



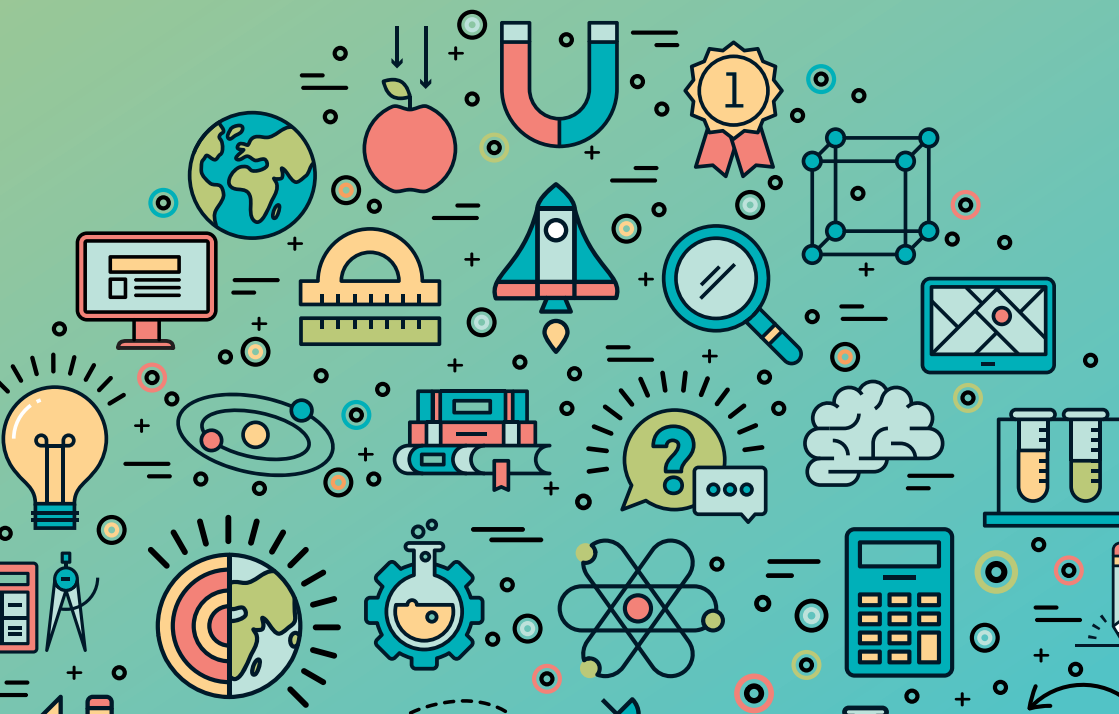
UNIVERSITY OF LEEDS

Leeds Festival of Science

SCHOOLS PROGRAMME

6 - 25 March 2020

Primary - Secondary - Post 16



Key Stage 2	P4
Key Stage 3	P6
Key Stage 4	P12
Key Stage 5	P16
Future Events	P20
Overview Tables	P24

Cancellation Policy

Schools that cancel at short notice, or bring significantly fewer pupils than booked, may be excluded from future events.

Photography Policy

Photographs taken during these events may be used in future publicity and marketing. Schools will be informed of sessions where a photographer will be present and will be supplied with consent forms. The forms will need to be completed by students and parents/guardians and submitted on arrival at the festival.


The 2020 schools programme is full of exciting STEM events for Key Stage 2 to 5, involving science, maths, engineering and geography. Our programme offers a selection of 'roadshow' sessions which can be brought into school, in addition to our popular 'on campus' events.


HOW TO BOOK

- 1 Select your activities**
Browse our programme and shortlist all the events that interest you.
- 2 Complete the Request Form**
Fill in the online form found on our website by Friday 31 January 2020 to request activities. Send your requests in as early as possible as we begin allocating places at the start of January. Please visit www.leeds.ac.uk/festivalofscience to find the request form.
- 3 Wait for allocations to be made**
Allocations will be emailed to schools from Tuesday 7 January 2020. You'll be provided with all the information you need for your Leeds Festival of Science booking.

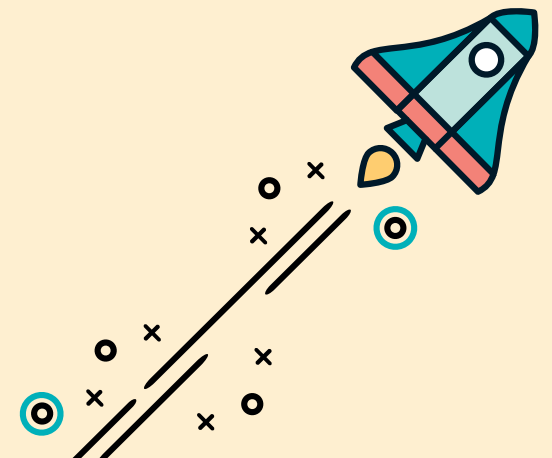
GET IN TOUCH

Please contact us if you have any questions or would like to learn more about what's on offer during the Leeds Festival of Science.

 @STEMatLeeds #LFoS20

 festivalofscience@leeds.ac.uk

 0113 343 7495



DON'T JUST IMAGINE THE DAMAGE CLIMATE CHANGE CAN DO TO OUR PLANET, EXPERIENCE IT!

Using state of the art virtual reality headsets, students explore what landscapes around the world look like before and after environmental damage.

Duration 1 hour 30 minutes
6 - 13 March AM

Up to 30 pupils per school.
Leeds area only.

AVOIDING ATTACK!

The “evolutionary arms race” between predators and prey has produced some fantastic examples of adaptation. Students will explore the advantages of some adaptations (camouflage and mimicry) using simple experiments, and will be presented with some real world examples of those adaptations to experience just how remarkable evolution can be.

Duration 1 hour
9 - 11 March AM or PM

Up to 32 pupils per school.



DISCOVER ENGINEERING

Pupils will work in teams to build a giant tetrahedron structure (room size permitting!). The activities are designed to challenge pupils to communicate, practice, test and create using real-life examples of engineering practices and processes.

Duration 1 hour 30 minutes
Monday 9 March AM or PM
Tuesday 10 March AM or PM
Friday 13 March AM or PM

Up to 30 pupils per school.

PARTICLE ZOO

Learn all about the Big Bang, particles and the formation of the universe through our fun, interactive presentation.

Duration 1 hour
9 - 13 March AM or PM

Up to 30 pupils per school. Suitable for years 5 & 6.

MY FOOD IS A RAINBOW

What gives food its colour and how does it affect the taste? What are superfoods and how are they good for us? Hear from food scientists and take part in some colourful experiments to get your taste buds going!

Duration 1 hour
Wednesday 11 March PM
Thursday 12 March AM or PM

Up to 35 pupils per school.
Can be run twice in the same school.
Leeds or Bradford only.

KS2 CAROUSELS - DAY 1

Carousel 1

THE SIZE OF SPACE

Investigate how big and how far apart planets are in the Solar System through a fun and interactive activity using Play-Doh and till roll!

ROLLERCOASTERS

Pupils will design and construct their own rollercoasters using Newton’s Laws of Motion.

Tuesday 17 March 09:45 - 11:45

Up to 30 pupils per school.
Suitable for years 5 & 6.

KS2 CAROUSELS - DAY 2

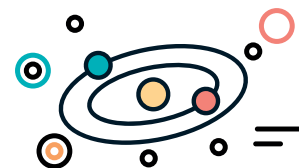
Carousel 2

SNAKES, SLUGS AND SPIDERS

Learn about different skeleton types by investigating these fascinating creatures.

MARBLE MAZES

Use your knowledge of forces and friction to build the ultimate marble maze.



Carousel 3

BEE IS FOR BIODIVERSITY

Learn about bees and biodiversity with our virtual hive, bee quizzes and games.

FOSSIL HUNT!

Hunt fossils in the classroom with our expert palaeontologist! What did these creatures look like and where did they live?

Carousel 4

WHAT A GAS!

Visit our teaching labs to learn all about gases. Explore the properties and uses of carbon dioxide and make your own bath bombs!

WHAT'S IN MY KIWI?

Seeds? Juice? There’s probably lots of stuff you’ve never seen before too. Can you collect the DNA from your kiwi?

Wednesday 18 March 09:45 - 11:45

Up to 30 pupils per school.
Suitable for years 5 & 6.

DISCOVERY ZONE

A whistle-stop tour of interactive STEM activities, with at least 25 different stalls of hands-on science. Investigate the habitats of crayfish, find out about neurons, look at how your heart rate changes during exercise, and many other activities – all in one room! This is a fun, practical event for students and teachers alike. Early booking recommended!

Tuesday 24 March 09:45 - 11:45 or 13:00 - 15:00

Up to 30 pupils per school.

CAN YOU SOLVE IT?

Is the North Pole the only place on Earth from which you can walk 1km due south, turn and walk 1km due east, turn again and walk 1km due north and find yourself back where you started? In this fun session, we'll solve similar puzzles and explore how mathematicians think!

Duration 50 minutes
6 - 13 March AM

Up to 30 pupils per school.



DON'T JUST IMAGINE THE DAMAGE CLIMATE CHANGE CAN DO TO OUR PLANET, EXPERIENCE IT!

Using state of the art virtual reality headsets, students explore what landscapes around the world look like before and after environmental damage.

Duration 1 hour 30 minutes
6 - 13 March AM

Up to 30 pupils per school.
Leeds area only.



PLASTIC FANTASTIC

The recent MacArthur Foundation report warns that there will be more plastic in the sea than fish by 2050. Students will think critically about the problem and engage in hands-on activities to explore and learn about possible solutions. Focus will be on how to reduce, reuse and recycle plastic products.

Duration 2 hours
6 - 13 March AM

Up to 30 pupils per school.
Leeds area only.



STRATEGIES OF SIMPLE GAMES

There is a family of games called Nim and although their rules are simple, their strategy can be surprisingly subtle. We will play some games, discover some strategies, and also use mathematics to analyse these games.

Duration 1 hour
Friday 6 March AM
Monday 9 March AM
Wednesday 11 March AM or PM
Friday 13 March AM

Up to 50 pupils per school.
Flexible timing, 1 to 2 hours.
West Yorkshire only (Fridays Leeds area only).

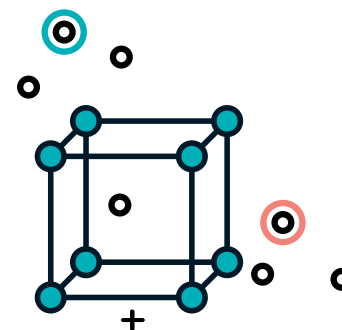


THE MATHEMATICS OF CELL DIVISION AND MULTIPLICATION

Cell numbers in our body change over time - they divide, die or differentiate (change to become a slightly different cell type). With these rules, how many cells are there at a given time? Mathematics provides a beautiful tool to answer this question: branching processes. In this session you will learn about branching processes in biology and how to write a simple computer code (in python) to simulate the dynamics of a population of cells.

Duration 1 hour
6 - 13 March AM or PM

Up to 50 pupils per school.
Ideally students would have access to computers/ tablets to fully engage in activities.



DESIGN & BUILD

An introduction to Civil Engineering, this session invites students to 'Design & Build' their own LEGO house in response to a client brief and set of construction drawings. Students will work in small groups under time pressure to conquer the challenge, even when their initial ideas have to be adapted to meet the changes in the client's brief.

Duration 1 hour
9 - 13 March AM or PM

Up to 30 pupils per school.

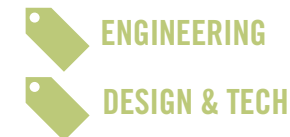


DESIGN & MAKE

Based on the RAF's missions and how engineers contribute to these disaster relief missions, students will work in small groups to produce a package model (using materials supplied) which can be dropped with an egg and land safely on the ground. Students will select one design to make and test with consideration for cost of materials, functionality and aesthetics.

Duration 1 hour
9 - 13 March AM or PM

Up to 32 pupils per school.



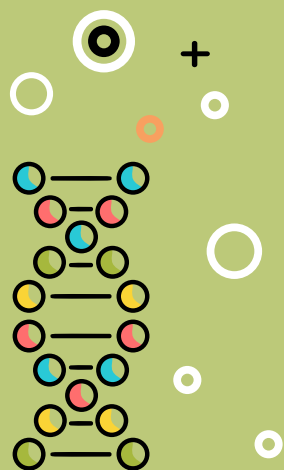
MEDICAL EQUIPMENT FOR EMERGENCIES

Through an exciting hands-on, scenario-based session, students will find out how healthcare professionals handle emergency situations. Using real-life medical equipment, students will find out how healthcare professionals work together, combining their different skill sets to successfully stabilise, diagnose and treat patients.

Duration 1 hour
9 - 13 March AM or PM

Up to 30 pupils per school.
West Yorkshire only.
Can run multiple sessions in the same school.

 **ALL SCIENCES**



MIGHTY MIX UP!

Pupils will be introduced to emulsions and discover where they are found in everyday life, and why they are important to scientists. They'll make (and taste!) their own ice cream.

Duration 1 hour
Monday 9 March AM or PM
Friday 13 March AM or PM

Up to 30 pupils per school.

 **CHEMISTRY**

ORIGAMI ORGANELLES

The cell is a complicated structure but one that tells a story of how we go from DNA to walking, talking humans. This session looks at the key components of a mammalian cell – its 'organelles' – to show how one works. Students build origami structures of each of these organelles and come together to create whole cells from their results.

Duration 1 hour
9 - 11 March AM or PM

Up to 30 pupils per school.

 **BIOLOGY**

SPINAL ANGLES, STATISTICS AND SCOLIOSIS

This session is a great way to show students that the maths skills they are developing are used in the real world in various professions.

The students will find out what the 'Cobb angle' is and explore how to determine and measure it to understand scoliotic curve severity from spinal x-rays and analyse results for orthopaedic healthcare applications/professionals.

Duration 1 hour
9 - 12 March AM

Up to 32 pupils per school.
Suitable for mid-attaining year 8 & 9 pupils.
Focuses on geometry and basic statistical analysis.
Pupils require a calculator, protractor and ruler for this session.

West Yorkshire only.

 **MATHEMATICS**

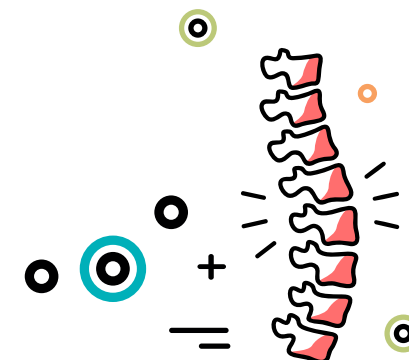
WHAT ARE HEALTHCARE PROFESSIONALS? AN INTRODUCTION TO HEALTH CAREERS

Did you know there are 300 different career paths in the NHS? There is more to healthcare than just doctors and nurses! Through quizzes and group activities, your students will find out about the many exciting different professionals in healthcare and develop an understanding of the wide range of careers available to them in the future.

Duration 1 hour
9 - 13 March AM or PM

Up to 30 pupils per school.
West Yorkshire only.
Can run multiple sessions in the same school.

 **ALL SCIENCES**



CELEBRATE ENGINEERING FOR INTERNATIONAL WOMEN'S DAY

In honour of International Women's Day, the University is hosting a chance to experience hands-on the breadth of engineering available at Leeds. Experience interactive stalls each posing a different engineering problem, and meet the real engineers conducting the research. Students will be invited to investigate areas such as Bioenergy, Fluid Dynamics, Tissue Engineering and Robotics.

Friday 6 March 09:45 - 15:00

Up to 12 pupils per school.
Female students only.



POP MATHS QUIZ

Pupils compete in teams of six in this pub quiz style maths competition. For more information visit www.stem.leeds.ac.uk/popmaths. All schools welcome to apply (maximum of two teams per school).

Saturday 14 March 11:00 - 13:00

Up to 12 pupils per school.
Suitable for years 7 & 8.

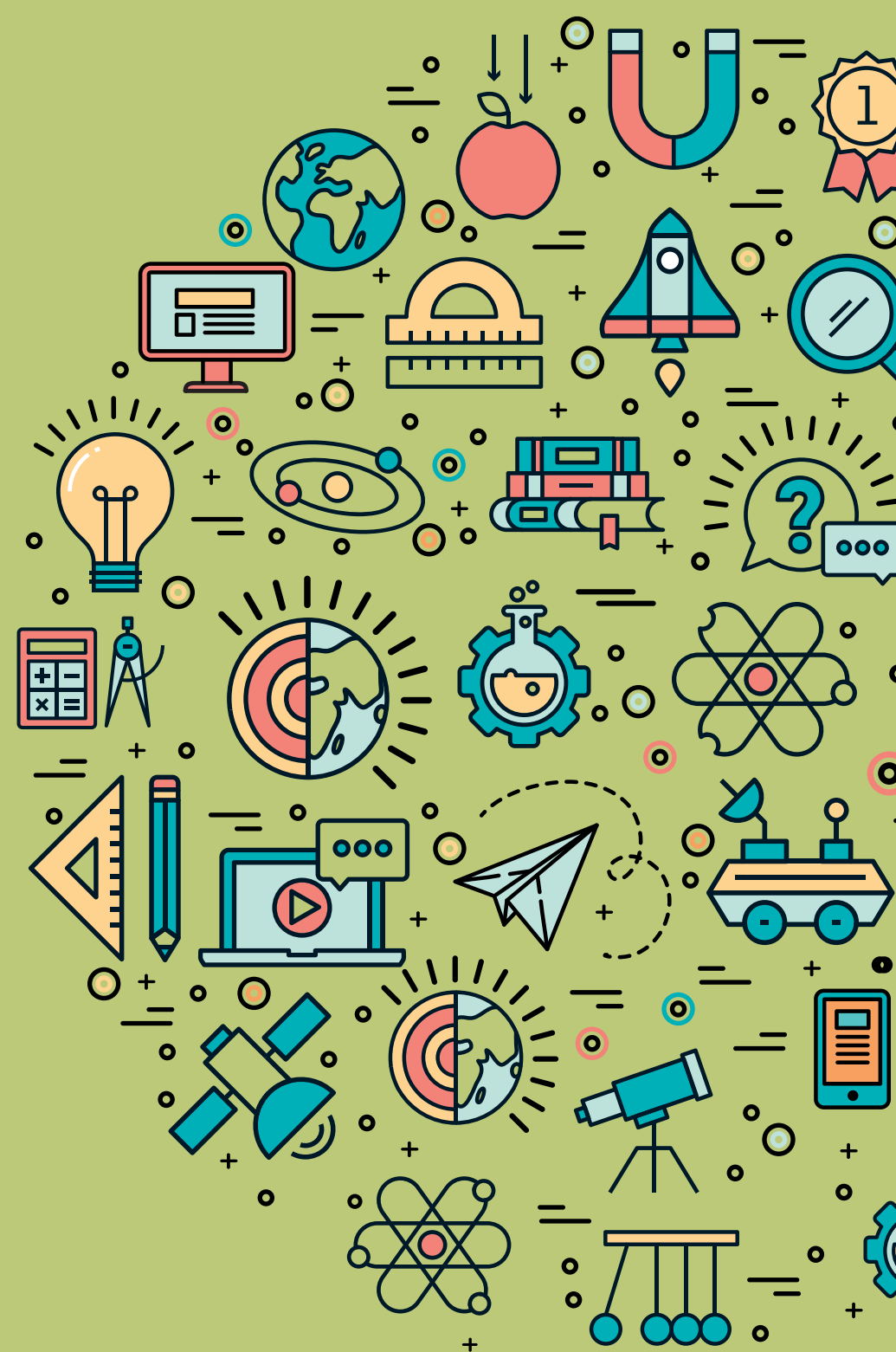


DISCOVERY ZONE

A whistle-stop tour of interactive STEM activities, with at least 25 different stalls of hands-on science. Investigate the habitats of crayfish, find out about neurons, look at how your heart rate changes during exercise, and many other activities – all in one room! This is a fun, practical event for students and teachers alike. Early booking recommended!

Wednesday 25 March 09:45 - 11:45 or 13:00 - 15:00

Up to 30 pupils per school.



HOW DO CELLS MAKE DECISIONS AND WHAT DOES IT HAVE TO DO WITH MATHEMATICS?

A series of biochemical reactions, initiated by a “receptor” molecule interacting with a “growth factor” molecule, lead to a cell deciding between different fates, such as division, death or differentiation (changing cell type). This is how cells communicate with each other, but how do they make a decision given the many different receptors on their surface and the wide array of growth factors in their extracellular space? Mathematics provides a beautiful tool to answer this question: stochastic processes. In this session you will learn about stochastic processes in biology and how to write a simple computer code (in python) to simulate the biochemical reactions that take place before a cell makes a decision.

Duration 1 hour
6 - 13 March AM or PM

Up to 50 pupils per school.
Ideally students would have access to computers/tablets to fully engage in activities.



MATHS HAS THE BEST CURVES

What is the shape of a hammock? How do foxes catch rabbits? Why do seashells grow in spirals? In this session, we'll answer similar questions and learn how to make the most beautiful curves maths can offer.

Duration 50 minutes
6 - 13 March AM

Up to 30 pupils per school.

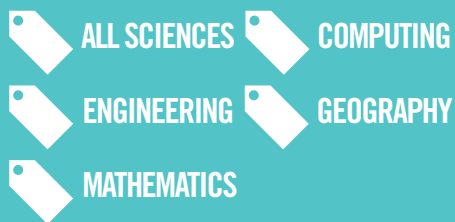


LEEDS LOVES STEM

Our student ambassadors will give a presentation and answer questions about their degree subjects, career paths and their experiences of studying at the University of Leeds.

These talks are a chance for your pupils to find out more about specific STEM subjects and opportunities in higher education. They allow pupils to explore some of the options available for further study and would be ideal for pupils making decisions about which subjects to study at a higher level.

Duration 1 hour
6 - 13 March AM or PM



DESIGN & BUILD ?

An introduction to Civil Engineering, this session invites students to 'Design & Build' their own LEGO house in response to a client brief and set of construction drawings. Students will work in small groups under time pressure to conquer the challenge, even when their initial ideas have to be adapted to meet the changes in the client's brief.

Duration 1 hour
9 - 13 March AM or PM

Up to 30 pupils per school.

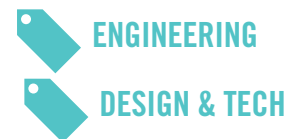


DESIGN & MAKE

Based on the RAF's missions and how engineers contribute to these disaster relief missions, students will work in small groups to produce a package model (using materials supplied) which can be dropped with an egg and land safely on the ground. Students will select one design to make and test with consideration for cost of materials, functionality and aesthetics.

Duration 1 hour
9 - 13 March AM or PM

Up to 32 pupils per school.



HOW DO WE USE DNA?

DNA is the fascinating basis for all life, and yet there is a lot we don't know about it, despite great advances in technology in the last few decades. Gel electrophoresis is used by scientists the world over to investigate DNA - learn about how and why we use this technology in this hands-on session.

Duration 1 hour
9 - 11 March AM or PM

Up to 30 pupils per school.

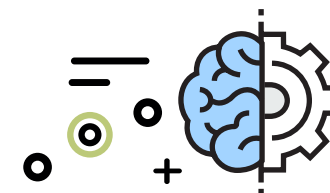


SUBATOMIC LEGO

Explore the Big Bang from quarks to protons and neutrons using LEGO in a fun, interactive workshop where we investigate what's inside atoms and where these subatomic particles came from.

Duration 1 hour
9 - 13 March AM or PM

Up to 30 pupils per school.



WHAT ARE HEALTHCARE PROFESSIONALS? AN INTRODUCTION TO HEALTH CAREERS

Did you know there are 300 different career paths in the NHS? There is more to healthcare than just doctors and nurses! Through quizzes and group activities, your students will find out about the many exciting different professionals in healthcare and develop an understanding of the wide range of careers available to them in the future.

Duration 1 hour
9 - 13 March AM or PM

Up to 30 pupils per school. West Yorkshire only.
Can run multiple sessions in the same school.

 **ALL SCIENCES**



WHO WANTS TO BE A MARINE SCIENTIST? LIFE ON THE HIGH SEAS

Marine Scientist Clare Would's spent several months conducting research at sea, in locations ranging from the tropical Indian Ocean to sites off the Antarctic Peninsula. She will give a talk about marine science at sea, illustrated with her photographs, followed by a question and answer session.

Duration 1 hour
Tuesday 10 March AM or PM
Wednesday 11 March PM

Up to 60 pupils per school.
West Yorkshire only.

 **ALL SCIENCES**  **GEOGRAPHY**

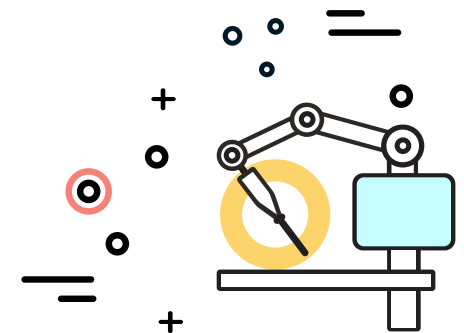
CELEBRATE ENGINEERING FOR INTERNATIONAL WOMEN'S DAY?

In honour of International Women's Day, the University is hosting a chance to experience hands-on the breadth of engineering available at Leeds. Experience interactive stalls each posing a different engineering problem, and meet the real engineers conducting the research. Students will be invited to investigate areas such as Bioenergy, Fluid Dynamics, Tissue Engineering and Robotics.

Friday 6 March 09:45 - 15:00

Up to 12 pupils per school.
Female students only.

 **BIOLOGY**  **CHEMISTRY**  **COMPUTING**  **ENGINEERING**

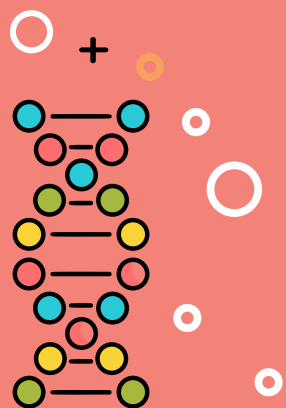
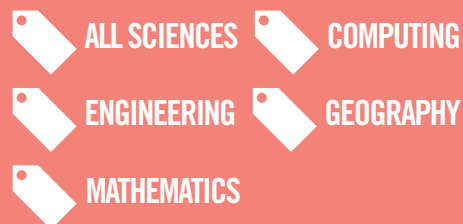


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Duration 1 hour
6 – 13 March AM or PM



WHY KNOT?

Take a rope, tie any knot, and glue the ends of the rope. Take another rope, repeat. How can you tell if the two knots are the same? How can you tell if a knot can be unknotted without cutting the rope? Learn all this and why mathematicians are concerned with these questions.

Duration 1 hour
6 - 13 March AM or PM

Up to 20 pupils per school.
West Yorkshire only.



HOW DO WE USE DNA?

DNA is the fascinating basis for all life, and yet there is a lot we don't know about it, despite great advances in technology in the last few decades. Gel electrophoresis is used by scientists the world over to investigate DNA - learn about how and why we use this technology in this hands-on session.

Duration 1 hour
9 - 11 March AM or PM

Up to 30 pupils per school.



PLAYING DICE WITH EPIDEMICS

During this session, we will explain how probability theory and random processes can be used in order to mathematically and computationally simulate epidemics in real life. This can help to assess the efficacy of control strategies for avoiding the spread of a given disease among individuals in a population.

To this aim, we will make use of an original series of video games, "Hospital Infections", in which we simulate the spread of an infectious disease within patients in a hospital ward.

Duration 1 hour
Monday 9 March AM or PM
Thursday 12 March AM or PM
Friday 13 March AM or PM

Up to 30 pupils per school.
Ideally students would have access to computers/tablets to fully engage in activities.

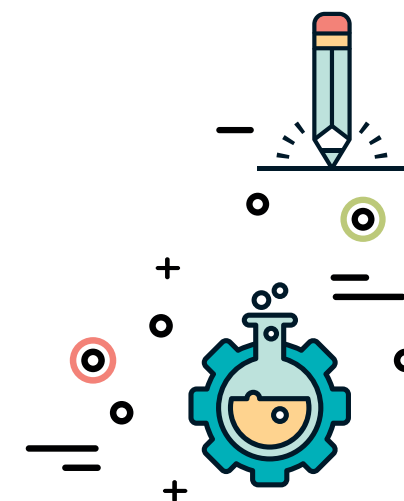


DESIGNING A MEDICINE

Use chemistry and computer modelling to design a painkiller that's stronger than aspirin.

Duration 1 hour
Tuesday 10 March AM or PM
Friday 13 March AM

Up to 30 pupils per school.
Access to computers/iPads preferred but not essential.



ENGINEERING HUMANS - BONE HEALING (PART 1)

Discover how bones make up the body and find out what happens if they break. Students are invited to explore medical engineering and the importance of immobilising broken bones using a sling. Students will investigate 4 different stages of a bone healing; from swelling to callus formation and regeneration of bone, then produce models of these.

This session is part one of two with the option to study 'fracture fixations'. This session creates fracture fixation devices and explores what types of tools surgeons can use to help heal bones!

Duration 1 hour
11 -13 March AM or PM

Up to 32 pupils per school.
Extended session available (see below).

 **MEDICAL ENGINEERING**



ENGINEERING HUMANS - FRACTURE FIXATION (PART 2)

This session invites students to approach broken bones from an engineering perspective, introducing them to what medical engineers and orthopaedic surgeons do. Students will see fracture fixation tools and X-rays of bones to illustrate how they are used, before responding to a live brief to develop a 'fracture fixation device'.

Students will work in teams to consider how much their device costs, and how well the prototype performs in tests before presenting to the client.

Duration 1 hour
11 -13 March AM or PM

Up to 32 pupils per school.
Extended session available (see below).

 **MEDICAL ENGINEERING**

ENGINEERING HUMANS - EXTENDED SESSION

Enjoy an extended session covering Bone Healing (Part 1) and Fracture Fixation (Part 2). See above for details.

Duration 1 hour 30 minutes
11 -13 March AM or PM

Up to 32 pupils per school.

 **MEDICAL ENGINEERING**

PSYCHOLOGY TASTER DAY

This day provides students with a snapshot of life as a Psychology student at Leeds. Students will experience mini-lectures and workshops, along with application tips from the admissions team.

Wednesday 18 March 09:00 - 16:00

Suitable for year 12. Individual booking only. Bookings open in January 2020. For eligibility criteria and booking details, please visit www.healthsciences.leeds.ac.uk/events/psychology-taster-day-5

 **ALL SCIENCES**

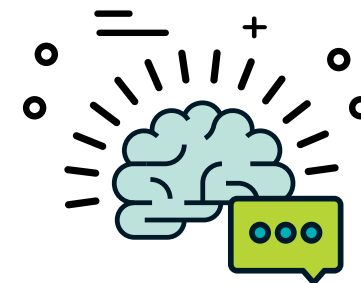
ALLIED HEALTH AND HEALTHCARE SCIENCE TASTER DAY

Interested in a career steeped in science but still with patient care elements? Have you heard of professions such as Audiology, Cardiac Physiology or Diagnostic Radiography? With exciting mini lectures and practical classes using our medical simulation equipment, students will get a real taste of studying these subjects at University and an insight into where these courses can lead in the future.

Friday 20 March 09:00 - 16:00

Suitable for year 12.
Individual booking only. Bookings open in January 2020. For eligibility criteria and booking details, please visit www.healthsciences.leeds.ac.uk/events/allied-health-professions-day

 **ALL SCIENCES**



Join us on campus for more STEM events from our annual programme – here's what is coming up

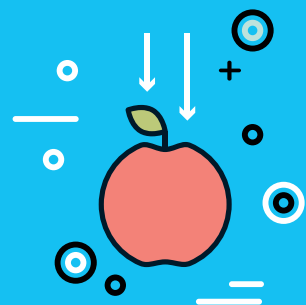
KS4 EXPLORE STEM: CREATING A SUSTAINABLE FUTURE

Join us for the day to discover more about university, STEM subjects and where they could take you. Take part in three STEM workshops around the theme of sustainability, demonstrating how science can provide answers for a sustainable future.

Thursday 2 April 09:30 - 14:45

Up to 30 pupils per school.
Apply online at
www.stem.leeds.ac.uk/events/stemdays

 ALL SCIENCES



KS5 BIOLOGICAL SCIENCES TASTER DAY

Are you currently in year 12 with an interest in studying Biological Sciences at the next level? Join us for a taster day where you will experience life as an undergraduate by carrying out practical experiments in our teaching labs, discovering new subjects, exploring the campus and speaking to current staff and students in the Faculty of Biological Sciences. Event is free of charge to attend and lunch is provided.

Monday 30 March 09:30 - 15:00

Up to 15 pupils per school.
Open to teachers and/or individuals to book.
Interested students should apply online at www.stem.leeds.ac.uk/biologicalsciences/tasterday/

 BIOLOGY

YEAR 12 PHYSICS TASTER DAY

Join us as an undergraduate student for the day. You'll attend a lecture, solve challenging problems during a workshop and complete an undergraduate-level lab session.

This is a great opportunity for A level students studying both Maths and Physics to experience university life and see what it's like to study in higher education.

Tuesday 31 March 10:00 - 14:30

Interested students should apply online at www.stem.leeds.ac.uk/physics/tasterday

 MATHEMATICS  PHYSICS

KEY STAGE 5 MATHS DAY

Choose one of the 3 options below and then attend our W. P. Milne Sixth Form lecture (see right). An optional campus tour is also available with options A and B.

Suitable for maths A level students. Students to bring packed lunches.

OPTION A UNTANGLING KNOT THEORY

It's not only mountaineers, scouts, and sailors who study knots, but also mathematicians. In fact, knot theory has turned out to be an extraordinarily deep subject – the fundamental question of determining whether two knots are the same turns out to be surprisingly difficult. This subject also has numerous and diverse applications, from the knotting of our own DNA to quantum physics. In this session we will meet several mathematical techniques for analysing and classifying different knots.

Wednesday 1 April 11:00 - 13:00

OPTION B HIDDEN SYMMETRIES OF NATURE

Symmetry is all around us. Just think of the left-right symmetry of your body or the hexagons of a honeycomb. Buildings, paintings and music can also be symmetric. But symmetry isn't just something that's pretty. It's a powerful tool that can be used to understand nature from planets to particles.

Wednesday 1 April 11:00 - 13:00

OPTION C HANDS-ON MATHEMATICS, TALK AND TOUR

Activities include creating chaos and exploring the maths of soap bubbles in a 'hands-on mathematics' session, a campus tour, and a talk about studying mathematics at Leeds.

Wednesday 1 April 11:00 - 14:20

HOW OFTEN DO CURVES MEET? (W P MILNE LECTURE FOR SIXTH FORMERS)

If you take an equation involving variables x and y , you can draw a graph of its solutions: they form a plane curve. If you have two such equations, you have two curves, and you can ask how many times they intersect each other.

I'll explain why counting these intersections is useful for a range of things: from understanding Pythagoras's equation $a^2 + b^2 = c^2$, to annoying people on the internet, to the cutting edge of mathematics.

I'll show a very simple formula, which happens to be wrong, and explain why it's a good idea to ignore the fact that it's wrong.

Wednesday 1 April 14:30 - 15:30

The W. P. Milne lecture is held in collaboration with the Yorkshire Branch of the Mathematical Association and can be booked independently of the options above.

Apply online at
www.stem.leeds.ac.uk/KS5mathsday

 MATHEMATICS

Future Events

Campus

Are you interested in patient facing sciences?

Why not explore our Health Sciences events?

KS5 HEALTHCARE TASTER DAY

If your students are considering a career in Nursing, Midwifery or Social Work this day provides an excellent opportunity to experience these courses at University. Students will have a taste of university style teaching as well as getting to explore our specialist clinical teaching facilities at Leeds. Including a tour of campus and Q&A with current students, your students will get a real feel for studying healthcare at University.

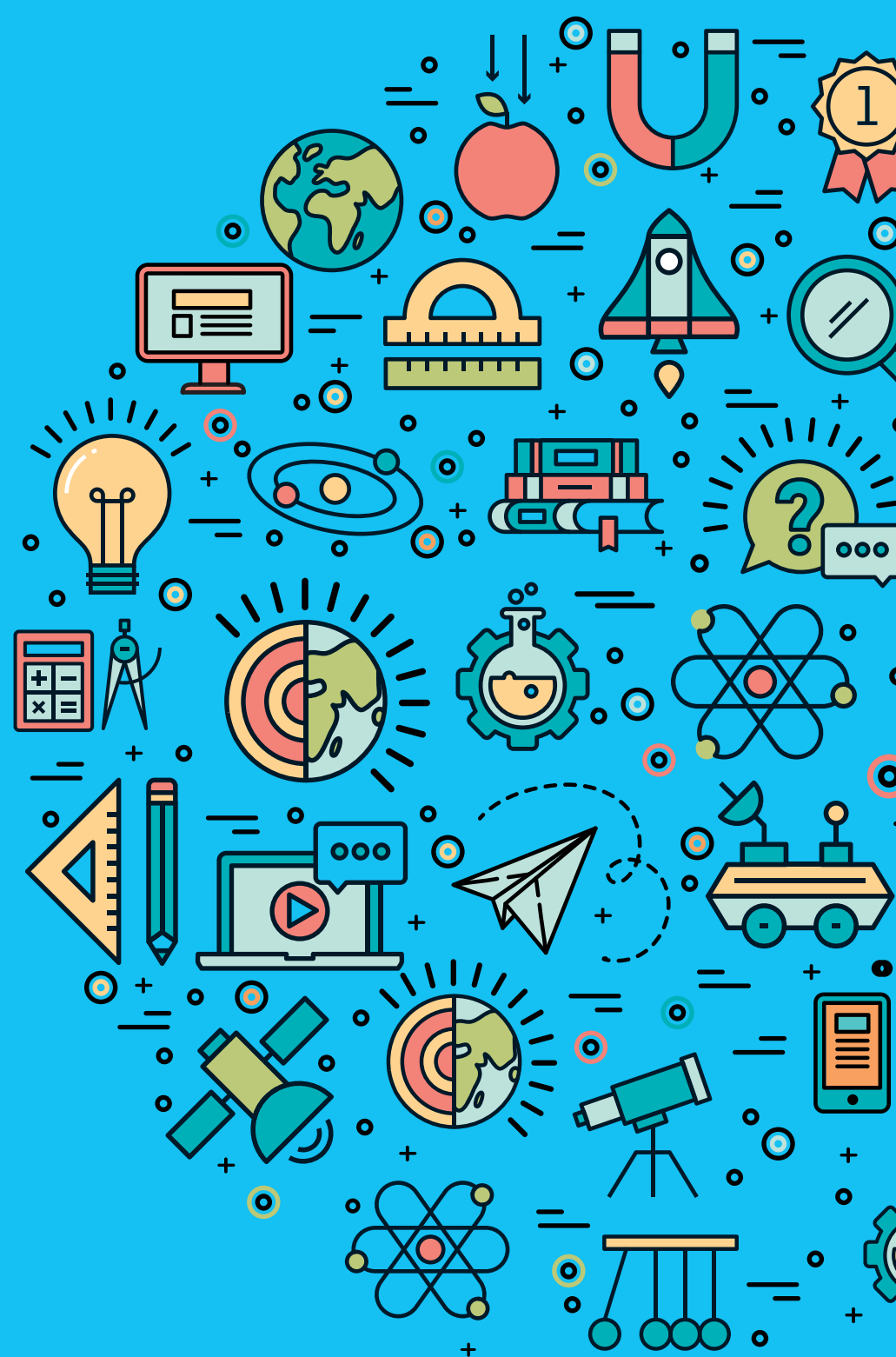
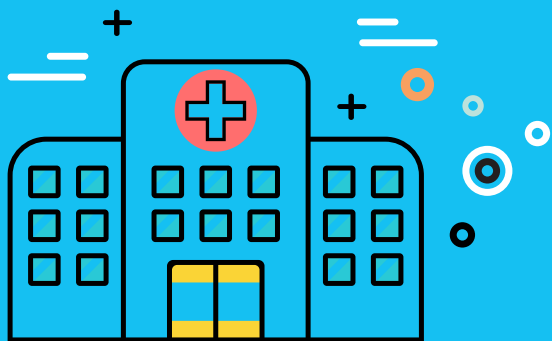
Friday 27 March 09:00 - 16:00

Suitable for year 12.
Individual booking only.
Bookings open in January 2020.

For eligibility criteria and booking details, please visit
www.healthsciences.leeds.ac.uk/events/nursing-midwifery-and-social-work-taster-day-2

For more information on Health Sciences visit the website www.healthsciences.leeds.ac.uk

 ALL SCIENCES



Roadshow Programme Overview

Audience	Activity
KS2	Avoiding Attack!
KS3	Can you solve it?
KS3/KS4	Design & Build
KS3/KS4	Design & Make
KS5	Designing a medicine
KS2	Discover Engineering
KS2/KS3	Don't just imagine the damage climate change can do to our planet, experience it!
KS5	Engineering Humans - Bone Healing (Part 1)
KS5	Engineering Humans - Fracture Fixation (Part 2)
KS5	Engineering Humans - Extended session
KS4	How do cells make decisions and what does it have to do with mathematics?
KS4/KS5	How do we use DNA?
KS4/KS5	Leeds Loves STEM
KS4	Maths has the best curves
KS3	Medical equipment for emergencies
KS3	Mighty mix up!
KS2	My food is a rainbow
KS3	Origami organelles
KS2	Particle Zoo
KS3	Plastic fantastic
KS5	Playing dice with epidemics
KS3	Spinal angles, statistics and scoliosis
KS3	Strategies of simple games
KS4	Subatomic LEGO
KS3	The mathematics of cell division and multiplication
KS3/KS4	What are healthcare professionals? An introduction to health careers
KS4	Who wants to be a marine scientist? Life on the high seas
KS5	Why knot?

Roadshow Programme Overview

	Fri 6	Mon 9	Tues 10	Wed 11	Thurs 12	Fri 13	Page
◀BIO		AM or PM	AM or PM	AM or PM			4
◀MATH	AM	AM	AM	AM	AM	AM	6
◀ENG		AM or PM	AM or PM	AM or PM	AM or PM	AM or PM	7,13
◀ENG ▶D&T		AM or PM	AM or PM	AM or PM	AM or PM	AM or PM	7,13
◀CHEM			AM or PM			AM	17
◀ENG		AM or PM	AM or PM			AM or PM	4
◀GEO ▶BIO	AM	AM	AM	AM	AM	AM	4,6
◀M ENG				AM or PM	AM or PM	AM or PM	18
◀M ENG				AM or PM	AM or PM	AM or PM	18
◀M ENG				AM or PM	AM or PM	AM or PM	18
◀MATH ▶COMP ▶BIO	AM or PM	AM or PM	AM or PM	AM or PM	AM or PM	AM or PM	12
◀BIO		AM or PM	AM or PM	AM or PM			13,16
◀ALL SCIENCES	AM or PM	AM or PM	AM or PM	AM or PM	AM or PM	AM or PM	12,16
◀MATH	AM	AM	AM	AM	AM	AM	12
◀ALL SCIENCES		AM or PM	AM or PM	AM or PM	AM or PM	AM or PM	8
◀CHEM		AM or PM				AM or PM	8
◀ALL SCIENCES				PM	AM or PM		4
◀BIO		AM or PM	AM or PM	AM or PM			8
◀PHYS ▶CHEM		AM or PM	AM or PM	AM or PM	AM or PM	AM or PM	4
◀ALL SCIENCES	AM	AM	AM	AM	AM	AM	6
◀MATH		AM or PM			AM or PM	AM or PM	17
◀MATH		AM	AM	AM	AM		9
◀MATH	AM	AM		AM or PM		AM	6
◀PHYS ▶CHEM		AM or PM	AM or PM	AM or PM	AM or PM	AM or PM	13
◀MATH ▶COMP ▶BIO	AM or PM	AM or PM	AM or PM	AM or PM	AM or PM	AM or PM	7
◀ALL SCIENCES		AM or PM	AM or PM	AM or PM	AM or PM	AM or PM	9,14
◀ALL SCIENCES ▶GEO			AM or PM	PM			14
◀MATH	AM or PM	AM or PM	AM or PM	AM or PM	AM or PM	AM or PM	16

Campus Programme Overview

Audience	Activity		Time	Page
FRIDAY 6 MARCH				
KS3/KS4	Celebrate Engineering for International Women's Day	◀ COMP ▶ ENG ◀ CHEM ▶ BIO	09:45 - 15:00	10, 15
SATURDAY 14 MARCH				
KS3	Pop maths quiz	◀ MATH ▶	11:00 - 13:00	10
TUESDAY 17 MARCH				
KS2	KS2 carousels - day 1		09:45 - 11:45	5
WEDNESDAY 18 MARCH				
KS5	Psychology taster day	◀ ALL SCIENCES ▶	09:00 - 16:00	19
KS2	KS2 carousels - day 2		09:45 - 11:45	5
FRIDAY 20 MARCH				
KS5	Allied health and healthcare science taster day	◀ ALL SCIENCES ▶	09:00 - 16:00	19
TUESDAY 24 MARCH				
KS2	Discovery Zone	◀ ALL SCIENCES ▶	09:45 - 11:45 or 13:00 - 15:00	5
WEDNESDAY 25 MARCH				
KS3	Discovery Zone	◀ ALL SCIENCES ▶	09:45 - 11:45 or 13:00 - 15:00	10

To see on campus events coming up just after the festival please see pages 20-22.

SUMMER SCHOOLS

Join us at the University of Leeds to discover what it's like to study STEM at university!



Bioscience
14 - 15 JULY

Y12

1 night



Food Science
1 to 3 JULY

Y12

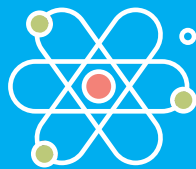
2 nights



Mathematics
1 to 3 JULY

Y12

2 nights



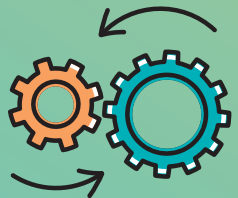
Visit the website to learn more!

www.stem.leeds.ac.uk/summerschools



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