



**Dynamic Earth**

Dive into the deep with Dynamic Earth as we explore our oceans. Discover the role Scotland played in the first ever global marine research expedition, meet the creatures of the deep, try your hand at drawing your own deep-sea fish, and find out about the problems our oceans face and what we can do about them!



**Highlife Library**

Lego Build and Technobot Showcase: Drop in & open space for constructional challenge using Lego pieces. Everyone is welcome to join and build their own Lego objects to express their creativity and constructive skills.

We also welcome everyone to try Technobots kits and coding games.



**Army STEM**

STEM skills are vital when the British Army deploys around the world and are never more crucial than when disaster strikes! In this activity, families will join the Army's Engineers, Medics and Logisticians in deploying to a remote part of the world which has been hit by a destructive earthquake. Learning how to programme and operate their

SPHERO BOLT robots, families will use their robots to navigate an obstacle laden route in order to achieve their mission.



**Jacobs**

Find out what it takes to be an engineer. Try your hand out at constructing a bridge from Kapla planks or the MTA learning kit. Ask our experts questions on all things engineering whilst having a fantastic time fabricating and assembling your creations.



**USE THE STARS TO HELP MOANA FIND HER WAY**

For thousands of years, humans have used the night sky to find their way home. In the Disney film, Moana, it is shown how the Polynesian navigators follow the stars in order to navigate the world's greatest Ocean. In this activity, participants will learn some of the basics of celestial navigation by helping Moana find her way, her time, and her position. A Polynesian star compass will be used to find direction, a star clock to find the local time and longitude, and the pole star to determine latitude. Participants will follow a set of steps in order to help Moana and to determine her position on a globe. The activity is suitable for secondary school pupils and adults.



**The T-Exchange**

Learn how to code with the free online coding editor, Scratch and BBC Microbits. Develop your computational thinking skills via algorithms, cryptography and logic games. Activities suitable for primary age students and older. There will also be a 3d printer in action and a display of 3d printed items.



**Powerhouse**

What does it take to make electricity and how does the light switch go on? Come and try out our snap circuits to investigate the difference between in series and in parallel circuits. Just how much power does it take to set the fan flying?



**Inverness Science Festival Family Day 2022**  
**Inverness Leisure, Bught Lane, noon - 4pm**



**Bell Tower Power**

- Wind Turbine Blade Design Activity – Using a mini wind turbine and different blade designs, measure the energy produced, power a buzzer or power a light. The wind source will be a hairdryer, identify what effect wind direction has on your wind turbine.
- Hand Crank Electricity Activity – Measure the electricity produced from a hand crank, use the crank to power a buzzer or light.
- Build a Pinwheel – using coloured card and wooden doweling create a colourful pinwheel (Wind turbine!) to take home.



**RAF**

Discover the science and engineering behind the RAF's 21<sup>st</sup> Century Air and Space power. Perfect the perfect paper aircraft, build and test rockets to see if you can reach the sky (or at least the ceiling). Also take a look at our mechanical computers which can help develop coding skills for the next generation.



**University of the Highlands and Island STEM Team**

A range of hands-on activities that covers the world of STEM. Try making a dinosaur finger puppet, using a smart phone microscope, follow some DNA code or create your own badge. Of course, we have the infamous 'banana piano' available for those of you with a musical inclination.



**Whale and Dolphin Conservation**

Join WDC and play our fun games to find out more about how whales and dolphins feed and how whales can help save the world!



**RZSS**

How do animals survive in the cold environments of the world?

Have you ever wondered what adaptations a polar bear have to survive the arctic winters, why do penguins feet not freeze? Then come and chat to the Royal Zoological Society of Scotland staff and learn more about these amazing animals. Have a go at our animal adaptation experiments.



**Highlife Highland Conservation Services**

As part of the Inverness Science Festival the High Life Highland Conservation Service will be showing paper samples through a microscope, touch and feel tests with paper samples, showing effects of light on paper and a couple of examples of conservation treatments to discuss.



**Keir Construction**

Heat conservation. Why do we use insulation when building, what is it like and how do different types work? Discover how heat can escape from an un-insulated Lego house using our Infra-red Camera. Can you reduce this heat loss with what the using the materials we have on offer? Remember you still need a door to get in!

**Science Skills Academy**

**Rocket Science**

Come visit the Science Skills Academy to learn about the real-life Spaceport being built on in Sutherland and the kinds of rockets that will be launched there. Then make your own launch vehicle (a.k.a. rocket) and launch it with a bang!



**Aberdeen Science Centre**

Range of workshops including dash bots, engineering and bubbles! Along with some 'Science on the spot' activities