theatre (Ground Floor)

**Times:** 10.00 - 11.00am

Find out how some of your favourite Disney and Pixar movies could not exist without maths, with Dr Kevin Bowman. He will also show you some of the other amazing uses that maths has in the world around us.

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# Join the conversation #LancSciFest

## Mission to Mars (6+)

**Venue:** Darwin Building,  
Darwin Lecture Theatre (Ground Floor)

**Times:** 3.00 - 4.00pm

What does it take to get humans to Mars and what would it be like to go on such a mission?

In "Mission to Mars" Dr Kevin Bowman explains the challenges involved and how they can be overcome using maths and science. On the giant two-storey screen you will also see what an astronaut would experience as the epic adventure is brought to life. 3D glasses will be provided.

## Nanoinvasion (6+)

**Venue:** Foster Building, Lecture Theatre 3 (Ground Floor)

**Times:** 10.30 - 11.30am, 12.15 - 1.15pm, 2.15 - 3.15pm

All around us, a hidden world is taking over. It is a strange alien world where nothing is as it seems - the world of nanotechnology. Join materials scientist Dr Jamie Gallagher as we shrink down and get hands-on with the tiny tech that is changing our phones, food, sport and health. Delve into a world where pencils are stronger than steel, metal becomes transparent, and robots become doctors.

## The Birdman (4+)

**Venue:** Engineering Innovation Centre Building,  
Third Floor, Room 315

**Times:** 10.30 - 11.30am, 12.30 - 1.30pm, 2.30 - 3.30pm

Join Alan Ames, The Birdman, and his awe-inspiring birds of prey to explore the wonders of adaptation and natural sustainability. Watch science come to life with these fantastic birds. The Birdman has spent his whole life pursuing his passion for nature and has developed a real understanding of natural sustainability and ecosystems through his time spent with the Baka people of the Cameroon Rainforest. He can't wait to share his knowledge with you.

## The Ugly Animal Show (6+)

**Venue:** Foster Building, Lecture Theatre 2 (Ground Floor)

**Times:** 10.15 - 11.15am, 11.45am - 2.45pm,  
3.00 - 4.00pm

From fish that use sickening slime as defence to sea cucumbers that fight with their bum, our seas are full of some of the strangest animals in the world. Join biologist and presenter Simon Watt to hear how to help these creatures and enable our planet to survive.

## This is Amazing Chemistry (6+)

**Venue:** Darwin Building,  
Darwin Lecture Theatre (Ground Floor)

**Times:** 10.00 - 11.00am, 11.30am - 12.30pm

A showcase of our favourite demonstrations by Dr Anna Kirkham and students from Forensic Science. Prepare for your senses to be overloaded and your enthusiasm for chemistry to be ignited.

We will introduce you to the amazing world of chemistry through a range of demonstrations, including chemical clocks, cold light, fire, whoosh bottles and many more.

**Please be aware that there will be bright flashes during some of the demonstrations.**

## Unmasked: The Science of Superheroes - Superhero Brains and Bodies (4+)

**Venue:** Darwin Building, Second Floor, Room 254

**Times:** 10.30 - 11.30am, 12 noon - 1.00pm, 2.00 - 3.00pm

Come along and join Dr Sarita Robinson and Dr Cat Tennick as they explore how the brains and bodies of our favourite superheroes work. Based on the book *Unmasked: The Science of Superheroes*. Sarita and Cat will invite the audience to test out their own superpowers before discussing the science behind special powers.

# Competition time!



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Terms and conditions available on our festival website [lancashiresciencefestival.co.uk](http://lancashiresciencefestival.co.uk)

# Blue Zone

## Workshops

**All our workshops are fully booked today. If you have pre-booked on to a workshop, please arrive at the venue at least 5 minutes before the advertised start time.**

**Late arrivals may not be admitted.**

### Bright BSL Signs for Science (U)

**Venue:** Engineering and Innovation Centre Building, First Floor, Room 111/114

**Times:** 12.30 - 1.30pm, 2.30 - 3.30pm

Join our BSL team for a whole host of interactive and hands-on activities to learn BSL signs for colour, numbers, animals, weather and our feelings. Learning BSL signs and fingerspelling is brilliant!

### Crash and Bang - Sounds, Forces and Stone Tool Making (6+)

**Venue:** Darwin Building, Second Floor, Room 247

**Times:** 10.45 - 11.45am, 12.15 - 1.15pm, 2.15 - 3.15pm

With a crash and a bang, stone tools have been made and used for thousands of years! In the Neolithic, 6,000 years ago, the making of stone tools were part of a way of life radically different from anything that had come before. Have you ever wondered how stone tools were made?

After a short but sweet introduction into the sounds and forces used in making stone tools you will get the chance to put your own skills to the test by making your very own versions of stone tools.

### Electricity North West - Spark Your Curiosity (6+)

**Venue:** Engineering Innovation Centre Building, Third Floor, Room 317

**Times:** 10.30 - 11.30am, 12.30 - 1.30pm, 2.15 - 3.15pm

From our phones to the lighting of our homes - we are surrounded by electrical circuits all the time.

How much do you know about this hidden world of electricity? In this workshop you will learn the basics of electricity, sustainability and staying safe.

### Fire Lab (6+)

**Venue:** Engineering Innovation Centre Building, Third Floor, Room 313

**Times:** 10.00 - 11.00am, 1.30 - 2.30pm

Join us to learn how materials burn and how we can change the way they burn. You will learn how to use a thermal imaging camera and witness the creation of a real fire tornado in our state-of-the-art fire lab!

### Making Cream (6+)

**Venue:** Maudland Building, Third Floor, Room 315

**Times:** 1.00 - 1.45pm

Join our workshop to come and make your own medicated cream, just like a pharmacist would do.

### Making Syrup (6+)

**Venue:** Maudland Building, Third Floor, Room 315

**Times:** 10.30 - 11.45am

Come and join our workshop to get the opportunity to produce syrup medication, just like a pharmacist does.

## Competition time!



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# Join the conversation #LancSciFest



## Potted Prehistory (6+)

**Venue:** Maudland Building, First Floor, Room 108

**Times:** 10.30 - 11.30am, 12.30 - 1.30pm

Pottery was first made in Britain 6,000 years ago. This new material would have a radical effect on how people lived their lives. You will be able to handle replicas of bowls made by people that lived back in the Neolithic period of the stone age. You will then be challenged to make your own Neolithic bowl with help from experienced potters and archaeologists. If you were a hunter-gatherer or an early farmer, how do you think using pottery would have changed how you lived?

## Tour the Solar System (7+)

**Venue:** Darwin Building, Ground Floor, Young Scientist Centre

**Times:** 10.30 - 11.30am, 1.00 - 2.00pm, 3.00 - 4.00pm

Come and take a tour of our Solar System while constructing your own model to show the relative distances of objects in it. At different stops along the tour, you will learn about conditions on the planets and see some exciting demonstrations to help you understand them.

## Writing Climate Change Letters (16+)

**Venue:** Harris Building, First Floor, Room 155

**Times:** 10.45 - 11.45am, 12.15 - 1.15pm, 2.15 - 3.15pm

Passionate about climate change? Join us to write a climate change letter! You can write to a politician, the CEO of an oil company, a child, your grandparents or your best friend...get creative!

If you want to, you can even post your letter on Twitter or Instagram! Writer Yvonne Reddick and environmental social scientist John Whitton will tell us all about climate change, show us some examples of climate change letters, and guide us through the process of writing our own. You can write your letter just for yourself, or you might want to send it out into the world!



# Orange Zone Programme of Events

U Age group guidance

Workshop (pre-booked)

Show

LOCATION	10.00-10.30am	10.30-11.00am	11.00-11.30am	11.30am-12 noon	12 noon-12.30pm	12.30-1.00pm	1.00-1.30pm	1.30-2.00pm	2.00-2.30pm	2.30-3.00pm	3.00-3.30pm	3.30-4.00pm
Adelphi Building Lecture Theatre 1				Izzy's Incredible Adventure 4+			Izzy's Incredible Adventure 4+				Izzy's Incredible Adventure 4+	
Adelphi Building Lecture Theatre 2		Air - How Do We Know It's There? 4+			Air - How Do We Know It's There? 4+			Air - How Do We Know It's There? 4+				
Adelphi Building Lecture Theatre 4		Surprising Science 6+				Surprising Science 6+					Surprising Science 6+	
Media Factory Room 002			Juanita's Big Problem 4+			Juanita's Big Problem 4+					Juanita's Big Problem 4+	
Media Factory Room 020	Everybody Dance 6+			Everybody Dance 6+			Everybody Dance 6+					
	10.00-10.30am	10.30-11.00am	11.00-11.30am	11.30am-12 noon	12 noon-12.30pm	12.30-1.00pm	1.00-1.30pm	1.30-2.00pm	2.00-2.30pm	2.30-3.00pm	3.00-3.30pm	3.30-4.00pm



# Orange Zone

## Shows

**Take a seat and enjoy a live performance or demonstration.**

**You do not need to pre-book; please arrive at the venue 15 minutes before the start time to receive a queue number.**

### Air - How Do We Know It's There? (4+)

**Venue:** Adelphi Building, First Floor, Lecture Theatre 2

**Times:** 10.30 - 11.30am, 12.45 - 1.45pm, 3.00 - 4.00pm

Dr Sarah Bearchell takes you on a multisensory journey to touch, hear, see, smell, and taste the air around us. We'll be gathering the proof that air is there.

### Izzy's Incredible Adventure (4+)

**Venue:** Adelphi Building, Ground Floor, Lecture Theatre 1

**Times:** 11.30am - 12.30pm, 1.00-2.00pm, 2.45 - 3.45pm

Meet Izzy. She's on an adventure to see a friend but needs lots of help to get there! Can you help her?

What types of shapes make a boat float the best? And do you know how a hot air balloon flies? Explore Izzy's explosive rocket, and ride a real hovercraft in this interactive show where we all help Izzy get across land, sea and air.

### Juanita's Big Problem (4+)

**Venue:** Media Factory, Ground Floor, Room 002

**Times:** 11.00 - 11.45am, 12.45 - 1.30pm, 2.45 - 3.30pm

We have to listen to Juanita's Big Problem - because it's time we cleaned up our act! In this interactive, environmental show by a leading female clown, you will assist Juanita on her quest for a plastic-free world.

### Surprising Science (6+)

**Venue:** Adelphi Building, First Floor, Lecture Theatre 4

**Times:** 10.30 - 11.30am, 12 noon-1.00pm, 1.30 - 2.30pm

Join Dr Matt, the Science Magician, in a show packed with science tricks, playful illusions, and crazy contraptions. Defying gravity, invisibility cloaks, and vanishing elephants. Can you discover the sneaky scientific secrets behind the surprising illusions that use everyday household objects? You will go away with a bundle of wonderful ideas to explore further at home.

## Workshops

**All our workshops are fully booked today. If you have pre-booked on to a workshop, please arrive at the venue at least 5 minutes before the advertised start time.**

**Late arrivals may not be admitted.**

### Everybody Dance (6+)

**Venue:** Media Factory, Ground Floor, Room 022

**Times:** 10.00- 10.45am, 11.30am - 12.15pm, 1.15 - 2.00pm

At DanceSyndrome we believe that everybody can dance and that there is no right or wrong way to move. Come and join us for a fun filled workshop where we will explore how our bodies can pop and fizzle like a science experiment and we might even travel into space. All our sessions are fully inclusive and led by a professional dance artist and dance leader with a disability.

## Competition time!



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# Join the conversation #LancSciFest

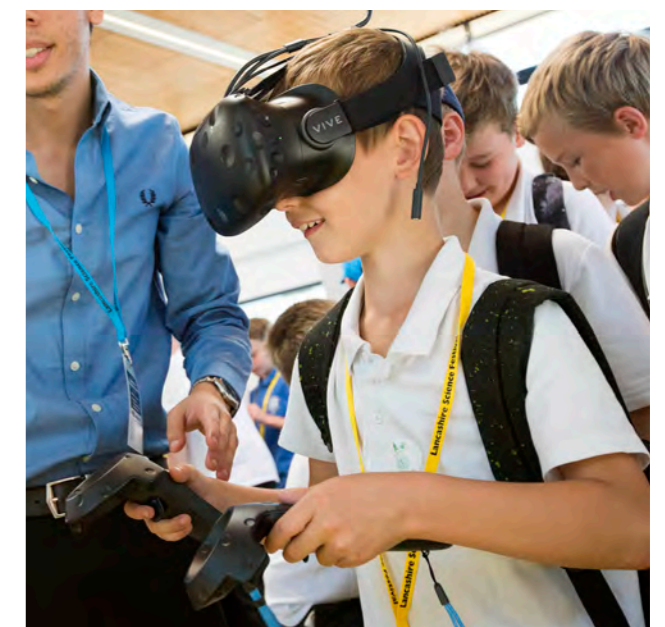
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# Green Zone Programme of Events

U Age group guidance  
   Showfloor / Drop-in  
   Workshop (pre-booked)  
   Show

LOCATION	10.00-10.30am	10.30-11.00am	11.00-11.30am	11.30am-12 noon	12 noon-12.30pm	12.30-1.00pm	1.00-1.30pm	1.30-2.00pm	2.00-2.30pm	2.30-3.00pm	3.00-3.30pm	3.30-4.00pm
Harrington Lecture Theatre			The Rocket Show <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">4+</span>			The Rocket Show <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">4+</span>					The Rocket Show <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">4+</span>	
Greenbank Lecture Theatre	Ghosts in the Machine <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">6+</span>			Ghosts in the Machine <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">6+</span>				Ghosts in the Machine <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">6+</span>				
Harrington Building Room 223	Mischievous Microbes <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">6+</span>			Mischievous Microbes <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">6+</span>			Mischievous Microbes <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">6+</span>					
Harrington Building Room 333			Exploring Animals' Emotions <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">6+</span>			The Peter Pan of Animals <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">6+</span>			Exploring Animals' Emotions <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">6+</span>			
Harrington Building Room 337	Mighty Maggots <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">U</span>			Mighty Maggots <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">U</span>			Mighty Maggots <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">U</span>					
Allen Building Room 104	Playdough Surgery <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">U</span>		Playdough Surgery <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">U</span>		Playdough Surgery <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">U</span>			Playdough Surgery <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">U</span>		Playdough Surgery <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">U</span>		Playdough Surgery <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">U</span>
Greenbank Building Room 109	Become a Paramedic <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">11+</span>			Become a Paramedic <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">11+</span>			Become a Paramedic <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">11+</span>				Become a Paramedic <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">11+</span>	
Greenbank Building Room 111	Hands on Healthcare: Science in the Operating Theatre <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">6+</span>			Hands on Healthcare... <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">6+</span>			Hands on Healthcare: Science in the Operating Theatre <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">6+</span>					
Harrington Social Space	Children's Soft Play, and Dress up Zone - Drop-in 10.00am-4.00pm <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">U</span>											
Greenbank Building Room 001	All Things Nursing! - Drop-in 10.00am-4.00pm <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">U</span>											
Greenbank Building Room 002b	All Things Nursing! - Drop-in 10.00am-4.00pm <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">U</span>											
Greenbank Building Room 115	Children's Ward - Drop-in 10.00am-4.00pm <span style="border: 1px solid black; border-radius: 50%; padding: 2px;">U</span>											
	10.00-10.30am	10.30-11.00am	11.00-11.30am	11.30am-12 noon	12 noon-12.30pm	12.30-1.00pm	1.00-1.30pm	1.30-2.00pm	2.00-2.30pm	2.30-3.00pm	3.00-3.30pm	3.30-4.00pm



# Green Zone

## Science Showfloor

**Packed with exciting interactive activities the whole family can enjoy. This Showfloor is ideal for families with younger children as there are many activities perfect for those under four years of age.**

**Venue:** Harrington Building, Harrington Social Space (Ground Floor)

**Times:** 9.00am-4.00pm (last entry 3.45pm)

### Aspiration Station (U)

Step into your dream job with the Aspiration Station dress-up zone! Join us and explore the exciting possibilities of what you can be when you grow up. Our dress-up zone is filled with a wide range of costumes that represent various career paths - astronaut, scientist, vet and more. Experience the thrill of imagining yourself in different professions and get a glimpse of the future you dream of. You can even take it a step further by taking pictures and sharing them with your friends and family as a fun reminder of your visit. At the Aspiration Station, we believe in inspiring and encouraging children to follow their dreams and explore all kinds of work paths that they are interested in. Our dress-up zone provides a safe and supportive environment where children can let their imagination run wild, learn about different career options, and most importantly have fun. Don't miss out on this exciting opportunity. Visit the Aspiration Station and discover your potential. Who knows, you might find your dream career.

### Bricktopia (U)

LEGO® brick building - either using your imagination or copying printed mosaic images, all with a dinosaur theme.

### Children's Soft Play (Under 5s)

Our soft play area gives your child the chance to run, jump, crawl and slide their way through a world of adventure.

You can relax for a little while as they have fun, let off steam and make new friends in a safe, secure environment.

### Feed

Feed is an arts-based project that explores and challenges attitudes towards how we feed our babies, particularly when in public. The Feeding Chair is a space for everyone, but especially for carers to comfortably feed their babies in museums, galleries, libraries and other public venues. Decorated with artwork by Jade Montserrat, it is an invitation to breast, chest or bottle feed your baby: to take up space and take your time. The chair includes an iPad and speakers in the headrest. Sitters can listen to specially commissioned audio artworks by Magda Stawarska (Research Associate, UCLan), Nicola Singh and Krissi Musiol (Senior Lecturer in Theatre and Performance, UCLan), or watch visual presentations by cultural historian Joanna Wolfarth, Design Researcher Sally Sutherland and 'Diversity in Infant Feeding' founder Louise Oliver, which explore issues of representation, cooperation and public space.

Shelving provides storage for children's toys and books, and copies of the Feed zines are available to take away for free. Feed has been developed by In Certain Places, an art-based research project at the University of Central Lancashire, in collaboration with arts writing platform Corridor8 and designers Textbook Studio. The chair was fabricated by M3 Industries.

### Polydron (U)

The chance to play and explore the world of Polydron. The only thing that can hold you back, is your imagination. Imagine, dream and build.

# Join the conversation #LancSciFest



## Drop-ins

**Discover something new or get hands-on with an experiment.**

**Unless stated otherwise, these sessions are available for you to drop-in throughout the day.**

### All Things Nursing! (U)

**Venue:** Greenbank Building, First Floor, Room 001, Ground Floor and Room 102b

**Times:** 10.00am - 4.00pm

Come and meet our nursing team for some fun activities:

- Get mummified - learn how to tie a bandage.
- Good to glow - do you really wash your hands correctly?
- Brush up on your basic first aid skills. You never know when you might need them.

All this and much more!

### Children's Ward (U)

**Venue:** Greenbank Building, First Floor, Room 115

**Times:** 10.00am - 4.00pm

Come and visit our Children's Ward. The Children's Nursing Team would like to welcome you to take our sugar challenge, assess your poorly teddy bear using our equipment, find your pulse and check your oxygen levels. You can even take part in our 'Mirror Mirror' activity.

## Shows

**Take a seat and enjoy a live performance or demonstration.**

**You do not need to pre-book; please arrive at the venue 15 minutes before the start time to receive a queue number.**

### Ghosts in the Machines (6+)

**Venue:** Greenbank Building, Ground Floor, Lecture Theatre

**Times:** 10.15- 11.15am, 11.45am - 12.45pm, 1.45 - 2.45pm

There are things in this show you will never fully understand, but don't worry, Jon doesn't either!

He just wants to look at ghost hunting from a scientist's viewpoint. How do ghost hunters use technology to find evidence of ghosts and what are they actually measuring? How can normal things appear scary? If the camera never lies, how are we bamboozled by natural things?

Enjoy our adventure, then you can decide for yourselves. This IS a family show, so we won't be invoking demons to join us. There are no chances of us encountering a real ghost...hopefully!

### The Rocket Show (4+)

**Venue:** Harrington Building, Ground Floor, Lecture Theatre

**Times:** 11.00am - 12 noon, 12.45 - 1.45pm, 3.00 - 4.00pm

Join Peter as he guides you through the science and history of rockets. With the help of some large fireballs, incredibly loud explosions and a working jet engine, you'll discover the remarkably simple principles behind the vehicles that may one day take us to Mars and beyond!

# Green Zone

## Workshops

**All our workshops are fully booked today. If you have pre-booked on to a workshop, please arrive at the venue at least 5 minutes before the advertised start time.**

**Late arrivals may not be admitted.**

### Become a Paramedic (11+)

**Venue:** Greenbank Building, First Floor, Room 109

**Times:** 10.15 - 11.15am, 11.45am - 12.45pm, 1.30 - 2.30pm, 3.00 - 4.00pm

Have you ever wondered what it takes to become a paramedic? Now you can find out. See the different equipment that paramedics work with and have a go at some of the skills that paramedics use in emergency situations.

### Exploring Animal Emotions (6+)

**Venue:** Harrington Building, Third Floor, Room 333

**Times:** 11.00 - 11.45am, 2.00 - 2.45pm

Animals can't speak our language, so how can we know what they need and how they are feeling?

Join scientists from the UCLan School of Veterinary Medicine to discover how animals experience the world and explore what they are trying to tell us through their body language and behaviour. By lifting the lid on the secrets of animal communication, we can learn how to keep ourselves and others safe around animals.

### Hands on Healthcare: Science in the Operating Theatre (6+)

**Venue:** Greenbank Building, First Floor, Room 111

**Times:** 10.00 - 11.00am, 12 noon - 1.00pm, 2.15 - 3.15pm

Come and get 'scrubbed up' and get the instruments ready for today's operation. Can you help keep the patient well by oxygenating his lungs too? How well are you? Experience how the team monitor the patients in our care during surgery.

### Mighty Maggots (U)

**Venue:** Harrington Building, Third Floor, Room 337

**Times:** 10.00 - 11.00am, 11.30am - 12.30pm, 1.15 - 2.15pm

Come and meet the 'Mighty Maggots', our tiny (but wriggly!) superheroes. Learn how science works by forming a hypothesis (a good guess/prediction) and then testing it using live maggots! We will see which food is their favourite by counting the number of times they visit - was your prediction right? We will end the session by making your very own maggot art to take home.

### Mischievous Microbes (6+)

**Venue:** Harrington Building, Second Floor, Room 223

**Times:** 10.30 - 11.30am, 12.30 - 1.30pm, 2.00 - 3.00pm

Can the common cold kill?

Do antibiotics work on pesky viruses?

Join Megan to investigate mischievous microbes and how they cause some of the deadliest diseases. Through fun hands-on activities and demonstrations, we will learn how different microbes cause disease and how our medical arsenal attacks them to fight off infections.

### Playdough Surgery (U)

**Venue:** Allen Building, First Floor, Room 104

**Times:** 10.00 - 10.30am, 11.00-11.30am, 12 noon -12.30pm, 1.30 - 2.00pm, 2.30 - 3.00pm, 3.30 - 4.00pm

Are you looking for a fun and interactive way to teach your kids about the wonders of surgery? Look no further! This activity provides families with a hands-on learning experience through simulated surgery using playdough. This workshop is a great opportunity to learn about the medical field, gain a better understanding of the human body and learn how surgery can help improve our health.

### The Peter Pan of Animals (6+)

**Venue:** Harrington Building, Third Floor, Room 333

**Times:** 12.30 - 1.15pm

Ever heard of an axolotl? This remarkable Mexican salamander keeps its youthful looks its whole life, staying in the larval stage even in adulthood. Join UCLan animal scientists in exploring how this animal can help us to understand ourselves and improve human medicine.

Join the conversation #LancSciFest



## Competition time!



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Terms and conditions available on our festival website [lancashiresciencefestival.co.uk](http://lancashiresciencefestival.co.uk)



# Red Zone Programme of Events

U Age group guidance

Showfloor / Drop-in

LOCATION	10.00-10.30am	10.30-11.00am	11.00-11.30am	11.30am-12 noon	12 noon-12.30pm	12.30-1.00pm	1.00-1.30pm	1.30-2.00pm	2.00-2.30pm	2.30-3.00pm	3.00-3.30pm	3.30-4.00pm
University Square			Extreme Sports - The Science U			Extreme Sports - The Science U				Extreme Sports - The Science U		
University Square	Science Busking U								Science Busking U			
	10.00-10.30am	10.30-11.00am	11.00-11.30am	11.30am-12 noon	12 noon-12.30pm	12.30-1.00pm	1.00-1.30pm	1.30-2.00pm	2.00-2.30pm	2.30-3.00pm	3.00-3.30pm	3.30-4.00pm

## Shows

Take a seat and enjoy a live performance or demonstration.

You do not need to pre-book; please arrive at the venue **15 minutes** before the start time to receive a queue number.

### Extreme Sports - The Science (U) - fixed time drop-in

Venue: University Square

Times: 11.00 - 11.45am, 12.30 - 1.15pm, 2.15 - 3.00pm

In this adrenaline-fuelled live stunt show, we will uncover the science and tech behind extreme sports by using elite, backflipping BMX riders to demonstrate it live.

### Science Busking - David Price

Venue: University Square

Times: 10.00 - 12 noon and 2.00 - 4.00pm

Science Busking uses live demonstrations and street theatre techniques as a way of engaging public audiences with science.



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The University is proud to produce and host the Lancashire Science Festival, encouraging the sharing of ideas, knowledge, creativity and the spark of learning.

## **BAE SYSTEMS**

BAE Systems are at the heart of the UK's sovereign combat air capability, strengthening national security and economic prosperity and we are proud of the role we play in helping to keep our country safe, and the vital contribution we make to the UK's national and regional economy. With more than 13,000 employees in the UK and a further 7,000 worldwide, we play our part in developing and safeguarding high value skills for the defence and aerospace industry and supporting our local communities. We're passionate about inspiring the next generation of scientists, technologists, engineers and mathematicians, and hope to one day see the young people visiting the Lancashire Science Festival today join BAE Systems apprenticeship or graduate schemes in the future.

# Join the conversation #LancSciFest

## AMRC North West

AMRC North West, based in central Lancashire, is part of the University of Sheffield Advanced Manufacturing Research Centre (AMRC), a cluster of world-class centres for innovation and research into advanced manufacturing technologies used in the aerospace, automotive, medical and other high-value manufacturing sectors. Our research and development (R&D) at AMRC North West is accessible to all. Our goal is to drive innovation across the wider region, working closely with the extended small-to-medium enterprise (SME) supply chains that are the lifeblood of our economy. Our dedicated applied research centre, built with a £20m grant from the Lancashire Enterprise Partnership (LEP) Growth Deal, sits at the heart of the Samlesbury Enterprise Zone in Preston and is home to a high-performing team of experts operating at the cutting edge of R&D.



## ERIC WRIGHT GROUP

The Eric Wright Group is a leading property and construction management company that develops, builds and maintains the UK's infrastructure. The ethos of every company within the group is to create profit for a purpose and improve economic prosperity in the places they work. The trust invests significantly in training and education for young people, facilitation specialist training and developing life skills to support their learning and transition into work. The construction industry plays a major role in making sure the built environment is shaped to deliver a sustainable future and reduce environmental impact. So many construction careers are focused on green technology and sustainability. IT skills are also essential as modern construction utilises some of the latest technologies.



Bringing energy to your door

Electricity North West distributes electricity across the North West, from the diverse communities between the beautiful Lake District to the bustling city of Manchester and all the wonderful towns and villages located in between. We own and operate 57,000 kilometres of overhead lines and underground cables, enough to go around the world one and a half times. Our essential services provide electricity to 5 million people in 2.4 million properties across the region.



Fort Vale Engineering is a world leading, design and manufacturing company based in Simonstone, Lancashire. Offering a full range of components for the safe transport, storage and process of hazardous liquids, foodstuffs, powders and compressed liquefied gases. Being at the forefront of technological advances, developments in science and engineering are an integral part of the company. Fort Vale is dedicated to encouraging young people into science and engineering through their apprenticeship scheme, sustaining our future by creating yours.

## BUILDING TRUST



Sika is a specialty chemicals company with a leading position in the development and production of systems and products for bonding, sealing, damping, reinforcing, and protecting in the building sector and motor vehicle industry. Sika has subsidiaries in 101 countries around the world and manufactures in over 300 factories. Its more than 27,500 employees generated annual sales of CHF 10.49 billion in 2022.

If you are interested in being part of the festival next year, please contact the team on [LancSciFest@uclan.ac.uk](mailto:LancSciFest@uclan.ac.uk)

# Children's University

## Children's University Learning Destination

The Lancashire Science Festival is delighted to be a Children's University Learning Destination. You will receive stamps for attending the festival. Visit check-in to collect your stamps for your learning passport.

The Children's University is an international critically acclaimed charity which encourages all children aged 5 to 14 years to try new experiences, develop new interests and acquire new skills through participation in innovative and creative learning activities outside of the school day. Find out more at [childrensuniversity.co.uk](http://childrensuniversity.co.uk)



## Interested in sponsoring the next Lancashire Science Festival?

By supporting the festival, you will be helping to inspire the next generation of scientists, engineers and inventors. The festival is free of charge through the support of our sponsors and in-kind supporters. We reach a diverse audience and supporting the festival will not only help inspire the workforce of tomorrow but promote social mobility across the region. The festival has an extensive reach through visitors, social media and press exposure.

**Get in touch! We'd love to have a conversation with you about the festival. Contact the Lancashire Science Festival Director, Dr Liz Granger using the details below:**

[LancSciFest@uclan.ac.uk](mailto:LancSciFest@uclan.ac.uk)

[lancshiresciencefestival.co.uk](http://lancshiresciencefestival.co.uk)

Please return  
your festival  
lanyard using  
the lanyard bins  
located around  
the festival

## I'm a Scientist / Engineer Treasure Trail

**Don't forget to complete your treasure trail card to be entered into our prize draw for a John Adams science kit. The festival is full of real-life scientists and engineers who are excited to talk to you about the work they do.**

**Keep an eye out for people wearing 'I'm a scientist / engineer, talk to me' badges and ask them a question.**

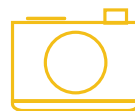
Take your completed card to the Help Hut in the garden area outside of the Sir Tom Finney Showfloor to exchange for a small festival prize and to enter the prize draw.

You can also collect a treasure trail card from this Help Hut.

Here are a few example questions:

- What's your favourite thing about science?
- What's your favourite thing about engineering?
- Who is your favourite famous scientist and why?
- What's the best experiment you've ever done?
- What does your company and/or team research?
- Why did you become a scientist?
- What was your favourite subject at school?

## Competition time!



**Share your festival photos and videos with #LancSciFest on social media to enter our exciting competition.**

**We have two family passes for Blackpool Pleasure Beach up for grabs for the winners. Share on social media with our hashtag, and don't forget to tag us #LancSciFest**

Terms and conditions available on our festival website [lancashiresciencefestival.co.uk](http://lancashiresciencefestival.co.uk)



University of  
Central Lancashire  
UCLan

# Lancashire Science Festival

Accessibility Bus Stop

Baby Change

Baby Feeding Room

Cash Machine

Check-in Point

## Orange Zone

**AB** Adelphi Building

**ME** Media Factory

**OFS** Oasis Faith and Spirituality Centre (Quiet Room and Prayer Room)

**SU** Students' Union

**VB** Victoria Building

## Blue Zone

**DB** Darwin Building

**EIC** Engineering Innovation Centre

**FB** Foster Building

**HB** Harris Building

**MB** Maudland Building

**STF** Sir Tom Finney Sports Centre

## Green Zone

**GR** Greenbank Building

**HA** Harrington Building

First Aid Point

Food and Drink

Help Huts

Under 5s Area

## Red Zone

**SC** Student Centre

**US** University Square

## Car Parking

### University

(Free of charge)

**CP1** Fylde Road, PR1 2XN

**CP2** Computing and Technology, PR1 2XQ

**CP3** Leighton, PR1 8RU

**CP4** Vernon, PR1 7EX

**CP5** Roeburn, PR2 2QQ

**CP6** Victoria I, PR1 7QS

**CP7** Victoria II, PR1 7QS

### Public Car Parking

(Charges apply)

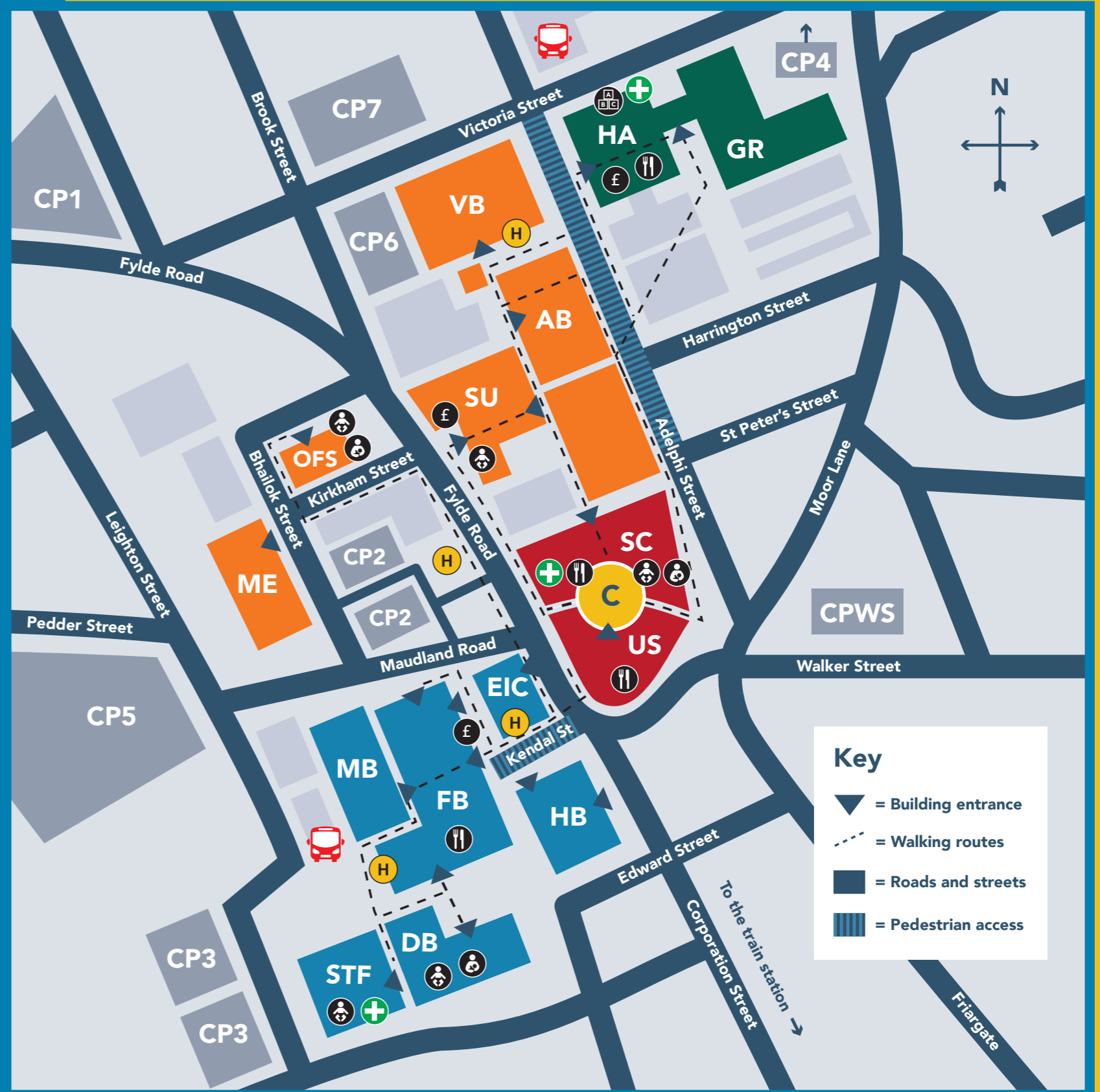
**CPWS** Walker Street Car Park, PR1 2RQ

## Walking times

**STF to FB** 5 to 10 mins

**FB to SU** 5 to 10 mins

**SU to HA/GR** 5 to 10 mins



Join the conversation [#LancSciFest](https://twitter.com/LancSciFest)



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