



Science Foundation Ireland For what's next



cavan & monaghan

20 Cn Cavan

18 Mn Monaghan

Sc Festival

SCIENCE FESTIVAL

science in everyday life

SCHOOLS PROGRAMME 2018


FREE EVENTS




Bookings through sciencefestival@monaghancoco.ie

10th-24th NOV 2018
cavanmonaghansciencefestival.ie

CAVAN MONAGHAN SCIENCE FESTIVAL 2018

will take place between 10th – 24th November.

It is proudly supported by Science Foundation Ireland (SFI) and both Monaghan and Cavan County Councils. Our aim is to inspire an interest in everything STEM related and show that Science is around us in everyday life.

As well as our various Public Events, we are delighted to present our Schools Programme for 2018. In this brochure you will find details of Free workshops for Preschools, Primary Schools and Secondary Schools.

How to Book:

- All events MUST be booked via Email to sciencefestival@monaghancoco.ie
- Bookings will be taken on a First Come First Served Basis.
- Initial Limit of 2 bookings per school. More slots may be assigned depending on Availability.
- Send your email to the email above with the following information:

Workshop Title	Venue	Number of students
Date	School Name	Teacher Name/Contact
Time	Class/Year	Any

Please note that each event lists the recommended age group/class and max numbers per workshop. There is no maximum number required

Important Note:

Photographs and/or videos may be taken during the Festival events for use on our website, social media channels or newspaper articles. If you DO NOT wish to have the students from your school included please let us know at time of booking.



PRESCHOOLS ACTIVITIES:



Tales from the Riverside Farm *with Alma Jordan*

Farms are great! There are Tractors, combine harvesters, moo moos (sorry we mean cows!), muck spreaders, chickens, do we need to go on? We love farms and life in the countryside, it's all there to enjoy and explore.

But we also want you to stay safe and to know when to play and when to stay away!

AgriKids is a farm safety educational platform with the ethos to engage, educate and empower children to be our farm safety ambassadors. If you would like Alma to come to your Preschool to read her stories and to chat about how you can be #farmsafe.

Please get in touch. Alma will be in the following areas and a schedule will be built around the expressions of interest via the booking email address.

Date	Location
Tuesday 20th November	Clones Area
Wednesday 21st November	Castleblayney Area
Thursday 22nd November	Ballybay Area

Engineering a Solution for The Three Billy Goats Gruff

Oh No! The terrible Troll is still under the Bridge and the Three Billy Goats Gruff will do anything to avoid him. How else could you cross the river if you can't use the Troll Bridge? Perhaps a boat? Perhaps a new Bridge? A librarian will visit your Preschool to read the Story of the Three Billy Goats gruff and follow it with some experimental activities for little hands. A schedule will be built a round Expression of Interests via the booking email address.

Date	Location
Tuesday 13th November	Monaghan Area
Thursday 15th November	Carrickmacross Area



PRIMARY SCHOOLS:



Our programme for primary schools supports The Discover Primary Science and Maths Programme (DPSM), managed by Science Foundation Ireland, which provides a national focus on STEM education in schools to ensure that we have an engaged society and a highly-skilled workforce in place. For 2017/18 academic year, 15 local primary schools across Cavan (9) and Monaghan (6) received awards for their work in the classroom and participating in programmes such as the Science Festival. We would encourage more primary schools to participate in this award scheme and the festival workshops will assist in this.



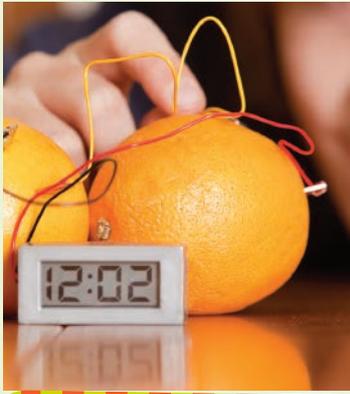
CSI Water

During this Science Festival both the Cavan and Monaghan Environment Section will facilitate CSI Water workshops. This workshop will include a presentation to demonstrate how our Environment Section staff undertake their enforcement work, laboratory work, sampling and biological monitoring. Children will get an opportunity to see the equipment used by Environmental Officers and examine a sample of the little bugs you can find in your local stream or river.

Duration: 90 mins

Dates	Location	Times	Age Group	Max Number
Monday 12th Nov	Clones Library	10am; 12:30pm	2nd-6th Class	30
Wednesday 14th Nov	Carrickmacross Library	10am; 12:30pm	2nd-6th Class	30
Friday 16th Nov	Castleblayney Library	10am; 12:30pm	2nd-6th Class	30
Tuesday 20th Nov	Ballybay Wetlands Centre	10am; 12:30pm	2nd-6th Class	30
Wednesday 21st Nov	Market House, Monaghan	10am; 12:30pm	2nd-6th Class	30





Science is Magic with Michael Moylan

Michael was such a hit last year we've invited him back for more! In this interactive show you will do the science experiments yourself. Why does static electricity make your hair stand on end? Can you hold a bucket full of water held upside down over your head and not get wet? How do you make a magnet with a wire, battery and a nail? How does a hot air balloon fly and how do I make my own one? The human body, sound, light, heat and many other subjects.

Duration: 60 mins

Dates	Location	Times	Age Group	Max Number
Monday 12th Nov	Carrickmacross Library	10am, 11:30am, 1pm	2nd-6th Class	60
Tuesday 13th Nov	Castleblayney Library	10am, 11.30am, 1pm	2nd-6th Class	30
Wednesday 14th Nov	Ballybay Wetlands	10am, 11.30am, 1pm	2nd-6th Class	90
Thursday 15th Nov	Clones Library	10am, 11:30am, 1pm	2nd-6th Class	30
Friday 16th Nov	Monaghan Library	10am, 11.30am, 1pm	2nd-6th Class	30



Design & Build a Space Alien Bot

What do you get when you combine recyclables, markers and a vibrating motor? The answer could be Anything! Let the children's imagination run wild as we help them to create a moving 'Alien' by mixing Art and Electrical engineering!

Duration: 60 mins

Dates	Location	Times	Age Group	Max Number
Monday 12th Nov	Castleblayney Library	10am, 11.30am, 1pm	7+	15
Tuesday 13th Nov	Carrickmacross Library	10am, 11:30am, 1pm	7+	15
Wednesday 14th Nov	Clones Library	10am, 11:30am, 1pm	7+	15



The Science of Flying

As part of Monaghan County Museum's nationally acclaimed exhibition 'The Monaghan Spitfire – Life on the Border with a World at War', students will be given an enjoyable introduction to the world of flight with some fun activities, interesting facts and cool demonstrations.

Duration: 2 hours

Dates	Location	Times	Age Group	Max Number
Monday 12th Nov	County Museum	10am	1st-6th Class	30
Tuesday 13th Nov	County Museum	10am	1st-6th Class	30
Wednesday 14th Nov	County Museum	10am	1st-6th Class	30
Thursday 15th Nov	County Museum	10am	1st-6th Class	30
Friday 16th Nov	County Museum	10am	1st-6th Class	30
Wednesday 21st Nov	County Museum	10am	1st-6th Class	30
Thursday 22nd Nov	County Museum	10am	1st-6th Class	30
Friday 23rd Nov	County Museum	10am	1st-6th Class	30



Storygate – Inventors and Their Stories

Every invention has its story. Some things were invented after years of trial and error. Some things were invented over night or even by accident! Come and join the storytellers Simone and Michael in this show that combines puppetry with science and storytelling. Watch as their story-donkey Dan Brody leads you through years of (dangerous) experiments and tells you the story behind famous inventions.

Duration: 60 mins

Dates	Location	Times	Age Group	Max Number
Monday 12th Nov	Monaghan Library	10am, 11:30am, 1pm	1st—4th Class	30
Tuesday 13th Nov	Clones Library	10am, 11:30am, 1pm	1st—4th Class	30



Investigating Geology

Where has this rock come from? What is it made of? Can geology really be used in CSI? The answers to these questions will be revealed through the Look Closer workshop run by iCrag. Through this workshop, participants will delve deep into geology and learn how to relate a tiny speck of sand to the largest of mountains, and how geology can be used to pick a murderer out from a line up of the usual suspects.

Duration: 60 mins

Dates	Location	Times	Age Group	Max Number
Tuesday 13th Nov	Monaghan Library	10am, 11.30am, 1pm	3rd – 6th Class	30

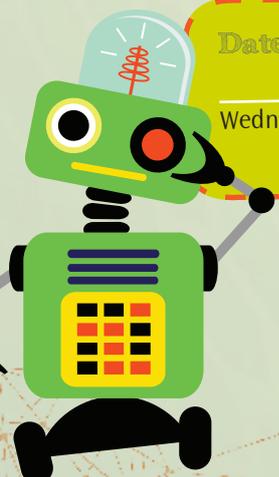


Are you a Guzzler?

Junior pupils meet Guzzler the puppet who loves to waste energy. Through a series of games and activities they learn about where our energy comes from, the importance of saving energy and the various ways they can save energy. Presented by Sustainable Energy Authority of Ireland (SEAI)

Duration: 60 mins

Dates	Location	Times	Age Group	Max Number
Wednesday 14th Nov	Castleblayney Library	10am, 11.30am, 1pm	Junior-1st Class	30





Marine Science with Benny Joyce

Children will have the opportunity to get up close and personal with Dolphin and Whale bones dolphins teeth. We speak about pollution affecting these wonderful creatures. We will also show the students macroscopic plankton (coccolithophorids) that do not need the use of a microscope and talk a little about each as indicators of water quality. Marine fossils and shells as indicators of pollution and biodiversity. Children will also have the opportunity to examine a beautiful selection of indigenous shells as well as shells from the tropical waters which were picked up on travels around Asia and Australia. As this programme is experiential, the participants will be given a first hand experience of seeing all the samples and equipment and how we collect, analyse and present our findings.

Duration: 60 mins

Dates	Location	Times	Age Group	Max Number
Wednesday 14th Nov	Monaghan Library	10am, 11.30am, 1pm	2nd-6th Class	30
Thursday 15th Nov	Carrickmacross Library	10am, 11:30am, 1pm	2nd-6th Class	30
Friday 16th Nov	Clones Library	10am, 11:30am, 1pm	2nd – 6th Class	30



Scotty's Circus Science

Help children learn about Physics through the Science of the Circus! The workshops will consist of plate spinning , diabolos and some balloon modelling . Each showing all types of forces, bends , pushes , pulls, gravity, friction and tension. The workshops are very interactive and hands in and ideal for children of all ages.

Duration: 60 mins

Dates	Location	Times	Age Group	Max Number
Thursday 15th Nov	Monaghan Library	10am, 11.30am, 1pm	1st – 6th Class	30
Friday 16th Nov	Carrickmacross Library	10am, 11:30am, 1pm	1st – 6th Class	60



Sustainable Me with Catherine Mc Guinness

This workshop is built on the three pillars of sustainable development and has a basis in ESD. Designed to improve the children's environmental literacy, the unit takes a fresh look at green living. Catherine McGuinness is an educator and workshop facilitator for over 10 years, working national institutions, festivals, museums, libraries, tv and radio. Among others she works with The National Museum, Dublin Zoo, EPIC The Irish Emigration Museum, the Tenement Museum, the National Print Museum, Science Foundation Ireland, CTYI, RDS and RTÉjr.

Duration: 60 mins

Dates	Location	Times	Age Group	Max Number
Monday 19th Nov	Carrickmacross Library	9.45; 11am; 12.30	Junior-1st Class	35
Tuesday 20th Nov	Castleblayney Library	9.45; 11am; 12.30	Junior-1st Class	35
Wednesday 21st Nov	Clones Library	9.45am; 11am; 12.30pm	Junior-1st Class	35
Thursday 22nd Nov	Monaghan Library	9.45am; 11am; 12.30pm	Junior-1st Class	35





Reimagining Rossmore Estate with Minecraft

Let the children immerse themselves in the virtual world of Minecraft then work together to recreate some of the buildings and structures of the Rossmore estate. Explore the finished work using the latest virtual reality and 3D printing technology. A workshop not to be missed!

Duration: 2 hours



Dates	Location	Times	Age Group	Max Number
Monday 19th Nov	County Museum	9.30am; 12pm	4th-6th class	30
Tuesday 20th Nov	County Museum	9.30am; 12pm	4th-6th class	30



Focus on Forces with Anyone4Science?

Focus on Forces - Standing on the floor, what force does the floor feel? Pulling hair? Magnetism and Rollercoasters? Can you make a human battery? Fantastic physics explores all these ideas and more, it can be adapted to suit children from 4 – 12 years. Workshops are:

Infants - Investigate forces and design, test and make a machine or mechanism to lift an adult.

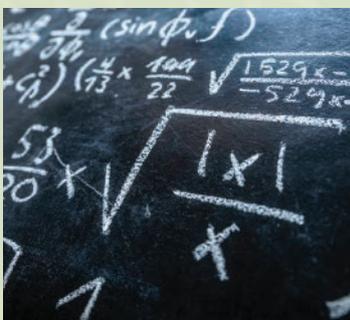
1st & 2nd - Investigate forces and design, test and make a machine or mechanism to lift an adult. The children also investigate how force and area are related and will get to try a pin cushion cushion cover (or bed of nails)

3rd & 4th - Investigate Hooke's Law and use the concept of it to test the strength of jelly sweets

5th & 6th - Investigate Hooke's Law and use the concept of it to make a weighing scales.

Duration: 60 mins

Dates	Location	Times	Age Group	Max Number
Tuesday 20th Nov	Carrickmacross Library	10am, 11:30am, 1pm	Junior – 6th	30
Wednesday 21st Nov	Monaghan Library	10am, 11:30am, 1pm	Junior – 6th	30



Mathemagic with Dr.Ken

Pick a card any card, How does that work? Is it really magic? This show is less sleight of hand and more dexterity in maths. Amazing magic tricks are performed and the maths revealed. Find out about card tricks, the Rubik's cube, the height of a Diabolo throw, juggling patterns, shape-shifting numbers and other astounding stunts and marvellous trickery!

Duration: 60 mins

Dates	Location	Times	Age Group	Max Number
Tuesday 20th Nov	Monaghan Library-St. Patrick's Hall	10am, 11.30am, 1pm	3rd – 6th class	100
Wednesday 2st Nov	Carrickmacross Library	10am, 11.30am, 1pm	3rd – 6th class	60
Thursday 22nd Nov	Clones Library (Courthouse)	10am, 11.30am, 1pm	3rd – 6th class	90
Friday 23rd Nov	Ballybay area	10am, 11.30am, 1pm	3rd – 6th class	90

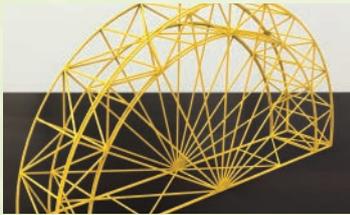


Bubbly Maths

Bubbly Maths Entertainers perform maths shows the UK and around the world, engaging audiences using mesmerising resources. The props? Magical soap bubbles and giant balloons. These are used to discover the maths & science of bubbles and to explore the mathematical fundamentals of shape and measurement.

Duration: 60 mins

Dates	Location	Times	Age Group	Max Number
Thursday 22nd Nov	Carrickmacross Library	10am, 11:30am, 1pm	Primary	60
Friday 23rd Nov	Monaghan Library	10am, 11:30am, 1pm	Primary	30



Spaghetti Engineering

Buildings are usually Bridges are typically made of steel and stone, Budding Engineers will get the chance to build their own structure using nothing but Spaghetti and Sticky stuff! Who will come up with the best load-bearing design? **Duration: 60 mins**

Dates	Location	Times	Age Group	Max Number
Friday 23rd Nov	Clones Library	10am, 11:30am, 1pm	Primary	30



Ozobot Problem-Solving Workshop

As part of the nationwide Problem-Solving Initiative, the ADAPT Centre for Digital Content Technology will facilitate Ozobots problem solving, programming and robotic workshops. Ozobots are pocket-sized smart robots that are programmable through hand-drawn colour-coded lines. Ozobots connect children to the world of robotics and teach them how to code, design and solve problems. This workshop aims to develop in students the collaborative problem-solving skills that are vital to subjects including Mathematics. It introduces concepts and experiences early in a child's lifetime that are increasingly present in everyday life. **Duration: 60 mins**

Dates	Location	Times	Age Group	Max Number
Friday 23rd Nov	Carrickmacross Library	10am, 1pm	5th & 6th class	30



Creative Approaches to Primary School – STEM in Education for Primary School Teachers

From puppets to play and from stories to sustainability this hands-on workshop, will explore a range of creative and inquiry based approaches to teaching and learning in primary science. There will be an opportunity to try out some of the suggested approaches and to discuss their suitability for your own practice. This research informed workshop will also give insights to the theory underpinning these approaches.

Dates	Location	Times	Age Group	Max Number
Tuesday 13th Nov	Monaghan Education Centre	7pm	Primary School Teachers	40

SECONDARY SCHOOL:



The possibilities for STEM graduates are truly endless. Students need to know that solitary lab jobs or doing a PhD are not the only pathways. In the modern world, where disruption and uncertainty defines the jobs market, graduates need to be flexible and creative to fill new and emerging roles. There is always a market for the type of critical and analytical thinkers that come from STEM courses. Through our festival events, we want to demonstrate this broad spectrum of STEM career paths that are available to our young people.



Digital Art & Animation Taster Session

In Ireland, the digital economy has exploded in recent years with hundreds of jobs being created every month in emerging creative sectors. Students will have the opportunity to find out about the Animation Process and then bring digital artwork to life using Adobe Animate.

Duration: 60 mins

Dates	Location	Times	Age Group	Max Number
Monday 12th Nov	Monaghan Institute	1-2pm	15 – 18 Years	25
Monday 19th Nov	Monaghan Institute	1-2pm	15 – 18 Years	25

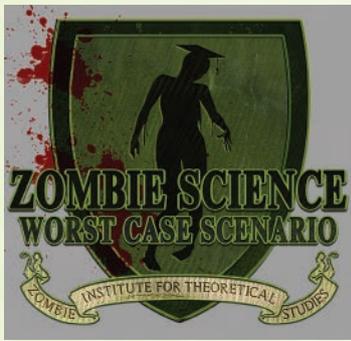


IJM Timber frame Factory Tour

Since 1965, IJM have been manufacturing quality timber frame buildings for the Irish & UK markets. Their technology allows for the efficient building of bespoke housing, hotels, apartments etc. As you can imagine there are a wide variety of Technological and Engineering solutions used within the Factory. This is an opportunity for Young People to see first-hand a wide variety of Career opportunities in a dynamic company within their local area.

Duration: 2 hours

Dates	Location	Times	Age Group	Max Number
Tuesday 13th Nov	IJM, Old Armagh Road, Monaghan	10am – 12pm	15 – 18 Years	25
Tuesday 20th Nov	IJM, Old Armagh Road, Monaghan	10am – 12pm	1st – 6th years	25



Zombie Science – Worst Case Scenario

Worst Case Scenario is the second show in the Zombie Science spoof lecture series which has attracted audiences of over 36,000 at more than 400 lectures across the UK and Ireland performances at the London Horror Festival and Green Man Festival. Zombie Science: Worst Case Scenario focuses on identifying, containing and controlling disease, and at key points in the show, the audience is invited to vote on courses of action that will determine the outcome of the show. Only science can save you from the worst case scenario!!!

Duration: 60 mins

Dates	Location	Times	Age Group	Max Number
Tuesday 13th Nov	Monaghan Library - Market House	10am, 11:30am, 1pm	Age 15+	40
Wednesday 14th Nov	Carrickmacross Library	10am & 11:30am	Age 15+	40



Crash Course in Photo Editing

Is there a teenager alive who doesn't know how to 'filter' their photographs? But what about doing it the way the professionals do it. Students will discover how to manipulate, edit and add special effects to photographs using Adobe Photoshop.

Duration: 60 mins

Dates	Location	Times	Age Group	Max Number
Tuesday 13th Nov	Monaghan Institute	1-2pm	15-18 Years	25
Tuesday 20th Nov	Monaghan Institute	1-2pm	15-18 Years	25



Combilift Factory Tour & Presentation

Innovation, Flexibility and Service is the ethos on which Combilift's success is built and has seen them become the world's fastest-growing forklift manufacturer, exporting to more than 85 countries and with more than 40,000 trucks in use worldwide. Engineering is at the heart of Combilift and students who avail of this Factory tour will have a chance to see for themselves how this Global leader operates on a daily basis as well as learning about the broad range of STEM based Careers within the company.

Duration: 2 hours

Dates	Location	Times	Age Group	Max Number
Wednesday 14th Nov	Combilift	11am – 1pm	1st – 6th year	30





Science Behind Wearable Technologies

The scientists and researchers in the AMBER (Advanced Materials and BioEngineering Research) centre and The Science Gallery, Trinity College will facilitate very interesting engaging workshops about the science behind wearable technologies with hands-on activity to make and build some wearable technologies. Materials science has been described as the science of stuff! At AMBER they are researching materials that will transform everyday products of the future, from mobile phones to knee implant, batteries to beer bottles. They bring together Ireland's leading material science researchers working across the disciplines of Physics, Chemistry, Bioengineering and Medicine; with an international network of collaborators and companies.

Duration: 90 mins

Dates	Location	Times	Age Group	Max Number
Thursday 15th Nov	Carrickmacross or Castleblayney Area	11am-12.30pm 1.30pm-3pm	1st – 3rd years	30



The Ugly Animal Roadshow

Presented by Simon Watt

At the Ugly Animal Preservation Society, we celebrate and explore the incredible biology of the animal kingdom's most monstrous. What adaptations make them amazing? How did such hideous creatures evolve in the first place? The show features videos, demonstrations and lots and lots of audience participation. This show has been hailed as an example of British Science Communication at its best and has been performed as part of a tour of Canada, Ireland and the UK as well as in Bulgaria, Mexico and the USA. **Duration: 60 mins**

Dates	Location	Times	Age Group	Max Number
Friday 16th Nov	Clones Library	9:30am, 11:30am	12+	30
Friday 16th Nov	Monaghan Library	2pm	12+	30



Secrets of Superhero Physiology

Superheroes such as Captain America, Wonder Woman, Spider-Man and Wolverine all possess incredible superpowers and these characters gained their superpowers in unique ways. For example, Captain America was subject to an experimental super-soldier treatment, a radioactive spider bit Spider-Man, and Wolverine's regenerative healing powers are due to natural genetic mutations. On the other hand, Wonder Woman is an Amazonian god, and her DNA is likely to differ considerably from human DNA. One important aspect of many superheroes is that they possess a unique physiology, which refers to

how the body functions or works everyday. In the Secrets of Superhero Physiology, you will learn about the physiology of many of your favourite superheroes and by how much their physiology differs from the physiology of your body. You'll hear about the advanced eyesight of Hawkeye, the impenetrable skin of Colossus, the effects of different radiation types on Supergirl, and what happens to the human body when you could shrink like Ant-Man or the Wasp. **Duration: 60 mins**

Dates	Location	Times	Age Group	Max Number
Monday 19th Nov	Castleblayney	9:30am, 11:30am	12+	30
Monday 19th Nov	Ballybay	2pm	12+	30





Get Cultured...with Bacteria

During this hands-on taster session students will be shown basic microbiology techniques from media sterilisation techniques, preparation of culture media, streak plate techniques and how to analyse plates.

Duration: 90 mins

Dates	Location	Times	Age Group	Max Number
Tuesday 20th Nov	Monaghan Institute	11.30am – 1pm	16-18 years	18



Sports Drinks – Thinking about what you're Drinking!

This is an interactive session where participants will engage with thinking about the nutritional aspects of sports drinks with a focus on quantities of sugar. This session includes a demonstration of the impact of sports drinks on different systems of the body. **Duration: 45 mins**

Dates	Location	Times	Age Group	Max Number
Wednesday 21st Nov	Monaghan Institute	11.30am	12-18 Years	18



Hydraulics Demonstration

Hydraulics can be defined as the science that deals with the laws governing water or other liquids in motion and their applications in engineering. This workshop will demonstrate of a range of Hydraulic equipment giving participants the opportunity to see close-up how hydraulics function mechanically. **Duration: 45 mins**

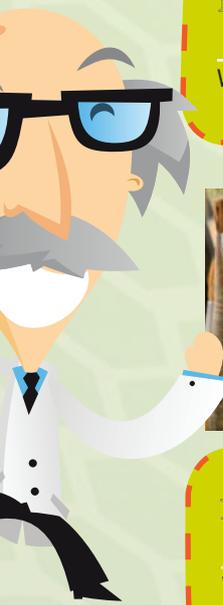
Dates	Location	Times	Age Group	Max Number
Wednesday 21st Nov	Monaghan Institute	11.30am	15-18 Years	12



Kinetic Painting Taster Sessions

Participants will have a hands-on experience of exploring the properties of dry and wet paint in relation to movement on large canvas. This paint session is based around the painter Paul Jackson Pollock a major figure in the abstract expressionist movement. He was well known for his unique style of drip painting. **Duration: 60 mins**

Dates	Location	Times	Age Group	Max Number
Wednesday 21st Nov	Monaghan Institute	11.30am–12.30pm	12-18 Years	12
Thursday 22nd Nov	Monaghan Institute	11.30am–12.30pm	12-18 Years	12





The Science of Aircraft Decompression

Ever wondered why your ears pop when you're flying? This session will focus on how decompression of an aircraft affects passengers and cabin crew. Participants will learn how cabin crew recognise and deal with aircraft losing cabin pressure.

Duration: 60 mins

Dates	Location	Times	Age Group	Max Number
Wednesday 21st Nov	Monaghan Institute	11:30am–12:30pm	12-18	15



The Science of Hairdressing

Hair Care has a broad range of science behind it. In this workshop Participants will get to take part in an experiment to test the Potential Hydrogen (PH) of various products used in Hairdressing services.

Duration: 60 mins

Dates	Location	Times	Age Group	Max Number
Thursday 22nd Nov	Monaghan Institute	11:30am–12:30pm	15–18 Years	20



The Science & Technology behind Good Skincare

We are always told to Cleanse, tone and Moisturise but thanks to modern technology and science there is extra help available to achieve glowing skin. Participants will have the opportunity to learn about the science and technology used within the Beauty Industry to improve skin conditions. **Duration: 60 mins**

Dates	Location	Times	Age Group	Max Number
Thursday 22nd Nov	Monaghan Institute	10am – 11am	15–18 Years	16



Learning Logic with MicroBit

Introduction to Boolean Logic using the Microsoft MicroBit. Boolean represents the simplest of all the logics and the very basic of computing. Participant will design, develop, debug and deploy code. **Duration: 2 hours**

Dates	Location	Times	Age Group	Max Number
Friday 23rd Nov	Monaghan Institute, Room S09	11am – 1pm	15–18 Years	20





Transitioning to a Low Carbon Economy

The presentation will cover how ESB is leading the way to a low carbon future and how the electricity we use is produced distributed and consumed in both homes and industry. It will focus on how students can help become more energy efficient in both their school and their homes, this will cover e-cars, home energy efficiency improvement and solar PV generation and battery storage. Enda Gilroy, Senior Energy Consultant with ESB, and Chartered Engineer who has gained significant experience both in Ireland and Internationally in the industry over the past 12 years. Enda has been involved in the design and co-ordination of a variety of projects, particularly Educational, Food & Beverage, Medical Devices, Pharmaceutical and Data Centre sectors. He is actively involved in developing key areas in the design and solution with regard to sustainability and energy efficiency in buildings. **Duration: 60 mins**

Dates	Location	Times	Age Group	Max Number
Wednesday 14th Nov	Ballybay area	2pm	15-18	60



Being a Fire Officer

When you think of a Fire Fighter, do you still think of a Man? Siobhan Mc Kenna is the Assistant Chief Fire Officer with Monaghan Council and will visit your Secondary School to talk about a career in Fire Safety. Her talk will cover what it means to be a member of the retained fire service, the fire officer role which requires a science/ engineering background and roles in private consultancy. **Duration: 45 mins**

Dates	Location	Times	Age Group	Max Number
Monday 19th Nov	Carrickmacross or Castleblayney Area	11am	1st – 6th year	60



Women in STEM

We need to champion STEM at the earliest stages of girls' education to bring more women into science. From the earliest stages of our children's education, gender boundaries are established. Unfortunately, whether it is because of the toys they are given or inherently gendered classroom practises, many young women grow up not envisioning a career in science. This is a terrible shame, as they are not only excluding themselves from a whole range of well paid jobs in the dynamic STEM sector but are also depriving that male-dominated sector of the different perspectives women have to offer. To bring more women into the STEM, we need to address how girls view science and scientists from the earliest stages of childhood.

Join Dr Marion Palmer, an experienced academic and higher education manager, former Women in Technology & Science (WITS) Chair and a long-term member of the Executive Committee of WITS for an insight in career paths for women in STEM. She was head of the Department of Technology and Psychology at Dun Laoghaire Institute of Art, Design and Technology (IADT). Her research interests are teaching, assessment and technology enhanced learning. Prior to joining IADT Marion was a science teacher and also worked in curriculum development. **Duration: 45 mins**

Dates	Location	Times	Age Group	Max Number
Wednesday 21st Nov	Carrickmacross Area	11am	1st – 6th year	60

OTHER ACTIVITIES

COMPETITIONS



PLASTIC POLLUTION AWARENESS POSTER COMPETITION

All Primary and Secondary Schools in County Monaghan are invited to enter a poster competition to raise awareness of water quality in our rivers and lakes.

- Open to all ages attending schools in County Monaghan.
- Must be on A3 landscape page
- Theme is Plastic Pollution.
- Winner will be announced at the beginning of the festival.
- Winning entrant will receive a prize and an outdoor event/school trip for the class depending on class size.
- Winning poster will be displayed on a billboard in County Monaghan during the Festival
- Please send all entrants to Donna McEvoy, Environment Section, Monaghan County Council, Riverside Rd, Carrickmacross, Co. Monaghan before Monday 22nd October 2018 with students name, age, class/year, teacher, school name and address.

DESIGN A MONAGHAN SPITFIRE LEGO COMPETITION

In association with Monaghan County Museum 'Monaghan Spitfire' exhibition, we are looking for children and young people to design and build their own Monaghan Spitfire.

- Age Categories
8 year and under
9-13 years
- Entries can only be submitted with entry form on Thursday November 1st or Friday 2nd 2018 at any Library in County Monaghan. Late Entries are not accepted
- Winners will receive an awesome LEGO prize!
- Entry forms are available from any library in County Monaghan, online at www.cavanmonaghansciencefestival.ie or email sciencefestival@monaghancoco.ie



STEM PRIMARY SCHOOL QUIZ

Thursday 15th November at 6.30pm | Glencarn Hotel, Castleblayney

Open to all primary schools in County Monaghan. Each school can send 2 teams, 4 on each team. Each team must be consist of one adult (18+), and three primary school students. Closing date for booking is strictly Friday 9th November. Booking can be made sending email with School Name, Members of Team and contact details to sciencefestival@monaghancoco.ie

