

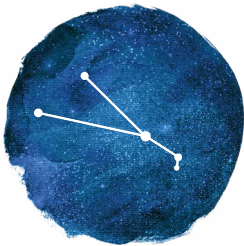
# WHAT'S IN THE NIGHT SKY?

Bonus Material

## What is a constellation?

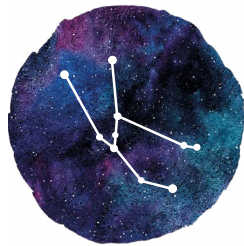
A constellation is an imaginary picture that a group of stars make in the sky. The constellations each have different names and can be people, animals, and all kinds of other things.

Probably the best-known constellations in the sky are the star signs, which are the constellations in the Zodiac. These are shown below - the white dots are the stars.



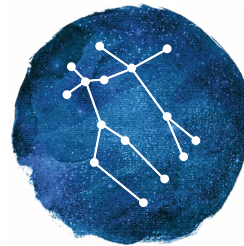
**Aries**

21 Mar - 20 Apr



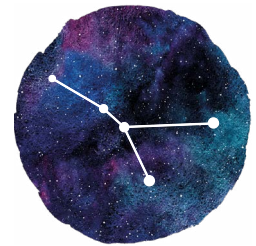
**Taurus**

21 Apr - 21 May



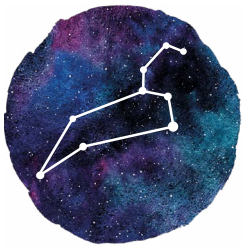
**Gemini**

22 May - 21 June



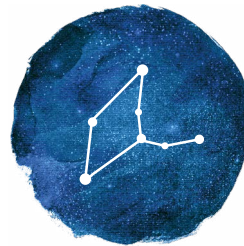
**Cancer**

22 June - 22 July



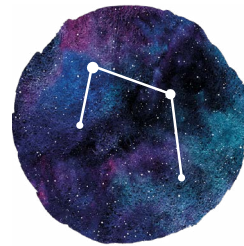
**Leo**

23 July - 23 Aug



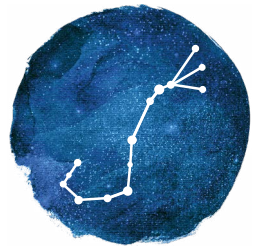
**Virgo**

24 Aug - 22 Sept



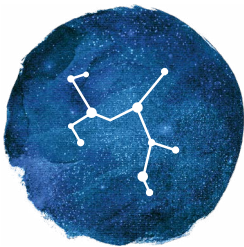
**Libra**

23 Sept - 23 Oct



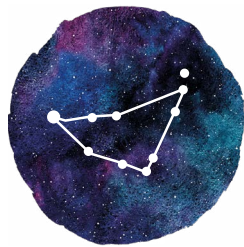
**Scorpio**

24 Oct - 22 Nov



**Sagittarius**

23 Nov - 21 Dec



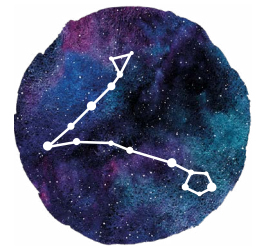
**Capricorn**

22 Dec - 20 Jan



**Aquarius**

21 Jan - 18 Feb



**Pisces**

19 Feb - 20 Mar

The constellations that we see in the sky change throughout the year as the Earth moves around the Sun. The night sky looks different in Spring than in Winter. The Zodiac is the area (ring) of sky that the Sun appears to move through throughout the year. The 12 signs of the Zodiac are the constellations in this area. The dates assigned to each sign of the Zodiac (or star sign) are roughly the dates that the Sun will appear to be in front of that constellation.

**Watch video here:**

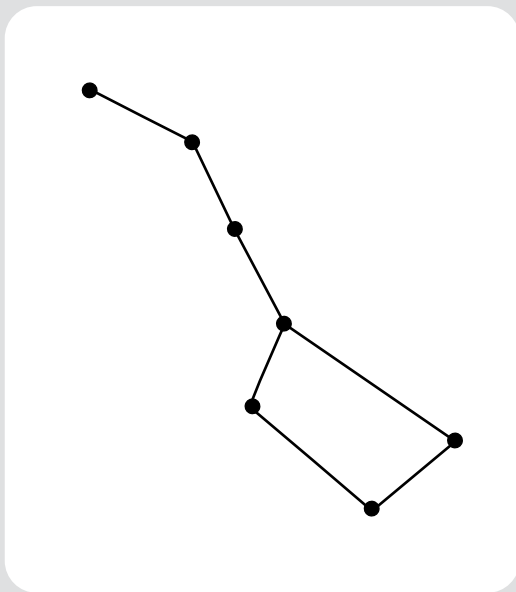
[youtu.be/Oe3htlfQ-mU](https://youtu.be/Oe3htlfQ-mU)

# USING STARS TO FIND THE NORTH

All of the stars appear to move across the sky throughout the night (this is an optical illusion caused by the rotation of the Earth), except the star called Polaris – the North star. This is because the North star is directly above the North pole, which does not move as the Earth rotates. The North star is NOT the brightest star in the night sky (that is Sirius).

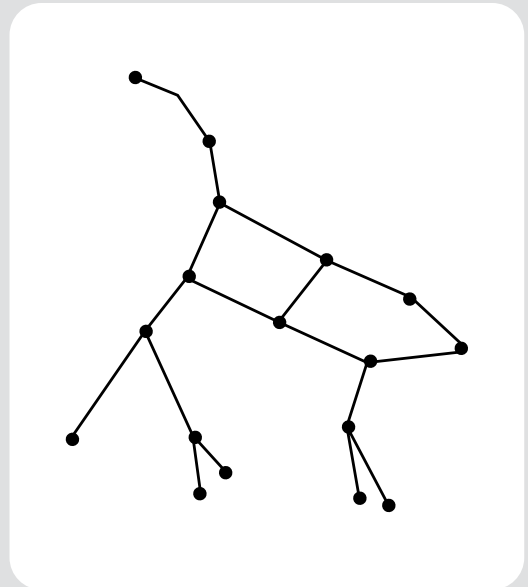
One of the easiest star patterns to find in the Northern Hemisphere is the Plough (aka, the Big Dipper in America, and Sosban in Welsh).

## Big dipper (plough/sosban)



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

## Ursa Major (great bear)

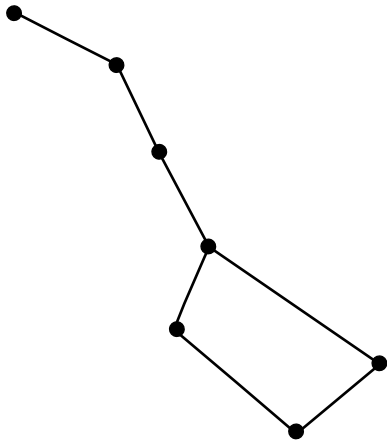


## Activity

# HOW TO FIND THE NORTH STAR

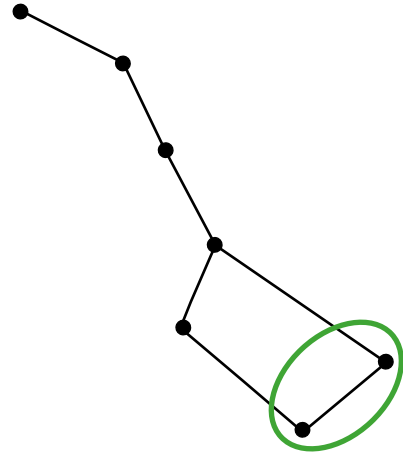
## ACTIVITY SHEET

1



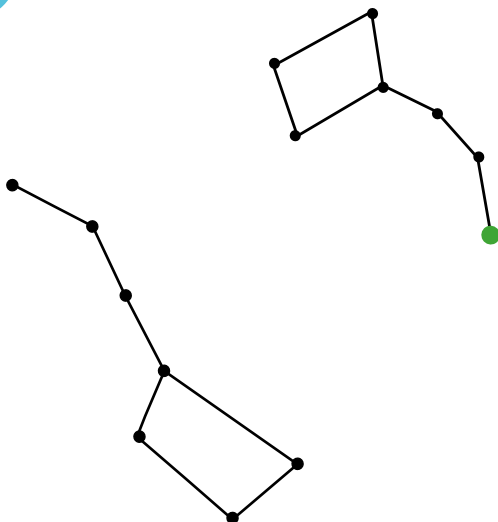
Find the Big Dipper. This asterism is made of 7 stars in a saucepan shape.

2



Locate the far side of the saucepan – opposite to the handle. The two stars that make up this side – Dubhi (dub-ee) and Merak (meer-ack). These are the pointer stars, because they point to the North star.

3

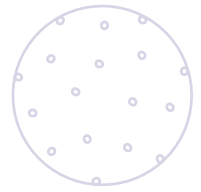


Follow the pointer stars in a straight line to the next bright star. This is the North star! It is on the handle of the Little Dipper constellation (aka Ursa Minor, Little Bear, Sosban Fach). If you face the North star, you are facing North.

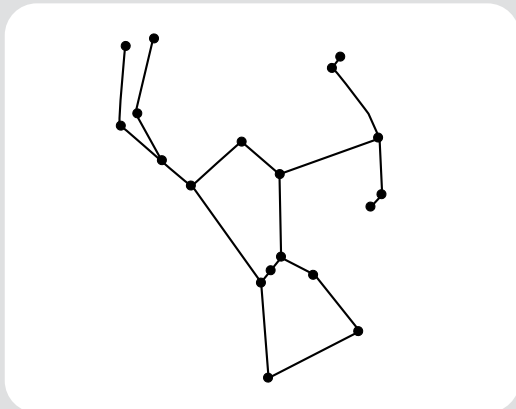
# CONSTELLATION STORIES

Different cultures have created different constellations and stories, but in the Western world, we mostly use those from Ancient Greece and Rome. Here are some of the more common ones:

**Orion the hunter, Canis major, Taurus and Scorpio**

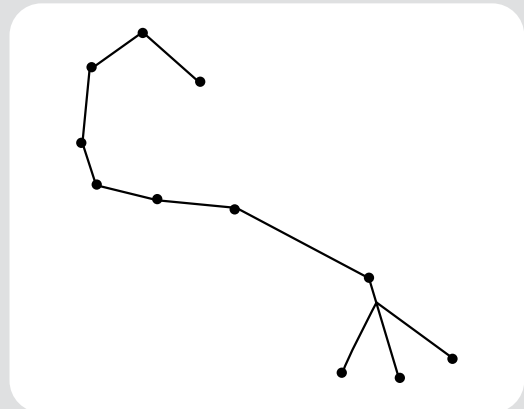


## Orion (the hunter)



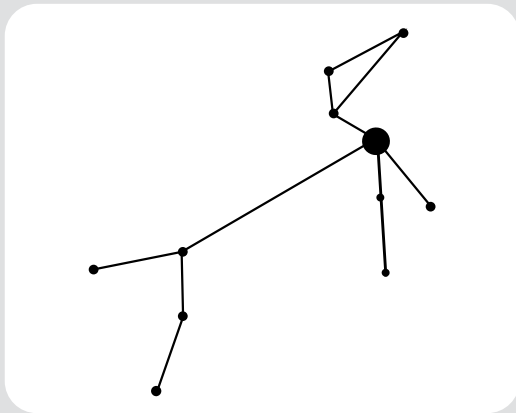
The story of Orion comes from ancient Greek mythology. He was a hunter, but he was also very arrogant and boastful. The goddess Artemis, who was also a skilled hunter, fell in love with him. Her twin brother, Apollo, didn't like Orion, because he was vain and arrogant. Orion tried to show off to Artemis by telling her that he could rid the Earth of all the wild animals. This angered the Earth goddess, Gaia, who sent a scorpion (Scorpio) to defeat him. Orion tried to battle the scorpion, but he quickly realised that he could not shoot his arrow through the creature's armour.

## Scorpio (the scorpion)



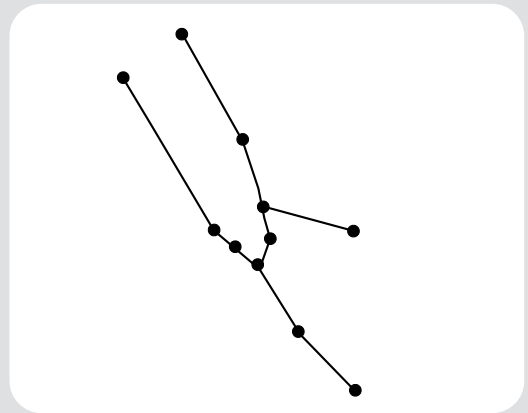
To avoid the scorpion, he jumped into the sea. Apollo saw his chance to get rid of Orion. He pointed out a small black object in the sea to Artemis. Claiming it was a horrible villain, he dared her to shoot it with her bow and arrow. Artemis easily hit the target. When she found out it was Orion, she was devastated. Artemis begged the gods to bring Orion back to life, but they refused, because of his reputation. So, instead, she put Orion's picture in the sky so that she could always see him.

## Canis Major (the big dog)



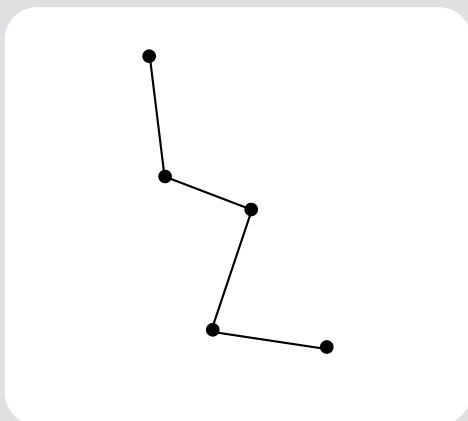
By Orion's feet is his hunting dog, Canis Major (meaning 'great' dog). The star on the great dog's chest is Sirius, the brightest star in the night sky.

## Taurus (the bull)



Orion is shown facing Taurus, the bull. As a hunter, he is always trying to fight the bull. Within Taurus, we have the Pleiades, also known as the seven sisters. They were seven daughters of the gods, who were known for their beauty. Orion is portrayed showing off to them.

## Cassiopeia (the queen)



In Greek mythology, Cassiopeia was an Ethiopian queen who boasted about her own beauty. When she claimed to be more beautiful than the sea nymphs, the sea god Poseidon sent a monster to destroy her kingdom. Cassiopeia tried to make peace with the monster by offering her daughter, Andromeda, as a sacrifice – tying her to a rock by the sea. Andromeda was saved by the hero Perseus. Poseidon punished Cassiopeia by chaining her to a throne in the sky forever.



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