



TECHFEST

Aberdeen and North-East Scotland's
Festival of Science, Technology,
Engineering & Mathematics
www.techfest.org.uk/festival



2025 ACTIVITY WEEKEND PROGRAMME

Saturday 31 May – Sunday 1 June

Robert Gordon University, Garthdee Campus, AB10 7GJ



JOINT PRINCIPAL SPONSORS



WWW.TECHFEST.ORG.UK

Scottish Charity No. SC010349

WELCOME TO TECHFEST ACTIVITY WEEKEND 2025



bp and Shell are proud, as Joint Principal Sponsors, to welcome you to TechFest, an annual celebration of the wonders of Science, Technology, Engineering and Mathematics (STEM).

We are delighted to support the public programme of fascinating events, which allow audiences to explore STEM. The varied programme encourages visitors to get involved in activities throughout the North-east of Scotland through the exciting variety of shows, presentations and workshops on offer.

By supporting TechFest we aim to provide both enjoyment for the public and inspiration for the next generation of scientists and engineers. We look forward to another successful festival.

Doris Reiter
Senior Vice President
bp North Sea

Simon Roddy
Senior Vice-President Upstream
Shell U.K. Limited

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HERE'S WHAT YOU NEED TO KNOW

Venue Opening Times



The Sir Ian Wood Building, Robert Gordon University, Garthdee Campus, Aberdeen AB10 7GJ
Saturday 1 & Sunday 2 June 2024, 09.30 – 16.00 each day

Admission Costs

With over 20 hands-on workshops, shows and demonstrations, the TechFest Activity Weekend continues to provide fun, exciting and inspiring activities for all ages. No need to pre-book as this year we are '**In for a Penny, In for a Pound**' adults pay £1 and children pay 1p; or donations! Cash only.

Picnics and Packed Lunches

Although there are catering providers on site please feel free to bring your own food and soft drinks.

Buggies and Pushchairs

We have provided a Buggy Park at the Activity Weekend. Please be aware that it is not staffed and items are left at the owner's risk.

Baby Change Area

There will be a baby change area provided at the Activity Weekend.

First Aid

If you require First Aid Treatment – please visit Reception



Quiet Space /Time

If you feel that you would prefer to attend TechFest when it is quieter then please be aware that Saturday mornings tend to be less busy than later on in the day or on Sunday. Quiet spaces will be available at all times for anyone who needs time out. Just ask a member of staff and they will point them out.'

AT A GLANCE



energy & technology zone

Build a Lego Wind Turbine
Net Zero Challenge
Energising the Transition
Smart Home Solutions

other activities

The Wonderful Rainforest
Sustainable Superstars
K'Nex Engineering
Be a chemist for a day!
Rainbow strings and electroplating
Going on a Plant Munch
Build a boat
Nature Detectives
Discovering the Coast
Chemical Engineering Design - Construct a
Mechanical Valve
Active Earth! Earthquakes, Water, Rocks, and Fossils
Exploring the Rocky Shore
Electronics and Snap Circuits
Amazing Aberdeen
Forces of Nature

biology / medical zone

Clinical Skills at Foresterhill with Teddy Bears Hospital and AUPS
FitLab Exhibits
Play the Body Game

space zone

! The TechFest Dome
Apollo 7
Racing Rockets

maths zone

Maths Week Scotland
Wild About Maths
Maths Around the World

show zone

Explosive Foods
How to Build A Rocket

under 5s zone

ToddleFest
K'Nex Dinosaurs



BOOK
ON THE DAY!

TECHFEST

Promoting Science, Technology, Engineering and Mathematics

Scottish Charity No SC010349

The CREST Regional Support Organisation for Scotland is TechFest.

For advice about undertaking CREST Awards in Scotland, please contact Kirsty Cranna by email at kirstycranna@techfest.org.uk.

Take part in activities at our Activity Weekend and collect your award stickers!



SUPERSTAR



PASSPORT

Name _____

Collect stickers for your passport after completing each activity!

Start
your journey here

1

Great job!

4

5

Only two more to go!

7

Nearly there!

6

8

2

3

Well done
you have completed your
CREST SuperStar Award!



ENERGY & TECHNOLOGY ZONE

BUILD A LEGO WIND TURBINE



Using Lego robotics technology participants will build and program an amazing robotic model of a wind turbine. Builders will be able to program their model to switch on only when the wind is strong enough. Perhaps even add adjustable turbine's blades that can control how much energy the blades can extract.

This drop-in workshop is great fun and ideal for nurturing and enhancing Science, Technology Engineering and Maths (STEM) skills.

PRESENTED BY: JOHN MCGILL OF COMPUTEXPLORERS

SPONSORED BY: bp

NET ZERO CHALLENGE



Come aboard the energy skills outreach vehicle and take part in the Net Zero Challenge!

Try your hand at activities relating to carbon capture, solar energy, and wind energy, and learn more about the types of jobs you could do as the future energy workforce.

PRESENTED BY: NESCoI

SPONSORED BY: Shell UK

ENERGISING THE TRANSITION

Look around you. Are the lights on? Is your computer running? Or the TV playing? All of these things require energy! We use energy every day to power our world.

Come and delve into the exciting future of energy and take part in hands-on, interactive experiments to learn about different energy sources, and the trade-offs associated with each, it explains the fundamentals of wind energy and introduces the concept that energy cannot be created or destroyed, only changed from one form to another. Which energy source will you choose to power your future?

PRESENTED BY: TechFest

SPONSORED AND SUPPORTED BY:



CNOOC STROMAR



An integrated energy partnership

SMART HOME SOLUTIONS

Join the TL Tech team to learn about the different ways that smart home technologies and voice assistants can help in our everyday lives and how they can support people with disabilities or people who are elderly.

PRESENTED BY: TL Tech



UNDER 5s ZONE

TODDLEFEST

When they're little, playing is just another way of learning. Let your under 5's discover the fun of playing in our soft play area, an ideal place for TechFest's youngest visitors.



K'NEX DINOSAURS

An introduction to the fascinating world of engineering design. Kid K'NEX allows younger children to develop their construction skills and build up their creative confidence by producing their own unique model Dinosaur.

PRESENTED BY: TechFest

MATHS ZONE

MATHS WEEK SCOTLAND



Maths Week Scotland (22 September – 28 September 2025)

Join TechFest as we celebrate the upcoming Maths Week Scotland by exploring a series of interactive puzzles and challenges. Visit Maths Week Scotland at www.mathsweek.scot or follow us @mathsweekscot on Twitter.

WILD ABOUT MATHS



Take a walk on the wild side with TechFest as you undertake puzzles, challenges and problem solving activities inspired by the natural world. In these hands-on maths activities you can work through a series of puzzles designed to challenge your idea of how much fun maths can be.

PRESENTED BY: TechFest

SPONSORED BY: Equinor



MATHS AROUND THE WORLD



A fun, hands-on maths workshop designed to challenge and build confidence. A variety of puzzles, representing different countries, are set out. Help and encouragement is at hand and solutions checked.

PRESENTED BY: TechFest

SPONSORED BY: Equinor



SHOW ZONE

EXPLOSIVE FOODS



Discover the Power Packed in Your Plate and the Incredible Journey It Takes Through Your Body!

PRESENTED BY: TechFest

SUPPORTED BY: The Royal Institution



HOW TO BUILD A ROCKET



Get ready for an awesome science show where we build and launch rockets! You'll see how we put together the rocket, fill it with fuel, and watch it blast off. It's going to be a super fun adventure full of cool science and explosions!

PRESENTED BY: TechFest

SUPPORTED BY: The Royal Institution



BIOLOGY / MEDICAL ZONE

CLINICAL SKILLS AT FORESTERHILL WITH TEDDY BEARS HOSPITAL AND AUPS



Don't forget to bring your own teddy!!

Come along and join the Medical School Clinical Skills Teaching Team and find out how we train healthcare professionals of the future using the latest state of the art technology with our family of Human Patient Simulators and 360 degree cameras.

As always for our younger clinical skills trainees don't forget to bring your teddy bear or soft toy to the Teddy Bear's Hospital for a check-up. You can even watch and assist the doctors in the operating theatre as they help a teddy bear get better.

PRESENTED BY: THE UNIVERSITY OF ABERDEEN – MEDICAL SCHOOL CLINICAL SKILLS CENTRE AND TEDDY BEAR HOSPITAL AND RGU SCHOOL OF HEALTH



FITLAB EXHIBITS

Get hands on and explore endurance, strength, agility, speed and coordination through a range of zoned exhibits.



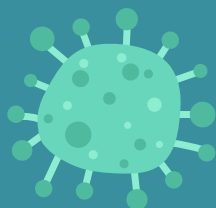
PRESENTED BY:
GLASGOW SCIENCE
CENTRE

PLAY THE BODY GAME



The Body Game aims to demystify and provide clarity on how biochemical processes occur in the body. The game tasks players working in small groups to explore the human body through missions and challenges linked to key biochemical processes. At the same time, players must deal with external factors based on real-life medical scenarios such as disease and other human biochemistry and physiology modifiers. Therefore, they gain an understanding of the processes covered in the game, all of which link to human metabolism.

PRESENTED BY: INSTITUTE OF EDUCATION IN HEALTHCARE AND MEDICAL SCIENCES, UNIVERSITY OF ABERDEEN



SPACE ZONE

THE TECHFEST DOME **BOOK ON THE DAY!**

Enjoy a visit to the unique environment of the TechFest Dome. Find out why we have day and night; wonder at a sky full of stars and discover the constellations.

Not suitable for under 5 years.

PRESENTED BY: TechFest



APOLLO 7

Ensuring astronaut safety is one of the biggest challenges faced by NASA engineers. Work as a team to apply physics and engineering principles in a dynamic and creative way to bring an astronaut safely back to Earth.

PRESENTED BY: TechFest



RACING ROCKETS

The sky's the limit when you put your imagination to the test to design a space rocket that is out of this world, think about rocket design to build a rocket that will travel as high as possible. Learn about the science of flight and the concepts of thrust and drag, lift and gravity as we lift up, up and away!

PRESENTED BY: TechFest



ACTIVITY WEEKEND FEEDBACK FORM



OTHER ACTIVITIES

BUILD A BOAT

Using naval architecture to discover the forces of buoyancy and gravity, investigate the principles of boat design and understand that boats are built with specific purposes in mind.

Carry out experiments with boats in our test pool and dip into the fascinating history of maritime engineering in Aberdeen.

PRESENTED BY: TechFest

RAINBOW STRINGS AND ELECTROPLATING

Come along to create colourful strings from alginate derived from seaweed and make copper shapes and convert these into zinc shapes to learn how materials can be changed into something more valuable through chemical reactions.

PRESENTED AND SUPPORTED BY: ROBERT GORDON UNIVERSITY SCHOOL OF PHARMACY AND LIFE SCIENCES



GOING ON A PLANT MUNCH

Plants are an important part of our diet. Although we eat a wide range of plants, we don't eat every part of every plant, come and explore the parts and types of plants we do eat and where they come from.

PRESENTED BY: TechFest



SUSTAINABLE SUPERSTARS



Explore sustainable living with fun, interactive activities the whole family can enjoy! Learn simple skills at our Make-Do-and-Mend station, test out your food waste knowledge and play the "How Bad are Bananas?" carbon footprint game.

PRESENTED BY: Aberdeen Science Centre

THE WONDERFUL RAINFOREST

Rainforests only cover 2 percent of our earth's surface, yet house over 50 percent of all living creatures and plant life on our planet.



Using real life animal demonstrations, we will travel to different countries meeting some amazing animals that live in rainforests around the world. Get up close to real rainforest animals in this workshop. You'll learn what makes our rainforests so important, not only to our planet, but to the animals who call the rainforest home.

PRESENTED BY: The Critter Keeper

DISCOVERING THE COAST



A look at the East Grampian Coast, its wildlife and the threats that they are facing including marine litter and plastics.

PRESENTED BY: East Grampian Coastal Partnership

BE A CHEMIST FOR A DAY!



AVAILABLE ON SATURDAY

Discover chemical reactions inspired by culinary creations or everyday substances from around the home, with hands on experiments in physics and chemistry. From acids and alkalis to fizzies and bangs!

PRESENTED BY: UoA Marine Biodiscovery Centre

NATURE DETECTIVES



Meet the Duthie Park Rangers and become nature detectives! Can you identify the trees in your local park? Do you know which animals walk on their nails? Come and have a look at some animal sings, test your tree ID skills, and learn why tracking is important!

PRESENTED BY: Duthie Park Rangers

OTHER ACTIVITIES

EXPLORING THE ROCKY SHORE



Join Macduff Marine Aquarium for a fun interactive session looking at the critters that inhabit our local rocky shores. Get hands on with hardy sea creatures as you discover how these animals cope with life on land when they are left behind by the tides.

@macduffmarineaquarium

PRESENTED BY: Macduff Marine Aquarium

K'NEX ENGINEERING

Shine a light of creativity to tackle an engineering challenge. Investigate problems associated with the construction of buildings. Work together and use your engineering skills to develop a prototype. Can you build higher, bigger, stronger?

PRESENTED BY: TechFest

SPONSORED BY: Net Zero Technology Centre



CHEMICAL ENGINEERING DESIGN IChemE

Join the IChemE team to construct and test your own mechanical valve. Learn about the chemical engineering design that goes into controlling the flow in a pipe and why valves are important.

PRESENTED BY: the Institution of Chemical Engineers (IChemE)

FORCES OF NATURE VATTENFALL

Join us to look at different types of weather and how they are associated with the Earth's climate zones. Find out about Greenhouse Gases and the effect they have on our climate.

PRESENTED BY: TechFest

SPONSORED BY: Vattenfall

ELECTRONICS AND SNAP CIRCUITS



With a range of hands-on activities, crafts to take home and stunning demonstrations - including the chance to make your own electrical circuits and see how steel wool burns - learn all about electricity, batteries and circuits.

PRESENTED BY: Dundee Science Centre

ACTIVE EARTH! EARTHQUAKES, WATER, ROCKS, AND FOSSILS



Explore the dynamic forces that shape our planet! Join the Geology, Geophysics, and Geography teams from the University of Aberdeen to discover why predicting earthquakes is not easy—record your own (micro-)earthquakes and learn where and why they happen. Get hands-on with our Augmented Reality Sandbox and see how water flows across landscapes, carves valleys, and fills rivers and lakes. Draw your favourite rocks and fossils for our geology gallery and imagine what the Earth was like when they formed millions of years ago!

PRESENTED BY: academics and students from the School of Geosciences, University of Aberdeen

AMAZING ABERDEEN

Have a look at the scientists and engineers who have made Aberdeen the incredible city it is. With focus on Charles Abercrombie and the work he did on building the Union Bridge and developing Union Street.

PRESENTED BY: TechFest

UPCOMING EVENTS

Save the date!



Aberdeen Science Festival

Powered by **TECHFEST**

20 - 27 September, 2025





THE **CREST AWARDS** SCHEME IS THE BRITISH SCIENCE ASSOCIATION'S FLAGSHIP PROGRAMME FOR YOUNG PEOPLE, PROVIDING SCIENCE ENRICHMENT ACTIVITIES TO INSPIRE AND ENGAGE 5–19 YEAR OLDS.

It is the only nationally recognised accreditation scheme for project work in science, technology, engineering and mathematics (STEM) subjects.

In addition to giving young people the opportunity to undertake hands-on science, CREST Awards are designed to help develop skills that are transferrable to other subjects, further education and future employment.

To find out more about CREST Awards and to see how you can get involved visit the TechFest website: www.techfest.org.uk/educationcrest or email: kirstycranna@techfest.org.uk

TECHFEST
digital

TechFest is your Regional CREST Support Organisation for Scotland.

TechFest.org.uk

Follow the link below to find out more about CREST, and how to register for Awards;

www.crestawards.org

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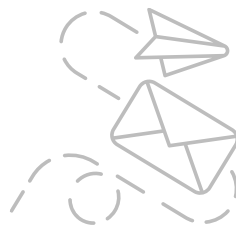
THANK YOU



TO ALL OF OUR CONTRIBUTORS WHO HELPED MAKE THE TECHFEST SCHOOLS
SCIENCE FESTIVAL AND FAMILY ACTIVITY WEEKEND POSSIBLE

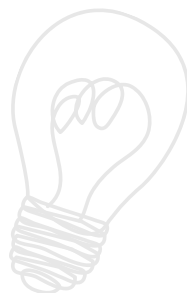


Get in touch
with us...



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