

QUEENSLAND
MUSEUM
NETWORK

PRESENTS

World
Science
Festival
Brisbane

IT'S LIVE!
in Queensland

TEACHER RESOURCE
CURIOS SCHOOLS



FEATURING

CURIOUS CITY
BRISBANE

brisbane
ECONOMIC DEVELOPMENT AGENCY
BRISBANE CITY COUNCIL

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Image: *Evanescent* by Chimera Atelier and Pineapple Design Studio, Curiosity Brisbane 2021 Tourism and Events Queensland.

ART VS. SCIENCE

STEM-literacy is fundamental in a world increasingly saturated with advertising and mixed messages from the media. Having basic scientific literacy helps us to navigate some very practical questions, like: how can we trust vaccines, should we use energy-saving lightbulbs, and why is it important to be healthy?

Science should be shared with everyone, in an accessible and clear manner. Why is this important? Well, it gives us a sense of wonder and curiosity, encourages us to find better ways of doing things, and it help us look after ourselves and our planet.

One way of making science accessible, is by presenting it in creative ways, like the artists who participated in [Curiosity Brisbane 2022](#). As you engage with these public artworks, what will you discover about science, about yourself, or about the state of the planet?

CURIOUS SCHOOLS

This resource is a practical guide for teachers to use when designing a response to the World Science Festival's Curiosity Schools Challenge. Teachers may use this resource to develop a response for future challenges (2023 and beyond), or as a rich learning experience.

Using this resource, schools, classes or individual students can develop ideas for an installation artwork. The installation can be physical or digital and must respond to one or more STEM domain (Science, Technology, Engineering and Mathematics).

About the challenge

In 2021, Queensland Museum Network invited Queensland primary and secondary schools to submit ideas for the 2022 Curiosity Schools Challenge. Applications closed on 30 November 2021.

Curiocities are interactive digital and physical installations that celebrate the intersection of science, technology, engineering, art and math. Mind-blowing temporary outdoor installations that will transform Brisbane into a playground for the public to engage with and be inspired by the intersection of science and art.

Successful schools worked with a professional artist to develop and resolve their ideas. Their ideas came to life – specially built and displayed as part of Curiosity Brisbane at World Science Festival Brisbane 2022. They were even invited to take part in the official opening!

[View the 2022 Curiosity Schools Challenge artworks here.](#)

CURRICULUM LINKS

Classroom teachers should find opportunities to adjust and align learning activities in accordance with the [Australian Curriculum](#) (F-Year 10) and [Senior secondary syllabuses](#) (Years 11-12).



- 1 Acknowledging Place**
Carol McGregor
- 2 Soft-body Adapters**
Kellie O'Dempsey
- 3 CURIOCIITY EcosysTEAMs**
Dalby South State School
- 4 TIMEE22**
Isis District State High School
- 5 Luminous Threads**
Kirsten Baade
- 6 CurioCreatures**
Alinta Krauth and Jason Nelson (EphemerLab)
TRAIL Collect all 15 across South Bank, the Goodwill Bridge and Queen Street Mall
- 7 City Symphony**
QMF and Textile Audio
TRAIL Visit all four sites across South Bank and Brisbane CBD
- 8 Self-talk is our superpower!**
Blackall Range Independent School
- 9 Cooyinnirra in Flames**
Boonah State High School
- 10 93% Human / Breathwork**
Helen Pynor
- 11 Baidam Tithuyil**
Brian Robinson
- 12 In the Air**
Priscilla Bracks & Gavin Sade
(Music: Greg Jenkins and Gavin Sade)
- 13 AmphiSonic**
Panos Couros
- 14 The Wandering Birds Have Returned to the River (Even Bernice)**
Seth Ellis and Michelle Vine
Guest creators Lota State High School
- 15 The Origins of Art I and II**
Maria-Fernanda Cardoso
- 15 DE-CAY-dence**
Donna Davis
- 15 Communing With Robots**
Peter Thiedeke
- 16 Sounding Tides**
Erik Griswold and Rebecca Cunningham
- 17 OHCE/ECHO**
Georgie Pinn
Guest creators MacGregor State High School
- 18 MIRAGE PROJECT [iceberg]**
David Burrows and Australian Antarctic Program
TRAIL Visit all 10 locations throughout Streets Beach

Wednesday 9 – Sunday 13 March

- 19 Dinosaur Discovery**
Presented with Brisbane Urban Environmental Education Centre
- 19 Reef Creature Coding Challenge**
Presented with Great Barrier Reef Marine Park Authority
- 20 Protect Our Coral Reefs**
Presented with CoralWatch
- 21 Stellar STEM**
Presented with PFi Aerospace
- 21 Coding with CodeMonkey**
Presented with Junior Engineers
- 21 Energy in Motion – STELR Program**
Presented with Australian Academy of Technological Sciences and Engineering

Saturday 12 – Sunday 13 March

- 24 It's Rocket Science**
Presented with It's Rocket Science
- 24 Stargazing**
Presented with Brisbane Astronomical Society
- 25 Marble Run Madness**
Presented with Make & Meld
- 26 ImmunoKru: A Cancer Art Gallery Exclusive**
Presented with Excite Science
- 26 Butterflies, Bees and Other Insects**
Presented with Butterfly & Other Invertebrates Club Inc.
- 26 Fungi Count**
Presented with FungiMap and QuestaGame
- 26 Addiction Neuroscience and Obesity**
Presented with Translational Research Institute
- 26 Science for Citizens**
Presented with Australian Citizen Science Association
- 26 Radiation Exploration**
Presented with Queensland branch of the Australasian Radiation Protection Society
- 26 Beneath the Streets**
Presented with Urban Utilities
- 27 Race to Escape**
Presented with Robogals Brisbane
- 27 The Young Entrepreneurs Hub**
Presented with BOP Industries

- 21 Science of Tunnelling and Future Brisbane**
Presented with Cross River Rail Delivery Authority
- 22 Design and Fly a Virtual Aircraft**
Presented with Cool Aeronautics Australia
- 22 Professor Tech's Awesome Introduction to Extended Reality**
Presented with The Create Lab by Professor Tech
- 23 Micromelon Robotics Automation Challenge**
Presented with Micromelon Robotics
- 23 Innovation in Science Ideation**
Presented with Australian School of Entrepreneurship
- 23 Become a Young Scientist**
Presented with The University of Queensland

- 27 Achieving a Circular Economy**
Presented with Steam Powered Kids
- 27 Augmented Reality Games**
Presented with Ardacious
- 27 Robotics**
Presented with Young Engineers Brisbane North
- 27 Catchment Curiosities**
Presented with Brisbane Catchments Network
- 27 The Science of Movement**
Presented with Australian Catholic University
- 27 Finding Ink the Famous Octopus!**
Presented with Plastic Oceans Australasia
- 27 The Future of Health**
Presented with QIMR Berghofer
- 28 Get Buried!**
Presented with LUSY
- 28 Soil: Life's Foundation**
Presented with Soil Science Australia, Queensland Branch
- 28 Understanding Earth Science**
Presented with Geological Society of Australia
- 28 Building Sustainable and Biodiverse Gardens**
Presented with Natura Pacific Pty Ltd

- i1 Information Tent**
- i2 Information Tent**
- i3 Information Tent**

LEARNING OBJECTIVES

Students are learning:

- to explore and experiment with various art media and STEM ideas
- how artists use approaches and processes to communicate meaning
- how artists respond to STEM ideas
- how their own and others' viewpoints are represented within artworks

SUCCESS CRITERIA

Students will be successful when they can:

- interpret and use elements and principles of art to communicate STEM ideas
- use and select media, technologies and skills to represent STEM ideas
- discuss the purpose of artworks and the use of STEM and visual arts elements, using vocabulary to label, categorise, describe and explain
- reflect on how subject matter is represented to make meaning.

SUGGESTED PROCESS

1. PURPOSE

- What essential learning should take place? You could observe skills and interests of students as they engage with World Science Festival Brisbane 2022.
- How should this project align to curriculum? What content and outcomes and which learning areas does the project address? Curiosity projects align well with the Science inquiry skills strand.
- Develop success criteria for the end result, e.g., will the installation be collaborative, community-based, educational, interactive, part of a scientific process, etc.

2. ART VS. SCIENCE

- What concept, theme or idea will link STEM domain/s with visual art? Consider how scientists and science communicators represent ideas and information graphically, as well as [artists who respond to STEM ideas](#).
- How do these connected ideas enrich student learning?

3. PLANNING

- Will you need to adjust the sequencing of your current teaching and learning program?
- Consider the general capabilities when designing learning: literacy, numeracy, information and communication, critical and creative thinking, personal and social capability, ethical understanding, intercultural understanding.

4. TEACHING AND LEARNING

- What learning experiences and activities will develop the required skills and knowledge? Consider using scientific inquiry methods. In a basic inquiry method, students will:
 - o ask a question
 - o form a hypothesis
 - o experiment/test the hypothesis
 - o make and record observations
 - o form a conclusion.

- How can connections between STEM and visual art remain authentic, relevant and explicit?
- What resources, support or assistance are required to complete this project? Queensland Museum has an online collection [learning resources](#) which could be used as stimulus or support. Creating a free account means you can save, sort, manage and share your favourite collection items (audio and video, collection items, events, fact sheets, images, loan kits, etc.).
- How can students work collaboratively and be assessed individually? Which parts of the project will require independent work, and which will require group work?
- How can design intentions be articulated clearly in the form of a project proposal? Consider the development of maquettes or prototypes.

Note: If the school would like to submit a proposal for involvement in World Science Festival Brisbane 2023, this project could cease here.

5. MAKING AND PRESENTING

- What arts materials, technologies and skills are appropriate?
- How can the project be displayed or installed in a safe and appropriate manner to engage the intended audience or invite participation/response?
- What reflections or evaluations should students make once the installation is realised?

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