



# Australians and the Sky

YEAR 5 AND 7  
EARTH AND SPACE SCIENCES



**QGC**

**FUTUREMAKERS**



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Government



# Future Makers

Future Makers is an innovative partnership between Queensland Museum Network and Shell's QGC business aiming to increase awareness and understanding of the value of science, technology, engineering and maths (STEM) education and skills in Queensland.

This partnership aims to engage and inspire people with the wonder of science, and increase the participation and performance of students in STEM-related subjects and careers — creating a highly capable workforce for the future.

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# ENGAGE – EXPLORE – EXPLAIN

## Australians and the Sky

### Teacher Resource

Most people have heard of Stonehenge, however have you heard of Wurdi Youang? Wurdi Youang is an Aboriginal stone arrangement in Victoria that aligns to the setting Sun at the equinox and solstice, while the major axis is aligned almost exactly east-west.

The egg-shaped arrangement of stones, built by the Wathaurong people before European settlement, consists of about 100 basalt stones from 0.2 m to 0.75 m in height. The whole arrangement has been estimated to weigh about 23 tonnes! Statistical tests have shown that this arrangement of stones lining up to significant astronomical events is unlikely to have occurred by chance. Instead they were intentionally aligned with the setting Sun on these significant dates, requiring careful observation and measurement. Wurdi Youang is possibly 5000 years older than Stonehenge; this could make Australian Aboriginal people the world's first astronomers.



Alignment of Wurdi Youang to summer solstice, equinox and winter solstice.  
Image credit: Ray Norris and John Morieson, cc

You may wish to use Wurdi Youang and/or the [Australian Space Agency Brand Animation](#) as stimulus for a research task into Aboriginal astronomy.

Additionally, you can find out more about learning from observation and passing down knowledge by listening to the ABC Podcast, [The science of the Dreamtime](#) by Patrick Nunn on *Conversations with Richard Fidler*.

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## Curriculum Links

### Science

YEAR 5

#### Science Understanding

The Earth is part of a system of planets orbiting around a star (the sun) (ACSSU078)

#### Science as a Human Endeavour

Science involves testing predictions by gathering data and using evidence to develop explanations of events and phenomena and reflects historical and cultural contributions (ACSHE081)

YEAR 7

#### Science Understanding

Predictable phenomena on Earth, including seasons and eclipses, are caused by the relative positions of the sun, Earth and the moon (ACSSU115)

### Science as a Human Endeavour

Science knowledge can develop through collaboration across the disciplines of science and the contributions of people from a range of cultures (ACSHE223)

### General Capabilities

#### Intercultural Understanding

Recognising culture and developing respect

### Cross-Curriculum Priorities

#### Aboriginal and Torres Strait Islander Histories and Cultures

Aboriginal and Torres Strait Islander Peoples have holistic belief systems and are spiritually and intellectually connected to the land, sea, sky and waterways (OI.3)

The significant contributions of Aboriginal Peoples and Torres Strait Islander Peoples in the present and past are acknowledged locally, nationally and globally (OI.9)