QUEENSLAND MUSEUM NETWORK PRESENTS World Science Festival Brisbane

IT'S LIVE! in Queensland

TEACHER RESOURCE
YEAR 11
IMAGINED FUTURES

FEATURING

CIRCITY BRISBANE | brisbane ECONOMIC DEVELOPMENT AGENCY BRISBANE CITY COUNCIL

QUEENSLAND MUSEUM NETWORK

Queensland Government

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Cover: Helen Pynor. *Breathwork*. 2021. [detail]. Single channel video, Archival pigment print, lightbox.

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 Curiocity Brisbane 2022. As you engage with these public artworks, what will you discover about science, about yourself, or about the state of the planet?

IMAGINED FUTURES

What do you imagine when you think about the future? The scientific community has been talking about climate change for decades*, but how much of what they say really sinks in? Do you feel personally responsible? Should you?

The critical nature of climate change means artists have joined in too. But while we all know that art has the power to inspire, disgust, challenge or provoke, how can artists be a meaningful part of the conversation? For one thing, artists communicate scientific ideas and concerns in accessible visual language. They make art that makes us feel something. Maybe it will even make us want to act.

How will you engage with ideas about our future and climate concerns, and what visual solutions will you create?

*In fact, the first theories of global warming were proposed in 1896, by a Swedish scientist called Svante Arrhenius

FEATURED ARTWORKS

Helen Pynor. *93% Human / Breathwork*

CURRICULUM LINKS

This resource is aligned with Visual Art General Senior Syllabus 2019 , © State of Queensland (QCAA) 2019, licensed under CC BY 4.0.

1 ***Acknowledging Place***
Carol McGregor

2 ***Soft-body Adapters***
Kellie O'Dempsey

3 ***CURIOCITY EcosysSTEAMs***
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**

KEY INQUIRY QUESTIONS

- Developing — how do artists generate solutions to visual problems?
- Researching — how do artists react to stimulus?
- Reflecting — how do artists consider ideas and information, media techniques and processes?
- Resolving — how do artists communicate individual ideas as visual, written or spoken responses?

SYLLABUS OBJECTIVES

1.	implement ideas and representations to decode artworks and communicate in visual forms
2.	apply literacy skills to communicate understanding of visual language, expression and meaning in the work of self and others
3.	analyse and interpret art practices through the formal and cultural contexts
4.	evaluate art practices, traditions, cultures, and theories to examine how diverse symbol systems are used by artists to communicate meaning
5.	justify viewpoints using evidence of communication in artworks
6.	experiment in response to symbol systems used by artists to communicate meaning
7.	create multiple meaning and representations through knowledge and understanding of materials, techniques, technologies and art processes
8.	realise responses to demonstrate how meaning is communicated through art forms.

LEARNING OBJECTIVES

Students are learning to:

- develop ideas for visual responses that communicate through codes, symbols, visual language and art conventions
- represent subject matter using coded visual language to convey ideas
- reflect on the impact of social influences in the construction of meaning
- understand how artists are influenced by historical and cultural predecessors
- realise ideas in making and responding tasks through the formal and cultural contexts to communicate innovative representations of subject matter.

SUCCESS CRITERIA

Students will be successful when they can:

- experiment with a range of visual responses which demonstrate manipulation of materials and processes to communicate meaning
- decode expressive language in the work of self and others
- analyse and interpret artworks through the formal and cultural contexts
- complete reverse chronology investigations which show the relationships between contemporary art practices and innovations in the art and science communities
- apply literacy skills to evaluate the effectiveness of techniques and processes to communicate ideas
- realise a response which communicates and justifies their ideas and viewpoints.

TEACHING NOTES

TIMING

12 hours

MATERIALS

- student choice of 2-dimensional media and surfaces, digital editing software, 3-dimensional media
- devices and internet connection

HOW TO USE

Students view featured artworks in situ, prior to completing these activities. Activities can be modified for remote learning.

To enrich this experience, Queensland Museum collection items or learning resources may be accessed. 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, learning resources, loan kits, etc.).

LEARNING ACTIVITIES

RESPONDING

Students engage in the inquiry learning process to analyse and interpret visual communication and meaning within Helen Pynor's works, *Breathwork / 93% Human*.

Developing

- What is the central problem or idea that Pynor's artworks attempt to solve?
- How has Pynor used data as a significant form of expression to communicate meaning?

Researching

- Describe Pynor's relationship with the scientific community, and how she has used this to generate a response. What conversations is Pynor emphasising, challenging or provoking? Use language about the **cultural context** when forming a short response.
- Engaging with her body of work, comment on Pynor's diverse art-making approaches. How has she demonstrated considered use of materials, techniques and display? Use language about the formal context when forming a short response.
- Comment on the communicative value of Pynor's choice of art materials and processes.

Reflecting

- What scientific literacy, or knowledge of art conventions and symbols are required in the decoding of this work?
- Who else would have a perspective or viewpoint about Pynor's subject matter, and how might this alter the representation?
- Describe how the dialogue between artist and audience is impacted by the artwork's inclusion at the World Science Festival. How would the work be received in a different context?

Reverse chronology

- Follow a logical pathway to investigate Pynor's influences. A reverse chronology investigation should highlight predecessors in both art and science communities, who have impacted Pynor's practice.

Further research

- Susan Aldworth, Luke Jerram, Ingrid Bachmann, Eugenie Lee, John Wynne.

LEARNING ACTIVITIES

MAKING

Students experiment and resolve artworks in response to Pynor's works.

Developing

- Students test new ideas to formulate a personalised inquiry. They experiment with various materials and approaches. For example, they could:
    - observe and record the act of breathing using colour and line in a series of expressive artworks which demonstrate innovative and unconventional approaches with mark-making
    - develop an audio symbol system to represent personal data (e.g., using information from a pedometer, x-ray or other medical records) and create a soundscape
    - investigate scientific or medical objects or environments to document common colours, textures, patterns (macro) and create a digital collage
    - create a 30-60 second film in response to Pynor's exploration of ambiguous transitional states (*the life-death boundary, the interpersonal nature of organ transplantation, and the animate/inanimate boundary in relation to medical implants*[ii]).
- Students produce brief context statements for each experimental work, to demonstrate understanding and use of the **formal** and **cultural contexts**.
- Consolidating their experimental work, students articulate a personalised inquiry question.

Resolving

- Students refine and resolve an idea (using media of their choice) to extend one experimental artwork into a resolved work.
- Students display their work to enhance their intended meaning and invite audience engagement.

Reflecting

- Students write didactic artist statements which communicate how they:
    - responded to Pynor's (and others') work
    - interpreted their own focus and inquiry question
    - developed and investigated the inquiry question
    - realised a resolved work.

ENDNOTES

[i] Queensland Curriculum & Assessment Authority (QCAA) (2019). Visual art general senior syllabus 2019. Available at: https://www.qcaa.qld.edu.au/senior/senior-subjects/the-arts/visual-art/syllabus

[ii] Pynor, H. (2022). 93% Human / Breathwork. Available at: https://www.worldsciencefestival.com.au/curiocity-brisbane/93-human-breathwork