



The Sun and Moon– some Aboriginal perspectives and activities

Dreaming stories

There are many Aboriginal Dreaming stories about the sun and moon. **Research** some in Jennifer Isaac's book *Australian Dreaming: 40,000 years of Australian history*, Ure Smith Press, Willoughby NSW 1991. **Mark on a map** of Australia where particular stories come from, which language group is linked to the story and the storyteller's name if possible.

Analyse the stories to find out what it teaches about the sun or about how people should behave.

A Dreaming story from north west Victoria about the Sun

The **Boorong** of north west Victoria believe the *Pupperrimbul*, the little bird with the red patch above the tail, made *Gnowee*, the Sun, by throwing a prepared emu egg into space. Before this the earth was in darkness. Others say that the egg was prepared by *Berm-berm-gle*, two large stars in Centaurus who represent brothers and the egg was carried into space by *Penmen*, a different small bird.

The little bird with the red patch is probably one of two varieties of firetail finch. **Research** firetail finches in a book about Australian birds.

If the *Pupperrimbul* were to be killed there would be a fearful fall of rain. The Pupperrimbul and other creatures are spiritual representations on earth of old spirits.¹

House design which takes advantage of the sun

Aboriginal people's traditional shelters in southern Australia often opened to allow the sun in and prevent the cold wind from the south entering. **Make a model** of a shelter using interlocking twigs and leaves. Monitor it to make sure the sun enters it during the day.

Older students could experiment to make a model of a future house which takes advantage of the path of the sun, ie allowing direct sun in during the winter but not in mid-summer.

Using models to learn about seasonal changes in the path of the sun

Have students stand and **face north and raise their west hand**. They may need a while to work this out. Give them clues linked to local topography, eg the Mt Lofty Ranges are to your east and the coastline is to the west.

Students will probably copy a leader. If they are unsure, give them clues such as which side of the bus or car the sun shines through in the morning or afternoon to work out east or west.

¹ Stanbridge, Wm. Edward, *On the Astronomy and Mythology of the Aborigines of Victoria*, Proceedings of the Philosophical Institute, Melbourne, 30th September 1857.

Explain to students that an Aboriginal baby born in the middle of Australia until recently (and maybe even now) would learn these directions possibly before learning to talk and walk as a survival skill necessary in adulthood.

Make a large cardboard sun (approx. 45cm diameter) and attach it to a stick approx. 1.5m.

Students can volunteer or be asked to **carry the 'sun' across the 'classroom' sky** showing direction of apparent travel and to show the seasonal changes.

Start with the sun showing that it is almost overhead at midday in summer but closer to 45 degrees in mid-winter. In mid summer it rises well south of east and sets well south of west. In mid winter it rises north of east and sets north of west.

Use a globe and a torch, to represent the sun, to show how the sun rises south of east and sets south of west. The person with the torch will need to stand still while the person with the globe can very slowly turn it to show sunrise and sunset as it affects Australia. Children could do this in pairs using a map of Australia on a balloon to represent the earth.

Track the Sun's shadows through the day

Use chalk to mark the sun's shadow at regular intervals eg every hour, from a particular point, eg netball goal post. To show seasonal changes, Mark the length and angles of the shadow with more permanent paint.

Talk about how this information can be used for tree planting so that shade can be created for particular purposes.

The moon

In traditional Aboriginal stories, the Moon is sometimes male and sometimes female, depending on stories of different Aboriginal groups.

How Moon was created - an Adnyamathanha story

An Adnyamathanha Dreaming story from the northern Flinders Ranges describes how the Moon was created by a greedy nephew who kept stealing his uncle's food. Every time the uncle hunted a kangaroo he would bring it to the camp, prepare it and cook it in a ground oven with hot coals.

The nephew would steal the cooked kangaroo as his uncle slept. He was punished by his uncle who made him climb a tall tree which was then cut down, leaving his now very fat round nephew in the sky in the form of the moon.

In another version of the story published in *Flinders Ranges Dreaming* by Dorothy Tunbridge, Aboriginal Studies Press, ACT 1988, the greedy nephews send their uncle to stay in the sky so they can marry his wives.

The moon as the native cat

The **Boorong** people of north west Victoria saw *Mityan*, the Moon as representing the quoll or native cat which has full moon, half moon and crescent moon shapes on its fur coat. *Mityan* was beaten after trying to entice someone else's wife to run away with him and he has been wandering ever since. The quoll probably hunts at night most effectively on a full moon, just as other cats do. ²

² Stanbridge, Wm. Edward, *On the Astronomy and Mythology of the Aborigines of Victoria*, Proceedings of the Philosophical Institute, Melbourne, 30th September 1857.

The moon man who chases the young women

In several versions of Aboriginal 'seven sisters' stories, they are chased by the Moon man. When the moon is full, Pleiades, which represents the sisters, are said to be hiding so they cannot be seen.

Full moon - ceremony time

Ceremonies involving large groups of people, storytelling, song and dance were often held at the time of the full moon. This would have the advantage of maximum night light available but also, a higher chance of calm weather.

It would also provide a calendar date to help participants plan. Disputes would regularly be dealt with first and then the ceremony would begin and often continue all night.

People who observe weather patterns find that the night of the full moon is generally calm.

Students could monitor the weather on the nights of the full moon to check if it is usually fine and calm and if so find out why it might be.

Weather prediction based on the moon in western New South Wales

Evelyn Crawford '... learnt to read the weather signs from the moon. A big ring around the moon meant a big rain, a little line was just a little bit. ... Sometimes the moon isn't right in the middle of the ring, but to one side or the other. That means there's wind coming. It takes a lot of explaining to understand it right. You gotta live a lot of years in the bush for that ...'. (from Crawford, Evelyn, *Over my tracks*, Penguin 1993).

Link between the moon and tides

The Bardi people living at One Arm Point on the tip of the Dampier Peninsula north of Broome in the Kimberleys, Western Australia, use their extensive knowledge of the moon and tides to time activities such as the collection of valuable trochus shells and other fishing pursuits.

Spring tidal movement can be up to ten metres so it is extremely important to be aware of them. Older members of the community have talked about using the stars to navigate when travelling by boats made from mangrove trunks. The boats are made from two layers of mangrove trunks stuck together by pegs. Parts of the boats, at least, often sat below water.

Navigational expertise was used in concert with knowledge of the tides since tides moved so rapidly at times, there is no way they could be paddled against.

The community assume that everyone has (and only outsiders don't have) a mental map of the area they move in thus directions consist for example of two bends/ two hills away. (Gillham, Jeff, personal communication 1997).

Fishing for Murray River Cod and the moon

Barney Lindsay, a Ngarrindjeri man living in South Australia's Riverland says "We used to go fishing for Murray Cod on a full moon."

Fish often rise to the surface to feed during a full moon. At other times when groups of Aboriginal people fished on the River Murray, they would light fires on their canoes with sandalwood, a wood which provides a pleasant aroma, little smoke and a bright light which attracts the fish to the surface.

Find out which cycle of the moon is taken into account by people wanting to catch particular fish.

According to Berndt's Ngarrindjeri informants the best season to fish for cod was Spring to Autumn (p. 562 in Berndt, R & C, *A world that was: the Yarlalde of the Murray River and the Lakes*, South Australia, Melbourne University Press, Carlton Vic 1993).

Otchocut, the Murray cod

The Murray Cod is known as *Otchocut* by the Boorong people and is represented in the sky by the *Delphinus* (the dolphin) constellation. *Gamma Delphinus* is golden and yellow-white, the same colours as the flanks of the Murray cod.³

The disappearance of the *Otchocut* constellation from the sky after September to October coincides with the end of the spawning season for the Murray cod. When *Otchocut* is in the sky, you should not fish for Murray Cod because they are breeding.

Both mallee fowl and Murray cod have become relatively endangered species in the last 50 years, rarely eaten by Aboriginal people because they want to protect them. **Make a list** of the factors which have contributed to their becoming endangered and strategies in place to help their survival.

The Moon in the daytime

When you're outside in the daytime, **have a look** to see if you can see the Moon. Watch where it is every half hour or so and try to work out its path through the sky. **Make and use models** to show and compare the paths of the Sun and the Moon through the sky.

For more information

To find out more about **Astronomy and Australian Indigenous people**, contact Pring.Adele@saugov.sa.gov.au

³Stanbridge, Wm. Edward, On the Astronomy and Mythology of the Aborigines of Victoria, Proceedings of the Philosophical Institute, Melbourne, 30th September 1857.