

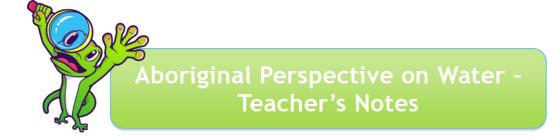
Although Antarctica is the driest continent on Earth, Australia is the driest inhabited continent. About 40-50,000 years ago, towards the end of the last Ice Age, world sea level was lower because rainwater which would have normally run down to the sea was still trapped in great glaciers and ice caps. This allowed people to walk over land now covered by sea.

Researchers believe the first waves of ancestral Aboriginal Peoples arrived from the north about 50,000 - 60,000 years ago, perhaps even earlier. They were able to walk, sail and island hop on rafts southwards to the north coast of Australia. Radiocarbon dating and cultural relicts suggest there were at least two waves of Aboriginal settlement. Genetic evidence suggests that the dingo arrived via South-East Asia between 5,000 and 10,000 years ago, perhaps accompanying migrating people. The longest consistent culture on Earth is of the Australian Indigenous Peoples. (In comparison, Ancient Egyptian civilization only started 3,100 years ago). Once they had arrived on the north coast, some people travelled southward across the continent mostly following the coast where there was best access to fresh water and food. People also followed the great rivers inland.

When their descendants reached the south coast, they were even able to walk across to what is now known as Tasmania. Then the climate warmed, the ice melted, the sea level rose, and Bass Strait became sea again, isolating Tasmania from mainland Australia.

To best manage food sources, they followed seasonal fruits and game movement, living a hunter-gatherer lifestyle. Their semi-nomadic lifestyle was essential so that they did not exhaust any resource, be it food or water. They also travelled in small groups because of limited resources. Children were raised to believe that they had to look after "Country" or "Place" and this continues today as a fundamental part of culture. Indigenous People belong to the Land and are responsible for its maintenance. They are custodians of Air, Water, Living Things and Land.





It is highly recommended that any discussion of Aboriginal and Torres Strait Islander culture is done in consultation with members of the local community to ensure it is culturally appropriate. ACARA recommends: "If a school does not have an Aboriginal or Torres Strait Islander community, the school authority may have an Aboriginal and Torres Strait Islander education team or it may be possible to approach the state-based Indigenous Education Consultative Body (IECB)."

https://www.australiancurriculum.edu.au/media/3739/guiding-principles.pdf

Aboriginal Peoples and Water

Fresh water can be found in rivers, billabongs (ponds remaining in drying rivers), soaks (where rain runs off from a rock to be ponded on clay pans in the soil) and in small hand-extended reservoirs in rock called "gnamma" holes by the Noongar people in Western Australia. Noongar people called the water snake "Waugal" and the snake was believed to have gnawed out

these rock holes. They advise that you should only drink water if it is clear and not when it is murky because the "snake" was still swimming around in it. This 'gnamma' hole near Sandstone has lost its capping rock and has filled in with soil. It still fills with water after rain.



By mostly travelling and hunting in the morning and evening, the amount of





water lost by the body through sweating is reduced. In extreme heat, a hole can be dug in damp sand and burying yourself up to the neck keeps you cooler. In the central deserts, small groves of desert oaks found within the sand dunes sometimes display little holes drilled into their bark. Aboriginal People insert grass "straws" into these holes and suck out tree sap for water. The holes are sealed with mud after use.

The "song lines" by which Aboriginal Peoples remember how to safely navigate their way around their territories often describe pathways from water source to water source. The high frequency of water signs in paintings and carvings indicate the importance of water in Aboriginal culture.

A Sign for Water - Discussion

Aboriginal Peoples use stories as maps of where and when to find water. They left petroglyphs (rock markings) to indicate that water was nearby, and children memorise songs which map routes to water sources in their land.

One of the most common signs for water in petroglyphs (rock pictures) and in paintings is concentric circles as shown in this photograph.

It comes from rocks near a waterhole close to Newman, but similar signs can be found on rocks and in paintings across Australia.







Why do you think Aboriginal people used concentric circles to represent water? If you drop a stone into water, concentric waves are created.

Why didn't they just write a sign saying "WATER "on the stone?

- 1. Aboriginal people did not have a written language, indeed there were many different language groups sharing hunting ranges and visiting water sources at different times. The signs had to be understood by many groups. You may wish to refer to:
 - https://aiatsis.gov.au/explore/map-indigenous-australia
- 2. Although some groups used ochre and made paintings, these had to be under overhanging rock or in caves as they wash off in rain and their colour lost by being exposed to the elements. The rock carving told anyone speaking any language that water was near.
- 3. The petroglyphs were made by scratching through the redder weathered rock on the surface to make lighter lines from the rock below. Carving into rock is very difficult and time consuming. Their creation and maintenance over thousands of years is an indication of their importance.

Petroglyph Design - Student Activity

Unlike writing with pencil and paper, petroglyphs cannot be rubbed out and changed if mistakes are made. Students are asked to design their own icon for water and model it in flour. It is important to note that some Aboriginal cultural practices do not allow the depiction of certain things such as people in petroglyphs so check local knowledge if possible.

Materials

- Petri dishes, saucers, yoghurt pot lids or other flat dishes
- Flour or sand
- Spoon
- Pencil



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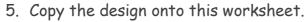


- Newspaper
- Coloured pencils or pens

Method

- 1. Cover the desk with a piece of newspaper.
- 2. Place a thin layer of sand or flour on the bottom of the dish and smooth it flat with the back of the spoon.
- 3. Cut your design into the flour or sand with a pencil or spoon handle.







Draw your sign for water below and explain why you chose it.

WATER
Why I chose it
With I chose ii





Way to Water - Extension









Students may wish to create a dot painting indicating the route from their desk to the nearest drinking fountain. Icons for footsteps and landmarks would have to be selected.

Materials

- Paper
- Acrylic paint in jam jar lids
- Blunt brushes or the ends of pencils. Plastic drinking straws make excellent dots if recharged frequently.

