Emu in the Sky – Student Activity

Aboriginal Astronomy

In Australia, the Aboriginal and Torres Strait Islander people are recognised as the first astronomers. Among other things, they use their knowledge of the night sky for food gathering and navigation purposes. However, instead of focusing on the position of the stars to form the constellations, Aboriginal astronomy focuses on the whole of the sky, including the dark patches between the stars. They see the connections between the sky and the land, viewing them as one entity (Steffens, M. 2009).

Activity 1. An introduction to the Emu in the Sky constellation

Each language group has its own cultural stories that speak of their local environment. The Emu in the Sky is one story that is familiar to many Aboriginal communities across Australia and relates to a particular constellation. As shown in our video the Emu in the Sky, the shape of the emu is formed from the dark patches in the Milky Way and almost stretches across the whole sky.

Read one of the stories of the Emu in the Sky in Star Stories of the Dreaming, compiled by the Kamilaroi, Euahlayi People and their neighbours, Murrawarri, Ngemba. These First Nations People are located in north central and northwest NSW, however the story repeats for many language groups across Australia.

Listen to the story of The Emu in the Sky, as told by Ben Flick, an Aboriginal man from the Kamilaroi language group of north-western New South Wales.

Kirsten Banks, Australian astrophysicist, science communicator and proud Wiradjuri Woman, discusses her experience of The Emu and how it inspired her to learn more about Aboriginal astronomy.

The Emu in the Sky orientation

The image on the next page is of the night sky in July. Can you see the Emu in the Sky constellation? Trace over the shape of the emu, remembering that the dark spaces are important in forming the shape of the emu.

The Emu in the Sky (photo courtesy of Dr John Goldsmith/celestialvisions.com.au)

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With the movement of the Earth, the position of the Emu in the Sky changes throughout the night and through the year. Locate images of the Milky Way in April, July, November and January. Trace the emu over each of these images. Australian Indigenous Astronomy has an excellent blogspot describing this phenomenon.

Note what you observe about the visibility and orientation and of the Emu at each of these times of the year.

MONTHS	VISIBILITY	ORIENTATION

Why is the Emu not visible at certain times of the year? Discuss in relation to the movement of the Earth throughout the year. You can use a diagram to assist with your explanation.

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Activity 2. The emu on the land

Aboriginal peoples relate the position of the Emu in the Sky to the breeding behaviour of the emu on the land. From the position of the emu, Aboriginal people know when it is time to harvest the emu eggs for food.

Research the lifecycle of the emu on the land and present it as an infographic or a poster. Include the month that each stage occurs. Birdlife Australia has some great information or visit Perth Zoo to assist with your research.

Review your images of the change in visibility and orientation of the emu in the sky. Place these alongside the stages in the lifecycle of the emu.

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What do you note about the position of the emu in the sky and the lifecycle of the emu on the land?

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Add these notes to your infographic.

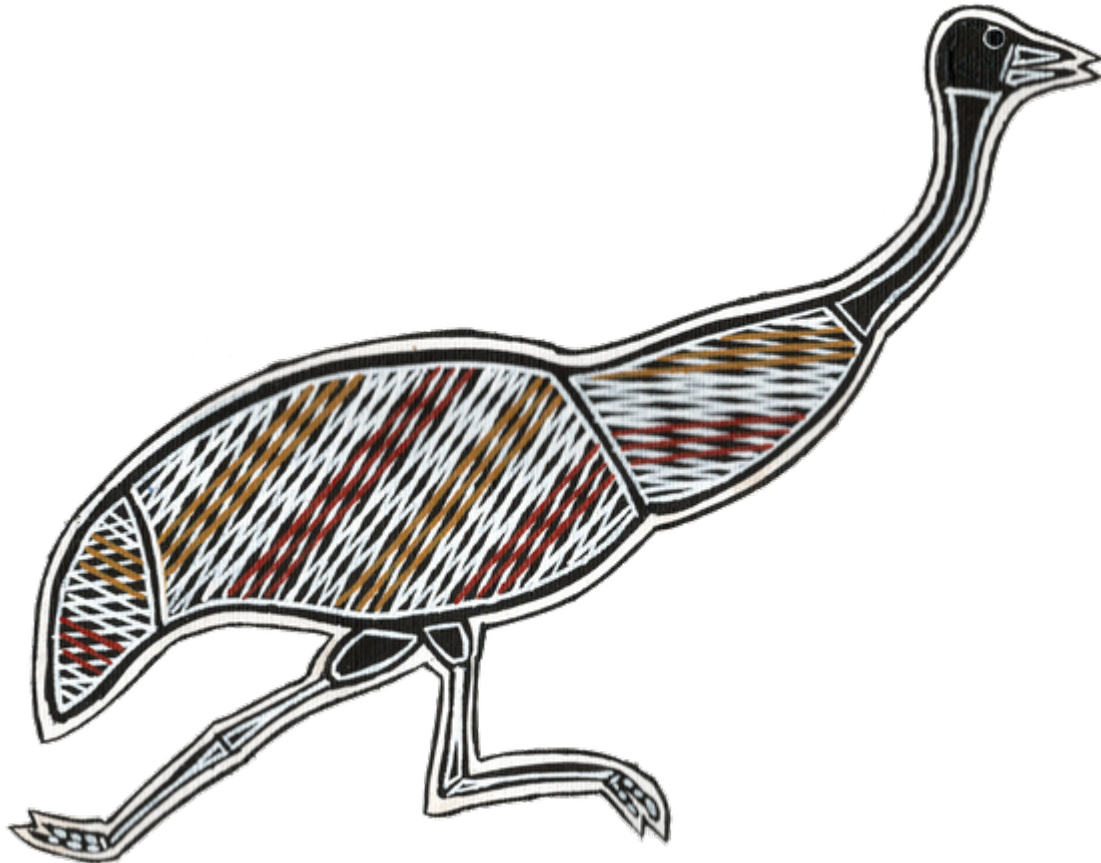Why would this observation be important to Aboriginal peoples locating emu eggs for food?

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Activity 3. Presenting the link between the emu in the sky and the emu on the land.

The Aboriginal and Torres Strait Islander people use stories and art to share important cultural information. Below is an artistic representation of an emu.

Image Kakadu Tiny Tots (sourced from Canva, via license)

Create a picture of the Emu in the Sky, linking it to the activities of the emu on the land that you could use to tell a friend that it is a good time to collect emu eggs. Where possible, use colours and materials sourced from your local environment to create your image.