

# The Eta Aquarid Meteor Shower

(peak, 5<sup>th</sup> - 6<sup>th</sup> May)

## What are meteors and comets?

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WHAT'S IN  
THE NIGHT  
SKY?

Bonus Material



**Comets** are frozen balls of rock, gas and dust; sometimes called 'cosmic snowballs'. They orbit the Sun but their orbit is elongated – meaning they are closer to the Sun on one side of their orbit than the other. When they get close to the Sun they heat up and start to melt, leaving a long trail of gas and debris behind them.

**Meteors** are rocks or debris from space which enter the Earth's atmosphere. When they are travelling through space, there is no air around them so no air resistance to slow them down. When they fall towards Earth they are slowed down by air resistance and this friction heats up the meteor, causing it to burn up. We see this as a bright streak across the sky which we sometimes call a shooting star.

## What is the Eta Aquarid meteor shower?

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The Eta Aquarids meteor shower occurs once a year, peaking in early May. They occur when the Earth moves through the debris trail of **Halley's comet**. Halley's comet itself only actually comes close enough to the Earth for us to see it once every 76 years (it will next be visible on the 28<sup>th</sup> July 2061) but the debris it leaves behind is responsible for two meteor showers each year – the Eta Aquarids in May and the Orionids in October. The meteors in the Eta Aquarid meteor shower will appear in the sky near the constellation Aquarius.

Watch the video here: [youtu.be/seGDXbhZkoA](https://youtu.be/seGDXbhZkoA)

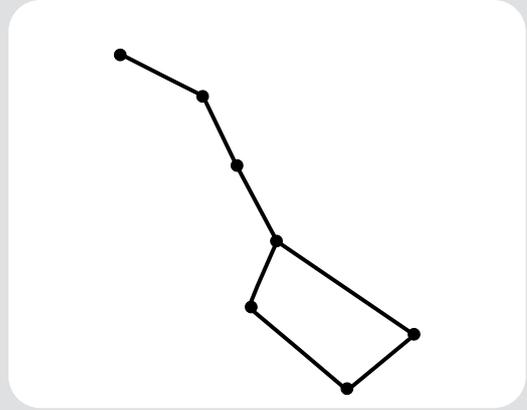
# Using the Big Dipper to find Arcturus and Boötes

The star, Arcturus, is one of the brightest in the Northern sky and it has been used throughout history to help humans navigate the Earth. It has been known by many different

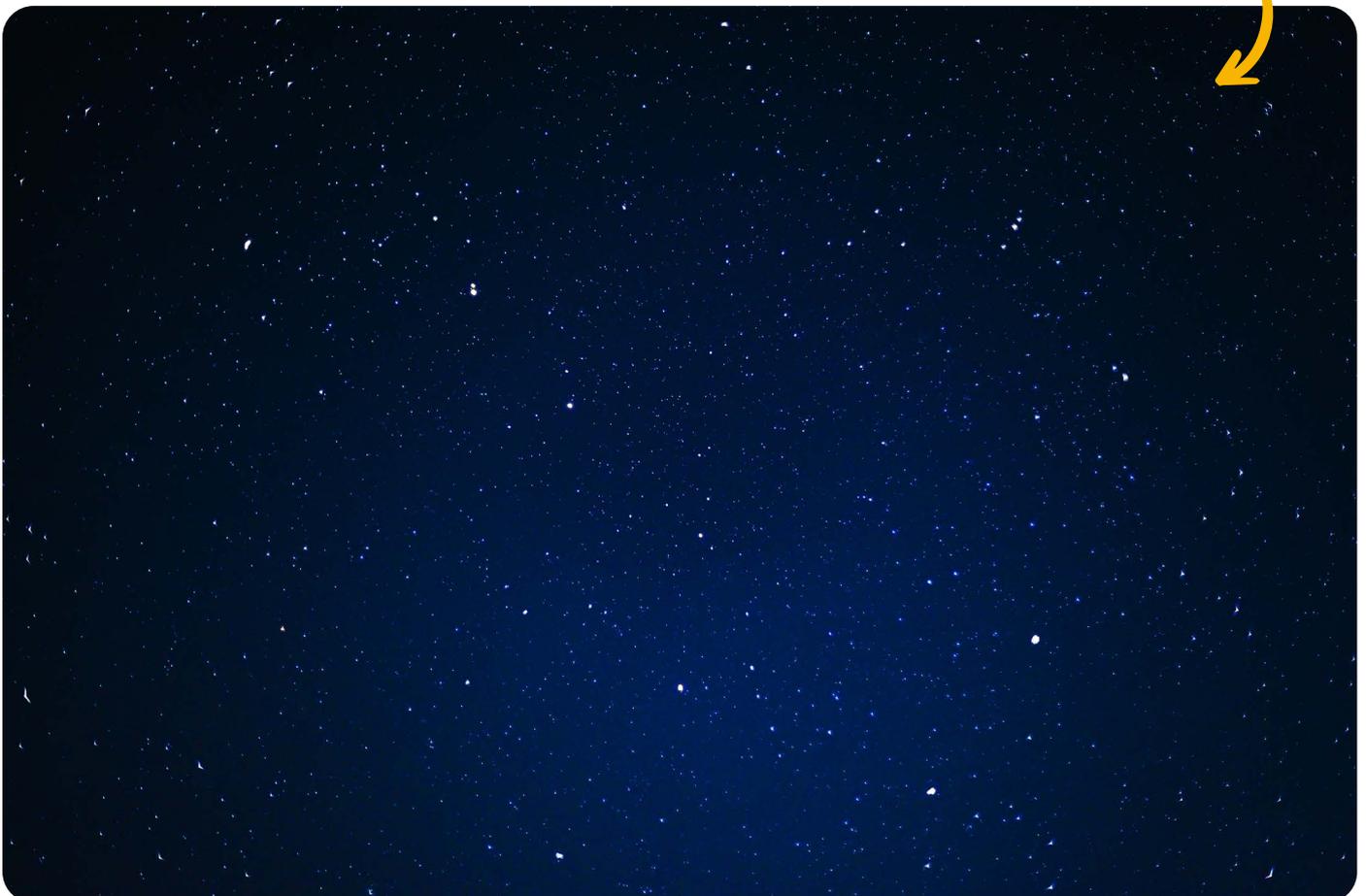
names in different cultures, including Hōkūleʻa by prehistoric Polynesian navigators.

One of the easiest star patterns to find in the Northern hemisphere is the Plough (aka, the

## Big Dipper (plough/sosban)

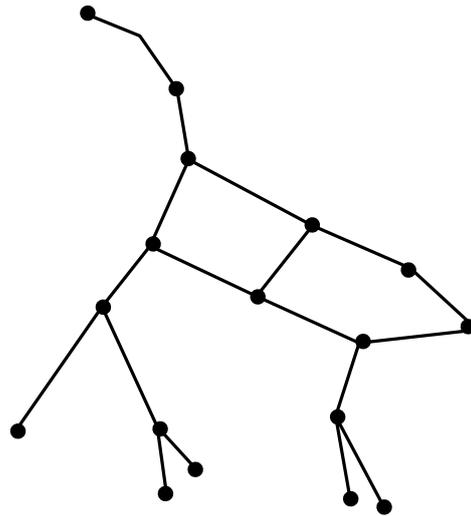


Can you find the Big Dipper in this image of the sky?



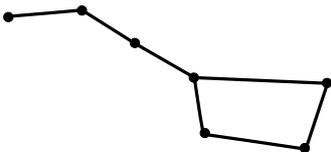
## Ursa Major (Big Bear)

The Big Dipper is not an official constellation – it is an asterism, but it is actually part of a larger constellation called Ursa Major, or the Big Bear.



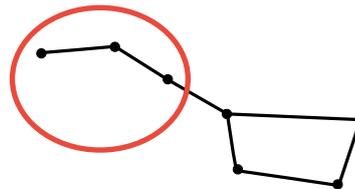
## To find Arcturus:

1



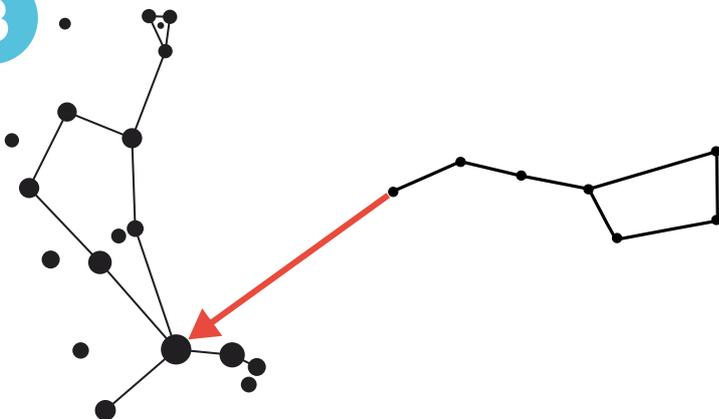
Find the Big Dipper. This asterism is made of 7 stars in a saucerpan shape.

2



Locate the arc of the handle, which extends from the main 'pan'.

3



Extend this in a straight line to the next bright star. This is Arcturus! It is at the base of the 'diamond' or 'kite' shape which makes up the main part of the Boötes constellation.



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