# WORLD SCIENCE FESTIVAL BRISBANE

# SCHOOL PROGRAM

**WEDNESDAY 20 MARCH – FRIDAY 22 MARCH 2024**

Presented with QPAC

World Science Festival Brisbane (WSFB) 2024 will ignite your students’ imagination and get them excited about tackling all things STEM. Following feedback from our dedicated teacher audience, we have updated the 2024 program to better suit your class needs. Programs have

been designed to encourage a strong STEM literacy from Prep-Y12, with links to Queensland curriculum and more targeted year ranges and subjects, as requested by you.

This program guide has also been designed to help with your planning, with programs for primary at the start of the document, followed by middle school and concluding with senior school. At the end of this document are detailed schedules, broken up into age ranges to further support your planning. WSFB 2024 offers STEM with attitude! We invite you to step out of the classroom and get hands-on with a fun, supportive program that unpacks STEM education for you and your students.

# TICKETS

# All tickets for School Program are $10 per student per session as part of a group booking.

# SUPERVISION

**Adult/Child Ratio**

One adult will receive FREE entry to World Science Festival Brisbane education programs for every:

* 3 x students in Prep
* 5 x students in Years 1 to 6
* 10 x students in Years 7 to 10
* 15 x students in Years 11 to 12

Please note you will need to quote adult numbers when purchasing tickets.

# STUDENT SUPERVISION

Group supervisors are responsible for students and children while at World Science Festival Brisbane and should remain with their students at all times.

# BOOKINGS

School bookings must be made through QTIX Group Sales. To book, please complete the [QTIX School Group Booking](https://www.qtix.com.au/groups-and-school-bookings/schools-booking-request/)  [Request form](https://www.qtix.com.au/groups-and-school-bookings/schools-booking-request/) for each event\*, or via the Get Tickets link on the [World Science Festival Brisbane website](https://www.worldsciencefestival.com.au/2023-school-program).

\**SparkLab* and exhibitions at Queensland Museum should be booked online through [Queensland Museum Schools and](https://www.qm.qld.gov.au/Visit%2BUs/Schools%2Band%2BGroups/School%2BGroup%2BBooking)  [Groups Bookings](https://www.qm.qld.gov.au/Visit%2BUs/Schools%2Band%2BGroups/School%2BGroup%2BBooking).

If you have any questions, please phone the Queensland Museum Bookings Officer on (07) 3153 4401 from Monday to Friday 8am–4pm.

# RISK ASSESSMENT

We’ve started the process for you. Download our [Risk Assessment Guide](https://www.worldsciencefestival.com.au/festival-information/brisbane/information-for-schools).

# VISITORS WITH INDIVIDUAL NEEDS

At Queensland Museum we aim to provide convenient access to all visitors.

For more information visit the [Queensland Museum website](http://www.qm.qld.gov.au/Visit%2BUs/Access) or phone Group Bookings on (07) 3153 4401.

# ACCESS TO THE CULTURAL CENTRE

From mid-July 2022 until 2024, road directions and access around the Cultural Centre will change.

[Learn more](https://www.brisbane.qld.gov.au/traffic-and-transport/public-transport/brisbane-metro/brisbane-metro-project-news/brisbane-metro-construction-updates#cultural-centre) about work around the Queensland Cultural Centre or [download the area map](https://www.brisbane.qld.gov.au/sites/default/files/documents/2022-08/20220831-Brisbane-Metro-Map-Changed-traffic-pedestrian-and-public-transport-access.docx).

# FOSSILS! QUEENSLAND’S QUIRKIEST CREATURES

## WHEN:Thursday 21 March 2024

## SESSION TIMES:10am-11am (Years P-3)1pm-2pm (Years 4-6)

## WHERE:

Playhouse Theatre, QPAC

## SUITABILITY:

Years P–6

Explore the Queensland Museum’s extensive and priceless fossil collection to uncover some of Queensland’s most intriguing extinct creatures. Students will hear thrilling stories about the animals that once roamed our planet as well as see a fossil jacket prepared in real time. Queensland’s quirky creatures won’t stay hidden for long as our scientific experts interrogate the fossils they left behind. Don’t miss this chance to be a part of an unforgettable adventure into the world of palaeontology!

This program explores [Ethical Understanding](https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/ethical-understanding/), [Science as a Human Endeavour](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12003&year=12004&year=12005&year=12006&strand=Science+as+a+Human+Endeavour&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) and [Science Inquiry](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12003&year=12004&year=12005&year=12006&strand=Science+Inquiry+Skills&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false), with key curriculum links in [Biological Science](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12003&year=12004&year=12005&year=12006&strand=Science+Understanding&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years P,1,3-6, [Earth Science](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12004&year=12006&strand=Science+Understanding&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years 4,6 and [Technologies](https://www.australiancurriculum.edu.au/f-10-curriculum/technologies/design-and-technologies/?year=12973&year=12974&year=12975&strand=Design+and+Technologies+Knowledge+and+Understanding&strand=Design+and+Technologies+Processes+and+Production+Skills&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years P-6. Supporting Learning Resources: [I Dig Discovery](https://www.museum.qld.gov.au/collections-and-research/projects/project-dig/expanding-education-with-project-dig)

**MATHS, MUSIC & SUM SONGS**

**WHEN:**

Thursday 21 March 2024

**SESSION TIMES:**

10am-11am (Years 4-6)

1pm-2pm (Years P-3)

**WHERE:**

Cremorne Theatre, QPAC

## SUITABILITY:

Years P–6

Warm up the vocal chords and stretch those creative muscles as musical equations sing to their own beat. Vocal adventurers and multi-instrumentalists Mal Webb and Kylie Morrigan are joined by Science Communicator Dr Joel Gilmore for this musically inspired maths party that strings together merry numerical melodies in a fun and engaging performance. Even the toughest maths critics will be inspired as rhythm takes shape, sequences sing and mathematical concepts are pitched in perfect harmony to primary-aged students. Don’t miss the marvel of how maths and music add up in this remarkable performance.

This program explores [Numeracy](https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/numeracy/), [Science as a Human Endeavour](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12003&year=12004&year=12005&year=12006&strand=Science+as+a+Human+Endeavour&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) and [Science Inquiry](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12003&year=12004&year=12005&year=12006&strand=Science+Inquiry+Skills&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false), with key curriculum links in [Mathematics](https://australiancurriculum.edu.au/f-10-curriculum/mathematics/?year=11751&year=11752&year=11753&year=11754&year=11755&year=11756&year=11757&strand=Number+and+Algebra&strand=Measurement+and+Geometry&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) and [Music](https://www.australiancurriculum.edu.au/f-10-curriculum/the-arts/music/?year=12746&year=12747&year=12748&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years P-6.

**LIGHTING OUR UNIVERSE: PHYSICAL SCIENCE**

## WHEN:

## Thursday 21 March 2024

## SESSION TIMES:

## 9:30am-10:15am (Years 4-6)

## 12pm-12:45pm (Years P-3)

## WHERE:

## Auditorium 1, State Library of Queensland

## SUITABILITY:

## Years P–6

Discover the fascinating world of physics as researcher Emerald Gaydon journeys through the cosmos to share the marvels of how we see and perceive our universe. With a touch of theatrical magic, students will experience interactive demonstrations and awe-inspiring simulations as electricity and magnetism collide to light up the world we call home. Experience the thrill of discovery in a show that is as educational as it is entertaining.

This program explores [Science as a Human Endeavour](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12003&year=12004&year=12005&year=12006&strand=Science+as+a+Human+Endeavour&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) and [Science Inquiry](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12003&year=12004&year=12005&year=12006&strand=Science+Inquiry+Skills&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false), with key curriculum links in [Physical Science](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12003&year=12004&year=12005&year=12006&strand=Science+Understanding&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years P-6 and [Earth Science](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12003&year=12004&year=12005&year=12006&strand=Science+Understanding&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years 1,3,5.

**DR. GRAHAM’S BLOW-UP SCIENCE**

## WHEN:

## Friday 22 March 2024

## SESSION TIMES:

## 10am-11am (Years 4-6)

## 1pm-1:45pm (Years P-3)

## WHERE:

## Cremorne Theatre, QPAC

## SUITABILITY:

## Years P–6

## Can you really launch marshmallows out of a vacuum cleaner, make rockets from common household items, or launch teddy bears using liquid nitrogen? Prepare yourself for some seriously mind-bending science as Dr Graham explodes his way through the chemistry and physics of things that go bubble, boom, zoom and bang… and occasionally catch on fire. From a leaf-blower levitated basketball to piloting hoverboards, this fun show is packed with audience involvement, laughs, exciting experiments, brain-rattling explosions, learning and more.

## This program explores [Science as a Human Endeavour](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12003&year=12004&year=12005&year=12006&strand=Science+as+a+Human+Endeavour&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) and [Science Inquiry](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12003&year=12004&year=12005&year=12006&strand=Science+Inquiry+Skills&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false), with key curriculum links in [Physical Science](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12003&year=12004&year=12005&year=12006&strand=Science+Understanding&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) and [Chemical Science](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12003&year=12004&year=12005&year=12006&strand=Science+Understanding&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years P-6.

## SCIENCE OF BEATBOXING

## WHEN:

## Friday 22 March 2024

## SESSION TIMES:

## 10am-10:45am (Years P-3)

## 11:45am-12:45pm (Years 4-6)

## WHERE:

## Auditorium 1, State Library of Queensland

## SUITABILITY:

## Years P–6

## Beatboxers are capable of producing incredible and unexpected sounds. These artists use a combination of mouth, lips, tongue and voice in a way that fascinates scientists. Vocal explorer and songwriter Mal Webb takes you on a lip-to-lung journey through the physics, physiology and *phrivolity* of all the sounds a face can make. In this interactive show, students will learn the amazing beatboxing secrets and how the enthralling array of sounds can be produced.

## This program explores [Critical and Creative Thinking](https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/critical-and-creative-thinking/), [Science as a Human Endeavour](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12003&year=12004&year=12005&year=12006&strand=Science+as+a+Human+Endeavour&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) and [Science Inquiry](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12003&year=12004&year=12005&year=12006&strand=Science+Inquiry+Skills&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years P-6, with key curriculum links in [Physical Science](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12004&strand=Science+Understanding&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years P-2,4 and [Music](https://www.australiancurriculum.edu.au/f-10-curriculum/the-arts/music/?year=12746&year=12747&year=12748&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years P-6.

## BUILD A SPY ROBOT

## WHEN:

## Thursday 21 March 2024

## SESSION TIMES:

## 9:30am-10:45am (Years 4-6)

## 11:15am-12:30pm (Years 4-6)

## WHERE:

## The Edge, State Library of Queensland

## SUITABILITY:

## Years 4–6

## Immerse your students in a hands-on workshop that will develop skills in integrating mechanical, electrical and software to create robotic systems. After exploring the electronic fundamentals of robotics, students will be introduced to the powerful open-source technology platform of Arduino, before joining in the build of the ultrasonic Spy Robot.

## Presented by integratedSTEM and led by passionate engineers and educators, students will be inspired through STEM technologies and excite their passion of learning in this engaging session.

## This program explores [Critical and Creative Thinking](https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/critical-and-creative-thinking/) and [Science Inquiry](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12004&year=12005&year=12006&strand=Science+Inquiry+Skills&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false), with key curriculum links in [Design and Technologies](https://www.australiancurriculum.edu.au/f-10-curriculum/technologies/design-and-technologies/?year=12974&year=12975&strand=Design+and+Technologies+Knowledge+and+Understanding&strand=Design+and+Technologies+Processes+and+Production+Skills&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) and [Digital Technologies](https://www.australiancurriculum.edu.au/f-10-curriculum/technologies/digital-technologies/?year=12984&year=12985&strand=Digital+Technologies+Knowledge+and+Understanding&strand=Digital+Technologies+Processes+and+Production+Skills&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years 4-6.

## WILD RANGERS WILDLIFE ENCOUNTERS

## WHEN:

## Friday 22 March 2024

## SESSION TIMES:

## 10am-10:30am

## 11am-11:30am

## 1pm-1:30pm

## 2pm-2:30pm

## WHERE:

## Queensland Museum Theatre, Queensland Museum

## SUITABILITY:

## All Ages

## Returning to World Science Festival Brisbane are the Wild Rangers! Learning about wildlife conservation has never been more fun as students get up-close with some of Australia’s wonderful and unique mammals, reptiles and more. This interactive and fun educational wildlife show teaches awareness and respect of the natural world, as well as learning about the animals’ day to day lives and observable features. Students will also discuss the importance of conservation and why protecting our native species and their habitats is so important. Always a highlight for the students, don’t miss Wild Rangers Wildlife Encounters. Presented by Wild Rangers.

## This program explores [Ethical Understandings](https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/ethical-understanding/), [Science as a Human Endeavour](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12003&year=12004&year=12005&year=12006&year=12007&year=12008&year=12009&year=12010&strand=Science+as+a+Human+Endeavour&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) and [Science Inquiry](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12003&year=12004&year=12005&year=12006&year=12007&year=12008&year=12009&year=12010&strand=Science+Inquiry+Skills&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false), with key curriculum links in [Biological Science](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12003&year=12004&year=12005&year=12006&strand=Science+Understanding&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years P-6.

## THE INVISIBLE UNIVERSE

## WHEN:

## Wednesday 20 March 2024

## SESSION TIMES:

## 10am-11am (Years 6-8)

## 1:15pm-2:15pm (Years 9-12)

## WHERE:

## Playhouse Theatre, QPAC

## SUITABILITY:

## Years 6-12

## Have you ever wondered what’s between the stars? What fills the dark patches of sky, the bits between the recognised? Is the emptiness really empty? The answer is no! We now know there are black holes, dust, dark matter and even Earth-like planets hiding in the dark places. Join scientific experts from The University of Queensland for a cosmic demonstration and discover how astronomers have learned to explore the dark regions of the universe and “illuminate” what we can’t see.

## This program explores [Science as a Human Endeavour](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12006&year=12007&year=12008&year=12009&year=12010&strand=Science+as+a+Human+Endeavour&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years 6-12, with key curriculum links in [Physical Science](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12007&year=12008&year=12009&year=12010&strand=Science+Understanding&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years 7-10, [Chemical Science](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12008&year=12009&year=12010&strand=Science+Understanding&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years 8-10 and [Earth and Space Science](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12007&year=12010&strand=Science+Understanding&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years 7,10 as well as [Physics](https://www.qcaa.qld.edu.au/senior/senior-subjects/sciences/physics/syllabus), [Chemistry](https://australiancurriculum.edu.au/senior-secondary-curriculum/science/chemistry/?unit=Unit+1) and [Earth & Environmental Science](https://www.qcaa.qld.edu.au/downloads/senior-qce/syllabuses/snr_earth_science_19_syll.pdf) for Years 11-1.

## EPIC SCIENCE ADVENTURES

## WHEN:

## Wednesday 20 March 2024

## SESSION TIMES:

## 10am-11am (Years 9-12)

## 1:15pm-2:15pm (Years 6-8)

## WHERE:

## Cremorne Theatre, QPAC

## SUITABILITY:

## Years 6-12

## A career in STEM can take you to some extraordinary places and epic adventures to uncover the mysteries of our amazing planet. More than experiments in labs or reviewing samples, the world of STEM post-secondary school offers incredible variety in activity and interests. Showcasing a variety of STEM and industry professionals, Epic Science Adventures will demonstrate to students the real-world inspirational jobs that show there’s no limit to where they might go and what they can do!

## This program explores [Critical and Creative Thinking](https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/critical-and-creative-thinking/) and [Science as a Human Endeavour](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12006&year=12007&year=12008&year=12009&year=12010&strand=Science+as+a+Human+Endeavour&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years 6-12.

## GREAT EXPECTATIONS: THE PREDICTIVE BRAIN

## WHEN:

## Wednesday 20 March 2024

## SESSION TIMES:

## 9:30am-10:30am (Years 9-12)

## 11:30am-12:30pm (Years 6-8)

## WHERE:

## Auditorium 1, State Library of Queensland

## SUITABILITY:

## Years 6-12

## Much like autocorrect on our phone, our brains are constantly making predictions based on our unique history. *Great Expectations: The Predictive Brain* is a thought-provoking experience to unravel the brilliance within our minds, as we look at how our brain navigates a world of prediction and surprise. Consider the brain as a prediction machine that never quite gets there. What might this say about consciousness? How might this be optimised by sleep? Join scientists for a thought-provoking experience towards understanding that our expectations largely determine what we perceive, and how students can implement this understanding to their study, schoolwork and relationships.

## This program explores [Personal and Social Capacity](https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/personal-and-social-capability/) and [Science as a Human Endeavour](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12006&year=12007&year=12008&year=12009&year=12010&strand=Science+as+a+Human+Endeavour&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false), with key curriculum links in Health for Years 6-10, [Biological Science](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12009&year=12010&strand=Science+Understanding&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years 9-10 as well as [Biology](https://www.qcaa.qld.edu.au/downloads/senior-qce/syllabuses/snr_biology_19_syll.pdf) and [Psychology](https://www.qcaa.qld.edu.au/downloads/senior-qce/syllabuses/snr_psychology_19_syll.pdf) for Years 11-12.

## POKÉMON™: ARE THEY BIOLOGICALLY POSSIBLE?

## WHEN:

## Wednesday 20 March 2024

## SESSION TIMES:

## 1:15pm-2:15pm (Years 6-8)

## WHERE:

## Queensland Museum Theatre, Queensland Museum

## SUITABILITY:

## Years 6-8

## This special presentation explores the biological possibility of Pokémon ... Seriously.

## The weird and whimsical world of Pokémon™ is filled with colourful animated characters, many of which draw inspiration from animals and plants of the natural world. Can you identify the living inspiration for some Pokémon™ and determine if they are biologically possible? Specialist in Ecology and Zoology, The University of Queensland’s Dr. Gurion Ang will take you on a journey to explore this unexpected world of biology. Limited tickets available, don’t miss out.

## This program explores [Critical and Creative Thinking](https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/critical-and-creative-thinking/), [Science as a Human Endeavour](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12006&year=12007&year=12008&strand=Science+as+a+Human+Endeavour&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false), and [Science Inquiry](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12006&year=12007&year=12008&strand=Science+Inquiry+Skills&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false), with key curriculum links on [Biological Science](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12006&year=12007&year=12008&strand=Science+Understanding&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years 6-8.

## BUILDING SUSTAINABLE CITIES

## WHEN: Wednesday 20 March 2024

## SESSION TIMES:

## 9:30am-11:30am (Years 9-10)

## 12:30pm-2:30pm (Years 6-8)

## WHERE: The Edge, State Library of Queensland

## SUITABILITY: Years 6-8

## Calling all young visionaries, eco-enthusiasts and future city planners! In this dynamic, interactive workshop, students and educators will be inspired to use their very best STEM skills to think differently about the cities of tomorrow. Join Griffith University’s environmental engineer, Dr. Jennifer Campbell to explore the fascinating world of ecological engineering, resource management and blue-green infrastructure. Build essential teamwork, problem solving and inquiry skills linked to the Australian Curriculum. In this hands-on experience, students become the architects of change. Let their creativity run wild as they design cities of the future by revolutionising our urban landscapes. Teachers will receive Professional Development Certificates from Griffith University aligned with the QCT Professional Standards for attending.

## This program explores [Critical and Creative Thinking](https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/critical-and-creative-thinking/), [Science as a Human Endeavour](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12006&year=12007&year=12008&year=12009&year=12010&strand=Science+as+a+Human+Endeavour&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) and [Science Inquiry](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12006&year=12007&year=12008&year=12009&year=12010&strand=Science+Inquiry+Skills&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false), with key curriculum links in [Design and Technologies](https://www.australiancurriculum.edu.au/f-10-curriculum/technologies/design-and-technologies/?year=12975&year=12976&year=12977&strand=Design+and+Technologies+Knowledge+and+Understanding&strand=Design+and+Technologies+Processes+and+Production+Skills&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years 6-10.

## AERIAL DESIGN CHALLENGE

## WHEN:

## Friday 22 March 2024

## SESSION TIMES:

## 10am-11:30am (Years 7-9)

## 1pm-2:30pm (Years 10-12)

## WHERE:

## The Studio, State Library of Queensland

## SUITABILITY:

## Years 7-12

## Calling all future Aerospace Engineers! Experience the thrill of designing and building an aircraft to carry precious cargo to a remote community. Learn about the theory of flight, the forces acting on an aircraft and be inspired by rocket scientists, aeronautical engineers and test pilots. This interactive and engaging workshop demonstrates the connections between STEM subjects at school and real-life applications. Presented by Cool Aeronautics.

## This program explores [Critical and Creative Thinking](https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/critical-and-creative-thinking/), [Science as a Human Endeavour](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12007&year=12008&year=12009&year=12010&strand=Science+as+a+Human+Endeavour&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) and [Science Inquiry](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12007&year=12008&year=12009&year=12010&strand=Science+Inquiry+Skills&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false), with key curriculum links in [Design and Technologies](https://www.australiancurriculum.edu.au/f-10-curriculum/technologies/design-and-technologies/?year=12976&year=12977&strand=Design+and+Technologies+Knowledge+and+Understanding&strand=Design+and+Technologies+Processes+and+Production+Skills&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) and [Physical Science](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12007&year=12008&year=12009&year=12010&strand=Science+Understanding&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years 7-10 as well as [Engineering](https://www.qcaa.qld.edu.au/downloads/senior-qce/syllabuses/snr_engineering_19_syll.pdf), [Aerospace Systems](https://www.qcaa.qld.edu.au/downloads/senior-qce/syllabuses/snr_aerospace_sys_19_syll.pdf) and [Physics](https://www.qcaa.qld.edu.au/downloads/senior-qce/syllabuses/snr_physics_19_syll.pdf) for Years 11-12.

## DESIGNING SOLUTIONS: OLYMPICS 2032

## WHEN: Friday 22 March 2024

## SESSION TIMES:

## 9:45am-11:15am (Years 9-10)

## 12:15pm-1:45pm (Years 7-8)

## WHERE: The Edge, State Library of Queensland

## Expanding the Port of Brisbane (Years 7-8)

## In order to deliver oversized building components for the Brisbane Olympic village, the Port of Brisbane will need to be re-engineered to accommodate larger vessels. This workshop investigates the widening of a shipping channel and highlights the creative and problem-solving aspect of Engineers.

## Olympic Village Sustainability: Designing Solutions (Years 9-10)

## In preparation for the Olympics in 2032, students will design solutions for how we can make the Brisbane Olympics the most sustainable yet. Students will explore the diverse nature of engineering, learn from the case study of the Tokyo Olympics and review levers associated with a carbon footprint. Students will pitch their proposed plan at the end of each workshop. Presented by Power of Engineering.

## This program explores [Critical and Creative Thinking](https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/critical-and-creative-thinking/), [Science as a Human Endeavour](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12007&year=12008&year=12009&year=12010&strand=Science+as+a+Human+Endeavour&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) and [Science Inquiry](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12007&year=12008&year=12009&year=12010&strand=Science+Inquiry+Skills&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false), with key curriculum links in [Design and Technologies](https://www.australiancurriculum.edu.au/f-10-curriculum/technologies/design-and-technologies/?year=12976&year=12977&strand=Design+and+Technologies+Knowledge+and+Understanding&strand=Design+and+Technologies+Processes+and+Production+Skills&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years 7-10.

## DR. G TALKS IA3

## WHEN:

## Wednesday 20 March 2024

## SESSION TIMES:

## 11am-12:30pm (Years 11-12)

## WHERE:

## Queensland Museum Theatre, Queensland Museum

## SUITABILITY:

## Years 11-12

## Join The University of Queensland’s Dr. Gurion Ang as he shares tips and tricks to make IA3 for senior sciences less daunting. Year 11 and 12 students will pick up strategies for their science Internal Assessment 3: Research Investigation, including how to find credible sources of scientific evidence, structuring a scientific narrative and forming a relevant and specific research question from a research claim.

## This session is recommended to senior students studying Biology, however students studying other sciences (especially Agricultural Science, Earth & Environmental Science and Marine Science) will find this session valuable as well.

## This program explores [Science Inquiry Skills](https://www.australiancurriculum.edu.au/senior-secondary-curriculum/science/biology/?unit=Unit+1&unit=Unit+2&unit=Unit+3&unit=Unit+4).

## FUTURE CAREERS WITH DR. KARL KRUSZELNICKI

## WHEN:

## Friday 22 March 2024

## SESSION TIMES:

## 10am-11:30am (Years 7-12)

## WHERE:

## Playhouse Theatre, QPAC

## SUITABILITY:

## Years 7-12

## Science is probably the best possible ‘mental toolbox’ that you can have, with incredibly diverse career selection opportunities. Dr Karl will discuss future careers across the many STEM pathways, including Genetics, Engineering, basic Physics, Computer Science and the big one - your environment. Part science, part career guidance, part entertainment - and all fun. Don’t forget to [submit](https://airtable.com/appHe23gJOBkbH5Ou/shrS3g8aV4V6qQrIq) your burning science questions for the Q&A!

## This program explores [Critical and Creative Thinking](https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/critical-and-creative-thinking/) and [Science as a Human Endeavour](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12007&year=12008&year=12009&year=12010&strand=Science+as+a+Human+Endeavour&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years 7-12.

**FREE**

## ART/SCIENCE EXPERIENCE

## WHEN: Wednesday 20 – Friday 22 March 2024

## SESSION TIMES:

## Wed: 11:15am–11:45am, 12:30pm–1pm

## Thu: 11:15am–11:45am, 12:15pm–12:45pm

## Fri: 11:15am–11:45am, 12:15pm–12:45pm

## WHERE: Cultural Forecourt, South Bank

## SUITABILITY: Years 7-12

## Don’t miss an exciting experience where science, art and technology collide. Featuring Australian premiere artworks, hear directly from the experts as they share in-depth information around the works, and discover the relationship between art and science. We invite you and your students to look down the creative lens and into a unique scientific landscape that encourages exploration, critical thinking and a chance to question how society is impacting our future.

## This program is an evolution of the popular Curiocity Brisbane, which offered a trail of artworks for students to discover. In 2024, WSFB continues to extend the creativity around art and science in a program that features artworks on a larger, more engaging scale than ever before. With links into Visual Arts, STEM, Science and Digital Technologies, Art/Science Experience will be a fun and interactive way for students to witness how arts and science are entwined to present STEM in a creative and engaging way. The session will commence with a discussion with our art/ science expert, followed by the chance for students to interact and explore the artworks.

## This program explores [Critical and Creative Thinking](https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/critical-and-creative-thinking/).

**FREE**

## THE HATCHERY: TURTLE CONSERVATION EXPERIENCE

## WHEN:

## Wednesday 20 – Friday 22 March 2024

## SESSION TIMES:

## 11am-11:30am

## 11:30am-12pm

## 1pm-1:30pm

## 1:30pm-2pm

## 2pm-2:30pm

## 2:30pm-3pm

## WHERE:

## Level 4, Queensland Museum

## NOTES: Due to the limited venue capacity for this program, please book only ONE session per school. Sessions can accommodate up to 70 people (including students, teachers/carers). Please arrive 10 minutes before your scheduled ticket entry time. For example, if your ticket time is 11am please arrive at the Museum no later than 10.50am. The Hatchery is open to the general public after 3pm.

## World Science Festival Brisbane’s hugely popular annual turtle hatching offers a rare opportunity for students to witness nature at its finest, while learning about a real-world conservation initiative that has been crucial to the survival of Australia’s precious Loggerhead turtles. Students will get a rare glimpse of turtles hatching in incubation chambers and their first foray into an ocean environment in specially designed seawater tanks.

## This initiative is designed in collaboration with internationally renowned herpetologist Colin Limpus and Queensland Museum Senior Scientist and Curator, Reptiles and Amphibians, Patrick Couper.

## After the festival, the newborn turtles will be transported to the Sunshine Coast and released 20 kilometres offshore.

## This program explores [Ethical Understandings](https://www.australiancurriculum.edu.au/f-10-curriculum/general-capabilities/ethical-understanding/), [Science as a Human Endeavour](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12003&year=12004&year=12005&year=12006&year=12007&year=12008&year=12009&year=12010&strand=Science+as+a+Human+Endeavour&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) and [Science Inquiry](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12003&year=12004&year=12005&year=12006&year=12007&year=12008&year=12009&year=12010&strand=Science+Inquiry+Skills&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years P-10, with key curriculum links in [Biological Science](https://www.australiancurriculum.edu.au/f-10-curriculum/science/?year=12000&year=12001&year=12002&year=12003&year=12004&year=12005&year=12006&year=12007&strand=Science+Understanding&elaborations=true&elaborations=false&scotterms=false&isFirstPageLoad=false) for Years P-7.

## GATEWAY TO STEM PROFESSIONAL DEVELOPMENT DAY

## WHEN:

## Thursday 21 March 2024

## SESSION TIMES:

## 9am-3pm

## TICKETS:

## $70 per educator

## BOOKINGS:

## via the WSFB website or call Queensland Museum on (07) 3153 4401 Monday to Friday 8am-4pm

## WHERE:

## Queensland Museum Theatre, Queensland Museum

## In this one-of-a-kind learning experience teachers will gain guided access to Queensland Museum’s priceless resources, drawing inspiration from the State Collection, exhibitions, and cutting-edge research directly aligned with the Australian Curriculum. Carefully crafted to enhance teaching practices across Years 5 to 10, Queensland Museum staff will lead educators through collaborative activities designed to boost their skills and confidence in delivering innovative and captivating STEM lessons through two exciting sessions - Fantastic Features and Problematic Polymers.

## Teachers will also enjoy VIP access to World Science Festival Brisbane (WSFB) favourite [The Hatchery](https://www.worldsciencefestival.com.au/event-program/brisbane/2024-the-hatchery-school-sessions), a free ticket into Queensland Museum’s newest block buster exhibition [Jurassic World Brickman](https://www.museum.qld.gov.au/queensland-museum/whats-on/jurassic-world-by-brickman) as well as a complimentary ticket to WSFB Conversation at QPAC following this event.

## We’re proud to partner with Future Makers, a ground-breaking collaboration between Queensland Museum Network and Shell’s QGC business. Together, we are dedicated to equipping educators with curriculum-aligned resources, strategies and to empower our teaching community to deliver impactful STEM activities across Queensland.

## Find out Curriculum Links, and more on Fantastic Features and Problematic Polymers, [HERE](https://www.worldsciencefestival.com.au/wp-content/uploads/2023/10/WSFB-2024-Teacher-PD-Supporting-PDF.pdf).

# QUEENSLAND MUSEUM EXHIBITIONS

Queensland Museum presents a dynamic program of interactive exhibitions that tell the stories of Queenslanders from prehistoric times to modern day discovery.

* The Butterfly Man of Kuranda: The Dodd Collection
* Insect Agency
* Minerals: Inspirational Treasures from the Earth
* Dinosaurs Unearthed
* Anzac Legacy Gallery
* SparkLab
* Discovery Centre
* Dinosaur Garden
* Wild State
* Jurassic World by Brickman®

If you would like to visit any Queensland Museum exhibitions, please [book online](http://www.qm.qld.gov.au/Visit%2BUs/Schools%2Band%2BGroups/School%2BGroup%2BBooking).

Bookings are essential for all schools and groups. There are charges for select exhibitions. [Visit our website](http://www.qm.qld.gov.au/Visit%2BUs/Schools%2Band%2BGroups/Planning%2Byour%2Bvisit) for details. If you have any questions about the bookings process, please phone the Queensland Museum Bookings Officer on (07) 3153 4401 from Monday to Friday 8am–4pm.

# *SPARKLAB*, QUEENSLAND MUSEUM

## WHEN:

Wednesday 22 – Friday 24 March 2023

## SESSION TIMES:

10am–11am 11:00am–12 pm

12pm–1pm 1pm–2pm

## WHERE:

Queensland Museum, Level 1

Grey Street, South Brisbane, Queensland

## SUITABILITY:

Years P–8

Queensland Museum’s premier STEM space, *SparkLab* encourages students to feed their inquisitive minds through hands-on, interactive play. At the *Maker Space*, students can design and build a solution to a real- world challenge, test their ideas, and improve their designs accordingly. *The Science Bar* allows students to engage with live experiments, while *Science on a Sphere* explores subjects ranging from extreme weather events to the surface of Mars.

Supporting Learning Resources: [*SparkLab* Exhibition Guide,](https://sparklab.qm.qld.gov.au/learning/resources)  [Curriculum Links Prep – Year 2/ Year 3 – 4/ Year 5 – 6/ Year](https://sparklab.qm.qld.gov.au/learning/resources)  [7 – 8](https://sparklab.qm.qld.gov.au/learning/resources), [Maker space resources](https://sparklab.qm.qld.gov.au/explore-sparklab/maker-space), [Activities for the classroom](https://sparklab.qm.qld.gov.au/explore-sparklab/sparklab-at-home).