

Stargazing

We asked our friends at the Royal Astronomical Society for some facts about the night sky to help you on your stargazing journey. There's a whole world of wonders right above our heads – so look up and start exploring!

What are stars?

Stars are spheres of gas that let off heat and light. The closest star to Earth is the Sun.

What are constellations and how did they get their names?

These are groups of stars that make patterns in the sky. They are named after objects, animals and mythological characters. There are over 88 recognised constellations!

Why does the night sky look different every evening?

The sky is always changing – the stars you see change throughout the night as the Earth rotates. The stars you see also change throughout the seasons as the Earth orbits the Sun and we move to a different position in space.

Why can some people see stars and others can't?

Some people might live in an area that has a lot of light pollution which affects how you see the night sky. It can also take at least 20 minutes for your eyes to adjust to the sky, so what you can see above will be dependent on how many other light sources you have near you.

What do I need for stargazing?

All you really need for stargazing is to look up to the night sky! But, you might want to take some things to help you too. Binoculars or a telescope will help you see things further away. A compass will help you know which direction you're facing. There are also lots of amazing apps you can download to help navigate the night sky.

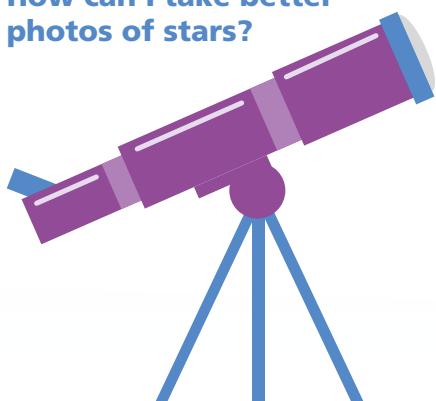
Where's the best place to stargaze?

Anywhere! You could be at home looking out of your window, in a local park or away on camp. Stargazing is all about taking the time to enjoy the night sky. However, the places where you'll see the most stars are those that are furthest away from any light pollution. National parks are a great place to start as a lot of them are known for their dark skies!

How can I take better photos of stars?

Our three top tips are:

- 1 Use a long exposure app, or slow down the shutter speed of your camera. This will allow more light to come in.
- 2 Use a stand or tripod, if you have one, to keep your camera still. This will stop your photos being blurry.
- 3 Turn off the flash. This will make your camera focus on the light from the stars and not things nearby.



Constellations

We've picked four of our favourite constellations. Can you find them all in the night-sky? Keep searching, the stars are out there waiting for you to explore!

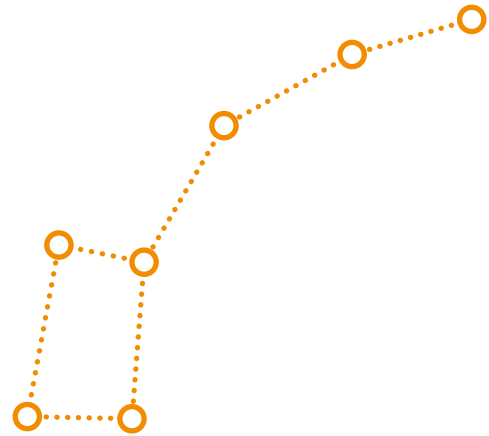
Ursa Major



Did you know: The Ursa Major is the largest northern constellation, and third largest constellation in the sky. It is called the great bear because of its polar bear like shape.

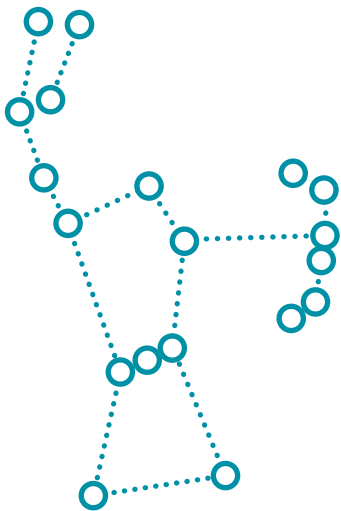
A section, or asterism, of Ursa Major, is called the Plough or **the Big Dipper**, and is one of the most recognisable shapes in the sky.

Ursa Minor



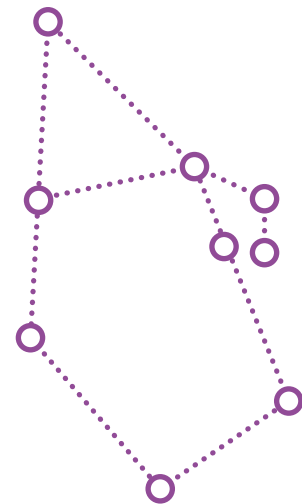
Did you know: Ursa Minor constellation is home to the North Pole star, Polaris – which helps people find their way north. It's name comes from the smaller bear, or lesser bear in Latin and is sometimes called **the Little Dipper**.

Orion



Did you know: Orion is the 26th largest constellation in the night sky. It is one of the easiest to spot as it is one of the brightest. It lies on the equator, and therefore can be seen by everyone across the world!

Auriga



Did you know: This constellation is shaped like a pentagon. It's brightest star is known as Capella, which is actually a group of four stars. Auriga is most clearly seen in the winter evenings for people living in the Northern Hemisphere.

We created these fun resources with our friends at the **Royal Astronomical Society**. If you're inspired to find out more about our night sky, check out their website for lots of fun information and resources: ras.ac.uk