

What's on at **Street Science!**

In 2017 South Bank Parklands will again turn into a science playground with dozens of free immersive events for families to enjoy. Come along and participate in hands-on activities and explore the science behind robots, fossils, bubbles, slime, spiders, solar energy, drones, augmented reality, experiments and even explosions!

Scient'rrific

Presented by the BHP Billiton Foundation

Come and immerse yourself in our Scient'rrific space with mind blowing hands-on activities and see how science and maths really are the building blocks of our everyday lives.

Science on the GO!

Presented by Griffith University

Griffith University presents Science-on-the-GO! Come along and participate in hands-on science exhibits, experiments, demonstrations, and games showcasing STEM-tastic activities. Watch as we show you some of the most incredible, cutting-edge ideas in science – you'll find it hard to believe they're not magic.

Connect with Water

Presented by Brisbane City Council

Explore your connection with water through interactive activities such as water quality testing and comparison and creek catchment games. Get a close look at water macro invertebrates, play with an interactive model of Brisbane's creek catchments and discover a

new world in Seqwater's virtual reality sandbox!

You can also find your house or school on waterway, flooding and creek catchment maps, explore photographic history of the Brisbane River during times of change, and find out why it's important to be water-smart.

UQ Robogals

Presented by The University of Queensland

Get involved, have fun and be inspired with hands-on engineering at Robogals UQ! Join us by interacting with and programming LEGO robots. Because anyone can be an engineer.

UQ Science Demo Troupe

Presented by The University of Queensland

Do you have an enthusiasm and passion for science? Join UQ's Science Demo Troupe for hands-on activities including vortex creation, optical illusions, levitating superconductors and liquid nitrogen Burger Rings. This interactive and educational experience can be enjoyed by anyone.

Magic Mud Pit! and Scientist Photobooth

Presented by Young Scientists of Australia and National Youth Science Forum

Put on your lab coat, your safety glasses and strike a pose in the 'Scientist Photobooth' or come along and play in our Magic Mud Pit. Is it a solid? Is it a liquid? Is it both?

Dig it! Soil and the science beneath your feet

Presented by Soil Science Australia

Hands on soil fun for kids who like to dig, get their hands dirty and explore the world beneath their feet. We will have a series of activities where kids can explore the scientific properties of soil and find out what makes it such a wonderful and important resource for life on earth.

Natural History Hub

Presented by CSIRO

Australia is lucky enough to have some of the most amazing biodiversity in the world. Three quarters of our plants and animals are found nowhere else

STRATEGIC PARTNERS



ACADEMIC PARTNERS



STREET SCIENCE PARTNER



PRESENTED BY



on earth! Get up close to some of our most exciting insects with our travelling natural history displays and meet the living insects in our Bugs Alive! display. Tap into your creative side with our Creature Craft, where you can make your own insect antennae or mini terrariums to take home and watch grow! Come along and discover something new about Australia's unique biodiversity.

Australian Science Olympiads

Presented by Australian Science Innovations

Do you have what it takes to be a Science Olympian? Test your speed, precision and hand-eye coordination in a series of tasks designed to see if you have what it takes to be Australia's next Science Olympian. Science Olympians will be on hand to take you through your paces, give hints and tips and share their experience with you. You will hear firsthand what it's like to travel the world and compete as a science student - and learn what it takes to win a medal.

Museum Secrets Revealed

Presented by Australian Museum

What does a scientist at the Australian Museum (AM) have to do with the flight path of a plane? How can modern biological science help solve crimes?

Think you know what a plant looks like? Think again!

Discover what goes on behind the scenes and uncover the science behind the AM's collections. Get hands on with interactive displays and specimens; investigate genomics by extracting your very own strawberry DNA; and delve into the science of forensics! Find out not only how crime scene investigators take fingerprints, shoe prints, even ear prints, learn what it means to work in wildlife forensics and discover how our DNA lab assists with illegal wildlife trade. Go beyond DNA and explore the anatomy of flora and fauna from the inside out as our staff dissect specimens right in front of you!

Engineer for the Day

Presented by Arup

Ever wondered how a bridge stays up? What's under the road? How a train stays on the tracks? How sky scrapers are built? How a lift works? Or how cities are planned?

Engineers, designers and planners are responsible for answering these questions and designing the built environment that we live in. They use science, technology, engineering and maths every day to find solutions to complex problems such as how we travel, where we live and work, how we stay healthy, how we connect with each other and how we protect the environment.

Would you like to be an engineer, designer or planner for the day? We'll give you a problem to solve and will help you to work through the engineering design process. You'll brainstorm, plan and design, construct and test your creative solutions.

FIRST Robotics Showcase

Presented by Grace Lutheran College and FIRST® Australia

FIRST® (For the Inspiration, Recognition of Science and Technology) is the world's largest not for profit STEM advocacy organisation. FIRST® through partners such as Macquarie University, Queensland University of Technology and Grace Lutheran College inspires children from Prep to Year 12 to take on careers in Science and Technology via robotics competitions and special events. There will be hands on displays of Lego Mindstorms EV3 Robots that students can drive as well as larger creations made out of heavy duty materials.

HEALTH CHECK: RIVER TO BAY

Presented by Department of Science, IT and Innovation with Healthy Waterways and Catchments

How well do you know your river? Not so long ago the Brisbane River was declining because of the pollution pressures from expanding industry and a growing urban population.

Find out how the water quality in the river has changed over time; what's been put in place to turn the health of the river around; the role science played

in improving the health of this iconic waterway; and why a healthy Brisbane River is good for all of us.

Hands-on Chemistry

Presented by Street Science

Step into the 'Pop Up Science Lab' and explore basic chemical principles whilst immersing yourself in Seriously FUN science activities. With a focus on Chemistry this year, Street Science's "Hands-On Chemistry – Exploring Chemical and Physical Change" activities will give participants the opportunity to manipulate materials to make super bouncy balls. If you're short on time take the 'Express' line to make your very own sour and fizzy sherbet, which some say is the tastiest in the world! Stop by and See Science Steve, Jess and the team!

Reefs Alive

Presented by Great Barrier Reef Foundation, Department of Environment and Heritage Protection – Office of the Great Barrier Reef, and QUT

Immerse yourself in an underwater world of living coral reefs and meet some of the marine creatures who inhabit them and the scientists dedicated to protecting both.

Become a Reef Research Recruit for the day and uncover the real threats facing our great natural wonder with hands-on activities, demonstrations and experiments. Find out what coral skeletons feel like with specimens from the QUT research collection and get your hands wet conducting vital water quality tests.

Find inspiration at our reef creation station and join the challenge to help build a colourful reef wall with different types of coral.

LittleBits: Maker Kids

Presented by Flying Fox Studios

Flying Fox Studios is home to the Brisbane chapter of LittleBits. This international program seeks to put the power of electronics in the hands of everyone regardless of technical ability.

LittleBits is a platform of easy-to-use electronic building blocks that empower you to invent anything, from your own

remote controlled car to a smart home device. The Bits snap together with magnets; no soldering, no wiring, no programming needed.

We will be tinkering, powering, and sequencing using both LittleBits and other materials, bringing life to recycled, crafted, and everyday items. What will you upgrade?

Measuring Our Changing Oceans

Presented by Australian Institute of Marine Science

Dive into the exciting and mysterious world of tropical marine science with the Australian Institute of Marine Science (AIMS). Join our team of data detectives and science sleuths and learn how we capture clues, piece together pictures and solve some of marine sciences biggest questions. There will be virtual reality headsets, cool pieces of blue tech and fun hands-on activities!

Seed Science

Presented by Royal Botanic Garden Sydney

Australian plants have some of the most beautiful and unusual seeds and seed pods in the world. Come along to meet seed scientists and find out how understanding seeds can help to protect plants from extinction. Have a go at sorting seeds for yourself and take some home to plant in your garden.

Healthier Futures

Presented by QIMR Berghofer Medical Research Institute

The Queensland sun: Living in the Sunshine State, it helps to know how to be sun-safe. Make your own UV bracelet and watch the beads change colour with exposure to the sun. You'll be able to test what blocks the UV rays the best! Not for children aged 3 and under.

The world's deadliest animal: The tiny mosquito is the world's deadliest predator. Look at the specimens and make your own mozzie to take home. You'll be able to learn what is being done to protect children around the world from mosquito-transmitted diseases. Suitable for children of all ages.

Explore what's under the microscope: What can you see? Dress up like a

scientist and discover the difference between healthy and diseased cells. You'll be able to learn how medical researchers study the genetic and environmental causes of disease, and explore their prevention, diagnosis and treatment.

Radiation Exploration

Presented by Australasian Radiation Protection Society (Queensland Branch)

What is radiation? Where does it come from? What is it used for? How do we control it? Find the answers to these questions and more at Radiation Exploration.

The Queensland branch of the Australasian Radiation Protection Society is bringing experiments and displays for you to try out and learn about all things radiation. (Radio) Activities include measuring alpha, beta, and gamma ionising radiation; try different types of radiation shielding; test Faraday cages with non-ionising radiation; see your mobile phone's wavelength; look at different radioactive sources; learn about common uses of radiation in Queensland, and much more!

Become a TRI Medical Superhero

Presented by Translational Research Institute

People will experience the TRI Translational Pathway from discovery through to the world-wide health benefit.

Medical research projects at each of the milestones (T1 to T5) will feature interactive displays featuring 3D printing; computer generated avatars of real people to identify melanomas; the mysterious world of cells; and how vaccines are developed.

There will be five separate stations for each of the translational pathway milestones. People can follow the pathway from T1 to T5 or just visit a station that interests them.

After completing the pathway, participants can become a 'Cell Power Ranger'; a '3D Body Builder'; a 'Cancer Crusader' or another medical superhero.

Walking Tours of Brisbane

Building Stones

Presented by Geological Society of Australia

The Geological Society of Australia will hold walking tours of Brisbane city area focusing on the building stones used in the construction of the buildings from early colonial times to the present using the Brisbane Building Stone App as a basis for the tour. As well as building stones, the App has a lot of information on the history of building in the colony and also a focus on the architecture of the day.

Walking tours will run throughout the day and will start and finish at the stall site.

Bubble-ology

Presented by Scale Free Network

Join Scale Free Network: art-science collaborative in an experiment of grand proportions, creating gigantic bubbles using special wands and a perfectly-prepared potion. Marvel at the scale and movement of these wonderful forms as they are set free over the festival. Learn more about the chemistry of bubbles... and maybe have a turn creating one yourself! Information sheets containing our special bubble recipe and wand-making instructions are available so you can make your own at home. Find us by following the big, transparent orbs in the sky.

Brushbot Robotics

Presented by HSBNE

Learn basic robotics and make your own brush bot! These little critters are solar powered and move by vibration, scuttling about when placed in sunshine. Learn basic circuitry and the power of electronics. Decorate them and race them against one another! This workshop is provided by HSBNE Inc., the Brisbane's largest community workshop and collective of makers.

Go For Launch!

Presented by It's Rocket Science School Incursions

It's Rocket Science School Incursions emphasis that science can be better understood through its practice.

It's Rocket Science School Incursions offer school age students across Queensland the rare opportunity to experience the exciting field of rocketry. Participants will be able to conduct experiments whilst applying the scientific philosophy of predict, observe and evaluate in the performance of their individual rocket.

Our qualified science educators will provide visitors with a taste of our workshop and encourage you to engage with ideas beyond the familiar. We guarantee you will not encounter this experience on any smart device!

Daytime Solar Viewing

Presented by Brisbane Astronomical Society

Are you an amateur astronomer? Come along and visit Brisbane Astronomical Society for day time solar viewing. Telescope observations of the moon, sunspots, solar flares and coronial mass ejections should all be possible.

Robotics and Discovery Play for Under 5s

Presented by C&K

Children learn faster in the first five years, than at any other stage of life. Open a child's mind in this unique space at the World Science Festival.

Here children can develop a sense of curiosity and observe the natural world, through exciting hands-on experiences – everything from coding robots to rescuing sea animals. Prepare your child to be amazed.

C&K has been educating and caring for children for over a century in kindergartens and childcare services across Queensland. Children at C&K services learn through play and through engagement with the natural environment in preparation for school and their life-long learning journey.

Einstein's Science Snap

Presented by Advance Queensland

Fancy pitting your wits against Einstein in a quick-fire game of cards?

During the World Science Festival Brisbane join one of our Advance Queensland Einstein's for game of

science themed SNAP! ... and grab a cheeky photo of you and your family with one these rock-stars of science!

Keep your eyes open for our Snappy Scientists during the two days Street Science and share your best 'Einstein and me' pic with #ScienceSnap and #AdvanceQld.