# **Quiet Space**

A quieter, family friendly place to engage with interactive science activities.

# Festival Competition: Maths quiz

Play the Lowest Positive Integer (LUPI) game. Scan the competition QR code at the Mathematics activity and guess the lowest number greater than zero that no one else has guessed.

# Science Discovery Trail

Grab a trail card to win a prize! Complete any five activities at FOBI and get them stamped by the activity provider. Drop your trail card back to our friendly team as you leave.

# Food and Drink

Van Demons Café Donut 7 (Saturday only)

# First Aid



First aid support, proudly provided by Promed, is available at the far end of the venue.

# FESTIVAL OF BRIGHT IDEAS

Science for the curious and creative

A NATIONAL SCIENCE WEEK EVENT

# Session times

Green Wristband 9–11.30am Purple Wristband 11.30am–2pm Yellow Wristband 2-4.30pm

# Special thanks to our festival sponsors

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# Activities

Architecture and Design, University of Tasmania Experience digitally assisted fabrication and build unique structures from pre-fabricated timber components.

# Australian Christian College

- Launceston Distance Education

Learn how acids and bases work. Create a magic drawing that erases brush strokes and changes paint colours.

# Big Fish Game

Play the Big Fish Game and test your fishing strategy while exploring ocean ecosystems, sustainability, real-world marine challenges.

#### **Bob Brown Foundation**

Become a citizen scientist! Explore data collection and learn how to use iNaturalist to record ecological observations and data.

Chemistry, University of Tasmania and Royal Australian Chemical Institute Investigate what is the matter. Use chemical fingerprinting through infrared light to find out which white powders match which common drug.

Children's University, University of Tasmania Get curious – create, experiment, and learn something new!

### City of Hobart - Drones

Experience drone technology in action with flight simulators, hands-on tech, and artificial intelligence.

City of Hobart – Nature's Network Detectives Beneath every bushland reserve lies a hidden fungal network connecting plants. Discover how these microscopic threads help ecosystems and biodiversity.

#### **Devil Robotics**

Interact with robots including remote-controlled FIRST Tech Challenge robots and LEGO SPIKE Prime robots.

Earth Sciences, University of Tasmania
Journey through Tasmania's geological
wonderland. Examine rocks under the microscope
and learn to identify them in your own backyard.

### Elizabeth College, DECYP\*

Explore how nutrients and pH affect our daily lives. Test food for nutrients including acidity; make a natural indicator and test the pH of household substances.

Engineering, University of Tasmania Test your creative thinking and engineering design skills.

### **Engineers Australia**

Tackle engineering challenges like gravity mazes and circuits. Discover how drones are used in real-world surveying applications.

### Fisheries Tasmania

Race to restore Tasmania's kelp forests before sea urchins take over! Discover how climate change affects marine environments and what drives reef recovery.

Forest Education Foundation and Forest Practices Authority

Explore the wonders of the forest floor. Observe, collect, and classify what lies underfoot.

### **Future You Australia**

STEM is everywhere – from ticket scanners at footy games to exhibits at zoos. Explore and uncover the science shaping everyday life.

# Geography, Planning, and Spatial Sciences, University of Tasmania

Fly mini drones, explore virtual reality and see how information about our environment can help us tackle complex challenges.

#### GreenSTEM Education

Discover the excitement of electric vehicle racing, robotics, game design, engineering, and science innovation.

# **Hobart Hackerspace**

Explore ways to control lights. Create circuits, program microcontrollers, and more!

Hobart Hurricanes and Exercise Science, University of Tasmania

Discover the science behind sport. Meet the experts who help our sports stars train, recover and thrive.

# Hydro Tasmania

Experiment with magnetism and forces and discover how magnets and copper transform kinetic energy into electrical energy.

# Inspiring Australia

Draw or write about your favourite Tasmanian species.

# Institute for Marine and Antarctic Studies, University of Tasmania

Discover how fisheries scientists identify species, age fish, and track populations using underwater videos.

### **Invasive Species Council**

Uncover the science of feral fauna and help protect Tasmania's wild places. Explore the impact of feral deer and cats and test your ecological detective skills.

### Mathematics, University of Tasmania

Math is everywhere – from city design to spotting fiction. Discover how real-world problems can be solved by translating them into the language of mathematics.

Natural Resources and Environment Tasmania, Rethink Waste, and Plasticus Tasmania Explore the impact of plastic and learn smart ways to avoid, reduce, reuse, and recycle plastics.

#### Nature. Be in it.

Whittle a measuring stick and explore nature craft, safe tool use, and maths – then measure yourself, natural objects, and things around your home!

### Physics, University of Tasmania

Decode the secrets of the universe with physics. Explore electromagnetic and gravitational forces, and how light, sound, and motion help us understand the world around us.

Plant Science, University of Tasmania

Find out how plants and animals adapt to extreme environmental challenges and examine plant tissue under a portable microscope attached to your phone.

### Sand science - Sculptor Peter Bignell

See a science-themed sand sculpture take shape, then sculpt your own mini sand creation – just add water and imagination!

#### Science Teachers Association of Tasmania

See the best entries from the annual Tasmanian Science Talent Search and indulge your curiosity with a range of interactive science activities.

# Sustainability Learning Centre and Hobart College, DECYP\*

Discover the hidden language of the universe. Digital and natural codes – such as binary communication, animal sounds, and cellular structures – fundamentally shape the universe and life.

#### Tasmania Police

Explore forensic science and learn how prints, marks, DNA, and biological evidence help solve crime scenes.

# Tasmanian Institute of Agriculture, University of Tasmania

Meet the tiny heroes behind your food! Discover how insects and bugs support food production as pollinators and pest control – then plant your own pollinator to bring them into your garden!

### **Tasmanian Museum and Art Gallery**

Examine Tasmanian plants and animals to uncover stunning mathematical patterns – fractals, spirals, symmetry, and shapes – that inspire sustainable solutions to environmental challenges.

#### **TasNetworks**

Discover how renewable energy is transmitted across Tasmania and step into a line worker's world at the elevated platform truck.

# Woodbridge Marine Discovery Centre, DECYP\*

Touch live marine animals, learn about pests and dangerous species, and discover how to care for Tasmania's beaches.

Young Tassie Scientists, University of Tasmania Explore hands-on action-packed activities with early-career scientists. Be inspired by their passion for science as you investigate the world around you.

<sup>\*</sup>Department for Education, Children and Young People