

# Midlothian Science Festival

8th - 22nd October 2016

Principal funders:



THE UNIVERSITY OF EDINBURGH

Major Partners:

Midlothian Ranger Service  
Queen Margaret University  
Rosslyn Chapel  
The Roslin Institute  
Midlothian Libraries

Midlothian Councillors  
that supported the 2016  
Midlothian Science Festival

Cllr. Ian Baxter  
Cllr. Jim Bryant  
Cllr. Bob Constable  
Cllr. Joe Wallace

Partners:

British Science Association  
Centre for Ecology & Hydrology  
Cosmos Planetarium  
EAE Distribution  
Glencorse Centre  
GMP Print Solutions  
IKEA  
MacTaggart Scott  
Melville housing  
Midlothian Tourism Forum  
Original Inn Roslin  
Roslin British Legion  
SCI-FUN Roadshow: from the  
University Of Edinburgh  
Stewart Brewing



@MidlothSciFest



/MidlothianScienceFestival



midlothscience



Produced for Midlothian Science Festival by GMP Print Solutions using vegetable based inks on FSC approved paper. In addition, all the carbon emissions generated in the printing of this brochure will be offset by planting broadleaved trees in a local community woodland resulting in the print becoming completely carbon balanced.



## VOGRIE COUNTRY PARK

### DISCOVER GEOCACHE



## OFFICIAL GEOCACHE

PLEASE DO NOT DISTURB!  
This is an official game piece.

Refer to [GEOCACHING.COM](http://GEOCACHING.COM) for details.

Discover the world of geocaching with help from our geocaching friends in Midlothian. There will be help on hand if you have never had a go at this techno treasure hunt or if it is all old hat to you, come along to find some of our new caches.

Sat 8<sup>th</sup>  
1pm to 4pm

Vogrie Country Park

All welcome

**DROP IN** **FREE**

### CAMPFIRE COOKING AND KELLY KETTLE TEA CHALLENGE



Learn to turn sparks into flames and fires into cups of tea. We will be using our best bush craft skills to whistle up the Kelly kettle and toast marshmallows to perfection!

Sturdy footwear (wellies recommended), warm and waterproof clothes in case of bad weather.

Mon 17<sup>th</sup>  
1pm to 4pm

Vogrie Country Park

Over 10 yrs

**Book by calling 01875 821716** **FREE**

### OPEN BOOK AND SOUP!



Join us in this beautiful old house for a discussion based around the book, A State of Wonder by Ann Patchett, a story of a pharmacologist, Marina Singh, who travels into the Amazonian jungle to spend time with the mysterious Lakashi tribe. We will also have a lentil soup lunch in celebration of it being International year of pulses. (donations)

Vogrie House

Over 10 yrs

**Book by calling 01875 821716** **DONATIONS**

Thu 13<sup>th</sup>  
12pm to 2pm

Saturday 22nd 11am to 3.30pm

## Science on the Wild Side at Vogrie



Come and celebrate science outdoors at Vogrie with the Ranger Service and a host of scientists. **Out in the park**, help diagnose sick trees with tree health scientists, find out what's lurking in the pond or try and spy some archaeology. **Under canvas** drop in to a treasure chest of bugs and bones, make your own archaeology jigsaw, explore butterfly DNA. Thought you knew the difference between solids and liquids – think again! Guided walks, woodland art with artist Ann Gilchrist, cycling fun with RUTS and lots of hands-on, family fun activities.



Vogrie Country Park & House

All welcome

Tree Tops cafe open!

**DROP IN** **MOST ACTIVITIES FREE**

Sunday 9th

## Dog Day: The science behind the wag

### Ever wondered why dogs

**do what they do?** Find out with experts in dog behaviour and canine researchers from the Royal (Dick) School of Veterinary Studies and The Roslin Institute at the University of Edinburgh, at a fun afternoon of dog science for all the family (dogs included).

Food and drink will be available all afternoon.

Learn about how we shape our pets' behaviour (for good or bad), and about what their behaviour can tell us. Watch or have a go with agility and obedience demonstrations by the Midlothian Dog Training Club, then see how your own pooch gets on in the "corridor of temptation"!

Plus you can ask our panel of experts all your dog behaviour questions and find out how scientists are linking dog's DNA to everything from the diseases they develop to the shape of their skulls. All this and lots more hands on / paws on activities.



Vogrie Country Park Event Field

All welcome

**DROP IN** **FREE**

Sunday 16th

Auchendinny

## Volcano and Dino Day

11am to 3pm



Join in the fun as we transform the Glencorse centre and explore the amazing world of Volcanoes and Dinosaurs with a series of workshops and drop in activities. The first hour of this event is open for people with autistic spectrum conditions and their carers.



THE UNIVERSITY of EDINBURGH

Glencorse Centre

Families

**DROP IN** **FREE**

## ROSLIN AND ROSEWELL

### SCOTLAND'S INDUSTRIAL PAST - WILSONTOWN IRONWORKS



Join Emma Stewart of the Forestry Commission Scotland as she talks about an unique heritage project in the heart of a long disused industrial site.

**Mon 10<sup>th</sup>**  
7.30pm to 9pm  
14+  
Roslyn Chapel  
[BOOK ONLINE](#) **FREE**

### PUB QUIZ

## Midlothian Science Festival Pub Quiz!

Give your brain cells a workout at our traditional pub quiz. Yes, there will be a science round - and a Dolly the Sheep prize!

**Thu 13<sup>th</sup>**  
7pm to 10pm  
All  
The Original Inn, Roslin  
[JUST TURN UP FOR START](#) **FREE**

### HONEY BEES – PAST, PRESENT AND FUTURE



Journey from the medieval understanding of honey bees to cutting edge science with historian Richard Almond and, scientist and beekeeper, Mark Barnett.

**Wed 19<sup>th</sup>**  
7.30pm to 9pm  
Adult  
Roslyn Chapel  
[BOOK ONLINE](#) **£3.50**

### MEDIEVAL CONSTRUCTION AND LEGO!



Come and view the amazing lego apprentice pillar, and explore medieval building methods with lego drop in sessions all day. Plus quiz!

**Week 17<sup>th</sup> - 21<sup>st</sup>**  
11am to 3pm  
Families  
Roslyn Chapel  
[Included with chapel pass or daily ticket.](#)  
[DROP IN](#)

### ROSLIN GLEN BAT WALK



Let's go batty and join the Ranger Service for a sunset ramble in Roslin Glen and discover the secret lives of the bats that live there. Wrap up and bring a torch.

**Tue 11<sup>th</sup>**  
6pm to 8.30pm  
All  
Roslin Glen Car Park  
[Book by calling 01875 821716](#) **FREE**

### FILM - 'Inside out' with brainy fun activities!



Oscar winning film and hands-on fun session about emotion types and brain circuits for memory - 2 of the film's key themes.

**Fri 14<sup>th</sup>**  
2pm to 4.30pm  
Families  
Roslin British Legion  
[FREE \(donation to British Legion\)](#)  
[BOOK ONLINE & @ ROSLIN LIBRARY](#)

### MEET THE COWS



Take a tour of Langhill Farm to meet our cows and find out about dairy farming in the 21st century - wellies essential!

**Wed 19<sup>th</sup>**  
11am to 12.30pm  
Adults and children 7+  
Langhill Dairy Farm EH25 9ST  
[BOOK ONLINE](#) **FREE**  
\*Children must be with an adult.

### ROSSLYN REMAINS - ARCHEOLOGY AT THE CHAPEL



AOC talk about the medieval remains found in Roslyn Chapel during the recent restoration work.

**Fri 21<sup>st</sup>**  
7.30pm to 9pm  
14+  
Roslyn Chapel  
[BOOK ONLINE](#) **£3.50**

Saturday 8th

## Easter Bush Campus Open Day

12noon to 4pm Roslin Institute All welcome

Roslin - Easter Bush Campus

[DROP IN](#) **FREE**



Visit the University of Edinburgh's Easter Bush Campus and see behind the scenes at The Roslin Institute building, home to scientists from The Roslin Institute and Scotland's Rural College. Meet our scientists and vets from the Royal (Dick) School of Veterinary Studies, hear about their work, take a tour of the building and get hands-on with fun activities suitable for all the family.

Dolly's café at The Roslin Institute will be open for lunches, drinks and snacks throughout the afternoon.



Free parking is available on site.

### SCIENCE FUN DROP IN



Look out for local adverts for a range of fun science activities in Midlothian's smallest library! Activities include: build a rocket, Lego bridge building and a session with the Smoothie Bike.

Roslin Library  
All welcome  
[DROP IN](#) **FREE**

Various

## ROSEWELL

### STARGAZING WITH COSMOS - EARLY SESSION



Bring your budding astronauts & scientists along to join the team from Cosmos Planetarium for a night of stargazing.

**Thu 20<sup>th</sup>**  
6pm to 7.30pm  
Families  
Rosewell Pavilion  
[BOOK ONLINE](#) **£3.50**

### STARGAZING WITH COSMOS - LATE SESSION



Image courtesy ESOB. Tafreshi (twanight.org)

Join Cosmos Planetarium for a night of stargazing, using an array of telescopes and binoculars.

**Thu 20<sup>th</sup>**  
7.45pm to 9.15pm  
12+  
Rosewell Pavilion  
[BOOK ONLINE](#) **£3.50**

## LOANHEAD

### LIFE THROUGH A LENS



Pop in to get hands on with microscopes. See a stunning hidden world!

**Mon 17<sup>th</sup>**  
2pm to 4pm  
All welcome  
Loanhead Library  
DROP IN FREE

### LOANHEAD CODING CLUB TASTER SESSION



Ever wanted to make your own games and animations? Come along to this free, fun taster for coding at Dalkeith Library and you'll be well on your way!

**Fri 14<sup>th</sup> & 21<sup>st</sup>**  
3pm to 4pm  
8 - 11yrs  
Loanhead Library  
Book by calling 0131 4400824  
DROP IN FREE

### DOLLY MEMORIES - 20 YEARS ON



It's the 20<sup>th</sup> anniversary of the birth of Dolly the Sheep at the Roslin Institute. Visit our pop-up exhibition of memories we've collected so far and add a contribution to the project via our Dolly Memories postcards or website.

**Mon 10<sup>th</sup> - Fri 14<sup>th</sup>**  
10am to 9pm  
All welcome  
IKEA, Loanhead  
DROP IN FREE

### UNTANGLING RESILIENCE TO DEPRESSION



What makes some people more able to withstand life's knocks than others? Expert researchers will explore this tonight.

**Thu 20<sup>th</sup>**  
6.30pm to 8.30pm  
Adult  
IKEA, Loanhead  
BOOK ONLINE/TICKET ON NIGHT  
DROP IN FREE

### LOANHEAD POP!



Bubble show with a scientific twist.

**Tue 18<sup>th</sup>**  
3pm to 4pm  
Families  
Loanhead Library  
DROP IN FREE

### STEWART BREWERY TOUR



Tour, talk and tasting with Master Brewer Steve Stewart. Find out about the science of brewing.

**Fri 14<sup>th</sup>**  
7pm to 9pm  
Adults (Over 18)  
Stewart Brewing  
BOOK ONLINE £6

### THE CHEMISTRY SHOW



Expect bangs, flames and foam as Midlothian's favourite chemists delight us with their action packed show. With Paul Murray and Robin Andrews.

**Mon 17<sup>th</sup> Wed 19<sup>th</sup>**  
2pm to 3pm 2pm to 3pm  
All  
IKEA, Loanhead  
BOOK ONLINE/TICKET ON DAY FREE

### ALL THINGS GLOWING



Have some fluorescent fun and make a glow in the dark nightlight. The early session is for children with additional support needs and their carers.

**Mon 17<sup>th</sup> & Tue 18<sup>th</sup>**  
9.45am / 10.30am / 11am / 11.30am  
5-12yrs  
IKEA, Loanhead  
TICKETS ON DAY\* £2  
\* First come, first served.

## PENICUIK

### FILM - THE MARTIAN



Film about an astronaut stuck on Mars. Talk by expert on life in extreme environments, Charles Cockell from Edinburgh University.

**Sun 9<sup>th</sup>**  
7pm for 7.30pm  
Penicuik Town Hall 12+  
ADULTS £6, STUDENTS £5, UNDER 13's £3 PAY ON THE DOOR

### BUILD IT SCOTLAND!



Build a virtual Scottish landmark. What will you build? Newbattle Abbey? The Viaduct? We will send to BBC Build IT 3D map of Britain!

**Sat 15<sup>th</sup>**  
10am to 12pm  
**Sun 16<sup>th</sup>**  
1pm to 3pm  
7 - 14yrs  
Penicuik Library  
DROP IN FREE

### BUILD A BISCUIT CITY



What facilities do people need to live in a town or city? Come and build an edible construction site. Yum!

**Mon 17<sup>th</sup>**  
1pm to 3pm  
9 - 13yrs  
Penicuik Library  
DROP IN FREE

### BUILD A LEGO BRIDGE



Design and construct your own version of the new Forth crossing from Lego blocks. Span the river - but make sure your bridge can take the traffic!

**Fri 21<sup>st</sup>**  
2pm to 3.30pm  
7 - 12yrs  
Penicuik Library  
DROP IN FREE

### LIFE THROUGH A LENS



Pop in to get hands on with microscopes. See a stunning hidden world! \*For people with additional support needs and their carers and families.

**Sun 9<sup>th</sup>**  
3pm to 4pm  
Families  
Beeslack Community High School  
BOOK ONLINE & @ VENUE FREE

### ESCAPE THE CELL



An escape room - your team must work to crack codes in order to escape. Using real biological codes. Brilliant fun for adults and teenagers alike. All must contribute!

**Tue 18<sup>th</sup>**  
3pm to 8pm  
12+yrs  
Penicuik Library  
BOOK ONLINE & @ VENUE FREE

### HOW BIOLOGY DEPENDS ON MODELS



Dr. Patrick Heun from University of Edinburgh is hosted by U3A. Find out how model organisms have been immensely helpful to biology, and the study of inheritance, health and disease.

**Thu 20<sup>th</sup>**  
2pm to 3pm  
Adult  
Penicuik Town Hall  
BOOK ONLINE & @ VENUE £2 (Free to members)

### GO BATTY AT THE PENICUIK ESTATE



Join a Penicuik Estate Ranger as we hunt for these fascinating creatures during an evening stroll around the estate.

**Fri 21<sup>st</sup>**  
6.30pm to 8.30pm  
Families  
Penicuik House Estate  
Book by calling 01968 670738  
Adults £3, Children £1



Activities for kids every Friday afternoon, all year round.  
[www.ikea.co.uk/edinburgh](http://www.ikea.co.uk/edinburgh) for full details.

KITCHEN SINK SCIENCE



A range of fun science experiments that can easily be done with things you find at home.

**Fri 21<sup>st</sup>** 6-11 (under 8 with adult) **Lasswade Library**  
2pm to 3pm **BOOK ONLINE & @ VENUE FREE**

SCIENCE CRAFT FUN



Lots of fun can be had while we think and talk as we craft on a science theme!

**Sat 15<sup>th</sup>** 10am to 11am **Lasswade Library**  
Families **DROP IN FREE**

SUPERCOMPUTERS FOR BIG (AND LITTLE) PROBLEMS



Try out our portable "Supercomputer", to solve problems and learn about ARCHER, the UK's fastest supercomputer in areas from palaeontology to cosmology.

**Lasswade Library**  
All welcome **DROP IN FREE** **Thu 13<sup>th</sup>**  
3pm to 5pm

Saturday 15th  
**Science Alive Gala Day**

Lasswade Centre 10.30am to 3.30pm

*Our packed day of life science has something for all! Workshops, drop in activities and lots of amazing scientists ready to show you their world.*



This year we present the superb dome film experience *Cell!, Cell!, Cell!*. It's the story of who we are.

Get your tickets for the show online, some also available on the day, book on arrival.

**BOOK FILM ONLINE OR ON THE DAY £2**



THE UNIVERSITY of EDINBURGH

Families

**DROP IN FREE**

POND DIPPING AND MINIBEAST HUNTING AT SPRINGFIELD MILL



Join us on an ecological expedition here on the former paper mill site, which is now a lovely nature reserve nestling in the Esk Valley. We will have all the equipment to go in search of the land and watery wee beasties. (Meet at site entrance)

**Sun 9<sup>th</sup>** 1pm to 4pm **Lasswade Library**  
All welcome **DROP IN FREE** **Springfield Mill, Polton**

RIVER ESK - PAPER MAKING TO WEIRS, FISH AND POWER.



5 mile walk from Springfield Mill with Rangers: take in weirs, meet Forth Fisheries, Engineers at Roslin Renewables. End at Roslin Glen Weir. Free bus back to start.

**Tue 11<sup>th</sup>** 10am to 4pm **Lasswade Library**  
Over 10yrs **Book by calling 01875 821716 FREE** **Springfield Mill, Polton**

Computers

**BOOK ONLINE & @ VENUE**



**Video Game Design** **£15**  
**Sat 8<sup>th</sup>** 10am - 12.30  
**9 - 13yrs**

Use Xbox controllers to create a range of terrains, worlds and characters, controlling the characters' movement, sound and vision using an intuitive icon-based programming language.

**Gorebridge Library**



**Lego Robotics** **£7.50**  
**Fri 14<sup>th</sup>**  
**6 - 9yrs** 2pm - 3.15pm  
**9 - 13yrs** 3.30pm - 4.45pm

Using the latest Lego robotics technology to build and program amazing creatures which can move using motors, gears and wheels.

**Mayfield Library**



**App Developer** **£15**  
**Thu 20<sup>th</sup>** 2pm - 4.30pm **9 - 13yrs**

Whether it's for an iPhone or android you will learn the essentials of designing and programming a mobile app which you can then use at home. Perfect for first-timers and loaded with features for the more adventurous.

**Loanhead Library**



**Computer Music Producer** **£15**  
**Sat 8<sup>th</sup>** 10am - 12.30  
**9 - 13yrs**

Hip Hop, Rock, Ballads or Reggae ... write music then publish online! Edit sounds, use instruments, add vocals - the musical possibilities are endless!

**Penicuik Library**



**Solve Puzzles. Invent Medicine.** **DROP IN FREE**  
**Tue 18<sup>th</sup>** 3pm - 8pm  
**12+ yrs**

A computer-based citizen science event, where you learn to create and fold RNA computer puzzles, and when you get good enough, your molecule will be created in a lab and could help provide a diagnostic tool for Tuberculosis.

**Penicuik Library**

## DANDERHALL

### CHEMICAL TRANSFORMATIONS



A fun session, using everyday materials to experiment and explore transforming things. Watch orange juice turn to slushy!

**Fri 21<sup>st</sup>**  
2pm to 3.30pm  
5-12yrs  
Danderhall Library  
BOOK ONLINE & @ VENUE FREE

### FILM - THE MARTIAN



A showing of the film 'The Martian' with a short talk by Professor Ken Rice, Astrophysicist from the University of Edinburgh. Read the book beforehand if you can!

**Fri 21<sup>st</sup>**  
6pm to 9.30pm  
12+  
Danderhall Library  
BOOK ONLINE & @ VENUE FREE

## Monday 17<sup>th</sup> Mini Science Gala Day

12 noon to 4pm

An amazing afternoon with scientists from Edinburgh University. Featuring 'Finding the arc in architecture', and 'Tidal wave power'. Plus launch a rocket!

Danderhall Library

Families

DROP IN FREE



## Thursday 20<sup>th</sup> SCI-FUN Roadshow

10am to 11am for people with additional support needs.  
11am to 4pm for the general public.

Join the fun at this interactive mobile science centre from the University of Edinburgh, featuring a wide variety of science ideas. Explore over 50 hands-on activities in one space; there is truly something for the whole family. The first hour of this event is for all those with autism spectrum disorder and their families.



Dalkeith Library & Arts Centre

Families Pop-up cafe open!

DROP IN FREE

THE UNIVERSITY OF EDINBURGH  
THE SCI-FUN ROADSHOW

## DALKEITH

### PHANTASMAGORIA - FANTASTIC IMAGES!



The fascinating story of the history of photography and a Victorian Travelogue of historic images using a Magic Lantern.

**Thu 13<sup>th</sup>**  
7pm to 9pm  
14+  
Dalkeith Corn Exchange  
BOOK ONLINE FREE

### CODING CLUB TASTER SESSION



Ever wanted to make your own games and animations? Come along to this free, fun taster for coding at Dalkeith Library and you'll be well on your way!

**Sat 15<sup>th</sup>**  
11am - 12pm  
8 - 11yrs  
Dalkeith Library  
Book by calling 0131 6632083 FREE

### SCIENCE OF SMOOTHIES



Join us for a fun session using pedal power to transform ingredients into delicious smoothie drinks.

Nutrition and exercise, energy and tastebuds ... All will be explored!

**Wed 19<sup>th</sup>**  
10am to 12pm  
Families  
Dalkeith Library  
DROP IN FREE

## Friday 14<sup>th</sup> Park In The Dark

5pm to 8pm

Park in the dark is back! With more lantern fun with and a party atmosphere with music, lanterns and reflections on the science of light.

Light' entertainment for all the family! Make and bring along a lantern for the parade and maybe win a prize!



Images courtesy of Black Diamond Radio

Dalkeith Kings Park

Families DROP IN FREE

## NEWTONGRANGE

### READING INTO FORENSIC SCIENCE

# A Study in Scarlet

By Sir A. Conan Doyle  
Writer of the World's Most Fascinating Detective Stories



**Open book event:** A study in Scarlet, Arthur Conan Doyle, written in 1887. Read the book and come and discuss the first appearance of Sherlock Holmes.

**Tue 11<sup>th</sup>**  
7pm to 9pm  
Adult  
Newtongrange Library  
BOOK ONLINE & @ VENUE FREE

### BEAUTY LAB: INSIDE AND OUT



Think about the science behind beauty products while creating your own, indulge in a massage, and pedal up a smoothy on our custom built bike!

**Wed 12<sup>th</sup>**  
7pm to 9pm  
Ladies 14 and over  
Newtongrange Library  
BOOK ONLINE & @ VENUE FREE

### BUILD A BISCUIT CITY



Newtongrange marks Scotland's year of innovation architecture and design by inviting you to come and build a city... using (and munching) biscuits.

**Fri 21<sup>st</sup>**  
2pm to 3.30pm  
All welcome  
Dalkeith Library  
DROPP IN FREE

## Wednesday 19<sup>th</sup> Mini Science Gala Day

12 noon to 3.30pm

Featuring Maths, Physics and Neuroscience -How do you build the tallest sandcastle? How do you survive a sinking quick sand? Why do particles expand when you compress them? Can you build a bridge without nails or glue? Can you make a curved tower out of straight sticks? Can you design a building that would melt a car? Find out how maths and physics are key to all these questions and how they influence the world around us. Also find out if your brain is like Facebook!

Newtongrange Library

Families  
DROPP IN FREE



## Scientists at Work Photographic Exhibition Event

Sunday 16<sup>th</sup> 1pm - 4pm

An exhibition of photographs showing Centre for Ecology & Hydrology scientists at work in the lab, workshops and fieldsites across the UK and around the world. Come on the 16th and meet some CEH scientists and ask them about their work.

Exhibition throughout the festival.

West Street Art Centre

All Welcome  
DROPP IN FREE

## MAYFIELD

## Saturday 22<sup>nd</sup> Science Gala Day

10am to 3pm

The ever popular science gala day returns, inviting you to a world of science fun throughout the day. Come and see the 3D Printer! Play with molecules in our virtual reality room. Find out if your brain is like Facebook. And of course, make and launch a rocket.

Mayfield Library

Families  
DROPP IN FREE



### SENSATIONAL SOUNDS WORKSHOP



Love making music, science and samba? Then this music instrument making workshop is for you. Make castanets, shakers and drums and find out about the science of sound!

**Mon 17<sup>th</sup>**  
2.30pm to 4pm  
Family - under 8s with an adult  
Mayfield Library  
BOOK ONLINE & @ VENUE FREE

### GET YOUR PULSES RACING



Ready...set...pedal! Hop on the awesome custom made smoothy bike, make a delicious smoothy and find out what's happening to your pulse as you do!

**Tue 11<sup>th</sup>**  
5.30pm to 7pm  
Family - under 8s with an adult  
Mayfield Library  
DROPP IN FREE

## GOREBRIDGE

### ECOLOGICAL WALK - GORE GLEN



**Gore Glen Walk:** unravel the story of our valley woodlands by reading the trees. Morning led by Ian Edwards from the Royal Botanical Gardens.

**Sat 15<sup>th</sup>**  
10am to 12pm  
Families  
Gorebridge Library  
BOOK ONLINE & @ VENUE FREE

### GOREBRIDGE - THE GUNPOWER YEARS..



Speaker, Joan Simpson combines her knowledge of history with the scientific aspects of the mills and the accidents and explosions which occurred.

**Tue 18<sup>th</sup>**  
7pm to 8pm  
14+  
Gorebridge Library  
JUST TURN UP OR BOOK AT VENUE FREE

### FUN SCIENCE EXPERIMENTS



Join in with an afternoon of cool 'hands on' experiments. We will be exploring bubbles, balloons, water and rainbows!

**Thu 20<sup>th</sup>**  
3pm to 4.30pm  
5-12yrs  
Gorebridge Library  
DROPP IN FREE

**Pg Sat 8<sup>th</sup>**

9 10am - 12.30pm	Video Game Design	Gorebridge Library
9 10am - 12.30pm	Music Producer	Penicuik Library
5 12pm - 4pm	Easter Bush Open Day	Roslin Institute
2 1pm - 4pm	Discover Geocache	Vogrie Country Park

**Sun 9<sup>th</sup>**

9 1pm - 4pm	Pond Dipping and Minibeast Hunting	Springfield Mill, Polton
7 3pm - 4pm	Life through a lens	Beeslack High School
7 7pm - 10pm	The Martian	Penicuik Town hall
3 12pm - 3pm	Dogday: The science behind the wag	Vogrie Country Park

**Mon 10<sup>th</sup>**

4 7.30pm - 9pm	Talk - Wilsontown Ironworks	Rosslyn Chapel
6 10am - 9pm	Dolly Memories - 20 years	IKEA, Loanhead

**Tue 11<sup>th</sup>**

9 10am - 4pm	River Esk weir walk	Springfield Mill, Polton
13 5.30pm - 7pm	Get your Pulses Racing	Mayfield Library
12 7pm - 9pm	Reading into Forensic Science	Newtongrange Library
4 6pm - 8.30pm	Roslin Glen Bat Walk	Roslin Glen car park
6 10am - 9pm	Dolly Memories - 20 years	IKEA, Loanhead

**Wed 12<sup>th</sup>**

6 10am - 9pm	Dolly Memories - 20 years	IKEA, Loanhead
12 7pm - 9pm	Beauty Lab: Inside and Out	Newtongrange Library

**Thu 13<sup>th</sup>**

11 7pm - 9pm	Phantasmagoria - fantastic images!	Dalkeith Corn Exchange
15 4pm - 5pm	Rocket Build	Lasswade Library
8 3pm - 5pm	Supercomputers for big (and little) problems	Lasswade Library

4 7pm - 10pm	Pub Quiz	The Original Inn, Roslin
2 12pm - 2pm	Open book and soup!	Vogrie House
6 10am - 9pm	Dolly Memories - 20 years	IKEA, Loanhead

**Fri 14<sup>th</sup>**

11 5pm - 8pm	Park In the Dark	Dalkeith Kings Park
15 2pm - 4pm	Midlothian Rocket Blast!	Danderhall Library
6 3pm - 4pm	Coding Club Taster Session	Loanhead Library
6 7pm - 9pm	Stewart Brewery Tour	Stewart Brewing
9 2pm - 4.30pm	Lego Robotics	Mayfield Library
14 2pm - 4.30pm	Film - 'Inside out' with brainy fun activities!	Roslin British Legion
6 10am - 9pm	Dolly Memories - 20 years	IKEA, Loanhead

**Sat 15<sup>th</sup>**

11 11am - 12pm	Coding Club Taster Session	Dalkeith Library
13 10am - 12pm	Ecological Walk - Gore Glen	Gorebridge Library
8 10.30am - 3.30pm	Science Alive Gala Day	Lasswade Centre
8 10am - 11am	Science Craft Fun	Lasswade Library
15 1pm - 3pm	Rocket Launch Science Alive	Lasswade Centre
7 10am - 12pm	Build it Scotland!	Penicuik Library

**Sun 16<sup>th</sup>**

3 11am - 3pm	Volcano and Dino Day	Glencorse Centre
12 1pm - 4pm	Scientists at Work Photographic Exhibition	West Street Art Centre
7 1pm - 3pm	Build it Scotland!	Penicuik Library

**Pg Mon 17<sup>th</sup>**

10 12pm - 4pm	Mini Science Gala Day	Danderhall Library
15 2pm - 3.30pm	Midlothian Rocket Blast!	Gorebridge Library
6 9.45am - 10.20am	All things Glowing -early birds	IKEA, Loanhead
6 10.30,11.00,11.30	All things Glowing	IKEA, Loanhead
6 2pm - 4pm	Life through a lens	Loanhead Library
6 2pm - 3pm	The Chemistry Show	IKEA, Loanhead
13 2.30pm - 4pm	Sensational Sounds Workshop	Mayfield Library
7 3pm - 8pm	Escape the cell	Penicuik Library
2 1pm - 4pm	Campfire Cooking and Kelly Kettle	Vogrie Country Park
4 11am - 3pm	Medieval construction and lego!	Rosslyn Chapel

**Tue 18<sup>th</sup>**

9 3pm - 8pm	Solve Puzzles. Invent Medicine.	Penicuik Librar
13 7pm - 8pm	Gorebridge - The gunpower years..	Gorebridge Library

6 9.45am - 10.20am	All things Glowing additional support needs	IKEA, Loanhead
6 10.30,11.00,11.30	All things Glowing	IKEA, Loanhead
6 3.30pm - 4.30pm	POPI Bubble Science Show	Loanhead Library
7 1pm - 3pm	Build a Biscuit City	Penicuik Library
4 11am - 3pm	Medieval construction and lego!	Rosslyn Chapel

**Wed 19<sup>th</sup>**

11 10.30am - 12pm	Science of Smoothies	Dalkeith Library
6 2pm - 3pm	The Chemistry Show	IKEA, Loanhead
12 12pm - 3.30pm	Mini Science Gala Day	Netwongrange Library
4 11am - 12.30pm	Meet the Cows	Langhill Dairy Farm
4 7.30pm - 9pm	Honey bees - past, present and future	Rosslyn Chapel
4 11am - 3pm	Medieval construction and lego!	Rosslyn Chapel

**Thu 20<sup>th</sup>**

10 11am - 4pm	The SCI-FUN Roadshow	Dalkeith Library
10 10am - 11am	SCI-FUN session for ASD	Dalkeith Library
13 3pm - 4.30pm	Fun Science Experiments	Gorebridge Library
6 6.30pm - 8.30pm	Untangling Resilience to depression	IKEA, Loanhead
9 2pm - 4.30pm	App Developer	Loanhead Library
7 2pm - 3pm	How biology depends on models.	Penicuik Town hall
5 6pm - 7.30pm	Stargazing with Cosmos - Early Session	Rosewell Pavillion
5 7.45pm - 9.15pm	Stargazing with Cosmos - Late Session	Rosewell Pavillion
4 11am - 3pm	Medieval construction and lego!	Rosslyn Chapel

**Fri 21<sup>st</sup>**

10 6.30pm - 9pm	The Martian at Danderhall	Danderhall Library
10 2pm - 4pm	Chemical Transformations	Danderhall Library
6 3pm - 4pm	Coding Club Taster Session	Loanhead Library
8 2pm - 3pm	Kitchen Sink Science	Lasswade Library
12 2pm - 3.30pm	Build a Biscuit City	Newtongrange Library
7 6.30pm - 8.30pm	Go Batty at the Penicuik Estate	Penicuik House Estate
7 2pm - 3.30pm	Build a Lego Bridge	Penicuik Library
7 10am - 12pm	Build a Rocket	Penicuik Library
4 7.30pm - 9pm	Rosslyn Remains - Archeology at the Chapel	Rosslyn Chapel
4 11am - 3pm	Medieval construction and lego!	Rosslyn Chapel

**Sat 22<sup>nd</sup>**

13 10am - 3pm	Science Gala Day	Mayfield Library
7 2pm - 3.30pm	Build a rocket	Rockets Mayfield (gala)
7 10am - 11.30pm	Rocket Launch	Penicuik Park
2 11am - 3.30pm	Science on the Wild Side at Vorgie	Vogrie Country Park

**Various**

5 Various Dates	Science fun drop in	Roslin Library
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All welcome



# Midlothian Rocket Blast Competition



Rocket sessions: Come and design and build a rocket that will go to the moon! \*Or as far as possible\* Launch at one of the sites below.

## BUILD

Date	Build Site	Time
3rd	Dalkeith Library	3.30pm-5pm
13th	Lasswade Library	4pm - 5pm
14th	Danderhall Library	2pm - 3.30pm
15th	Lasswade Centre	10.30am- 1pm
17th	Gorebridge Library	2pm - 3pm
21st	Penicuik library	10am - 12pm
22nd	Mayfield Library	10am - 2pm

## LAUNCH

Date	Launch Site	Time
10th	Kingspark Dalkeith	3.30pm-5pm
11th	Roslin Park	3.30pm-5pm
15th	Lasswade Centre	1pm- 3pm
17th	Danderhall Library	1pm - 3pm
22nd	Penicuik library	11am - 12.30pm
22nd	Mayfield Library	2pm - 3.30pm

Prizes for design and distance covered. You can build your rocket at home too!

See website for rocket details.

# Build A Bridge Competition

To celebrate Scotland's year of Innovation, Design and Architecture we invite you to build a bridge... from paper! Load it with 2 pences to show how strong it is. Build it yourself, with your family, at School, or with any group you like, and enter a photograph via your library, or email us. We will invite the those which look the strongest to a load testing final special event! Full instructions available to download from our website, or at your local library.

**FREE**  
0-4 years , 5-8 years, 9-12 years and Group Entry

Hand in to your local library, or email entries to [danderhall.library@midlothian.gov.uk](mailto:danderhall.library@midlothian.gov.uk) by Saturday the 17<sup>th</sup>. Don't forget to include your name, age and contact details.