

Here, in the UK, we suffer from a lot of light pollution, this is the light we get from streetlights, cars, shops and houses that causes the glow in the sky that makes it harder to see beyond our atmosphere. Don't let that put you off though, there are things you can do to help you see more.

## Tips for observing the sky at night

1. Go somewhere dark. It sounds silly, but you need to leave your house to properly see the sky. You can go to the bottom of your garden (turn house lights off if possible), maybe a local park, or you can take a trip as a family to one of the many Dark Sky Discovery sites.
2. Choose a clear night. If it is too cloudy, you will not see anything at all. Patchy cloud is OK as the clouds move quickly and you'll still be able to see something.
3. Give your eyes time to adjust! It takes about 20 minutes for our eyes to fully adjust to the dark. So don't give up immediately if you don't see anything. Things will become clearer.
4. Don't look at any lights. This includes going back inside the house, phones, illuminated watches, tablets etc. Your eyes will take longer to adjust to the dark if you keep looking at things with lights.
5. Sit or lie down. It's much more comfortable to be sitting or lying down and you won't get neck ache!

## Things to spot (with your eyes)

### 1. Constellations (stars that make pictures)

Some easy ones to spot!



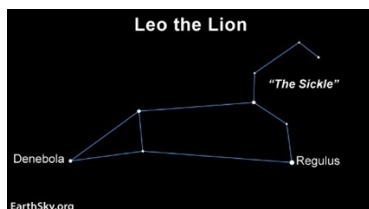
*The Plough (Big Dipper)*



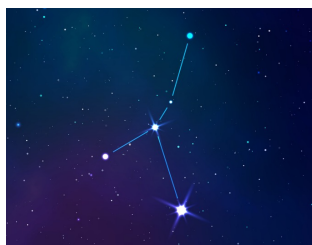
*Orion*



*Cassiopeia*



*Leo (the Lion)*



*Cancer (the Crab)*



Did you spot any constellations? Make a list of them or some drawings here!



**2. The Moon**

Can you see the pattern on the Moon's surface? Write some words to describe what you see!

**3. The International Space Station**

This is where astronauts spend time doing science experiments in space, if you can look up when the ISS will pass over your area you can try and spot the tiny bright dot as it flies past!

**4. Shooting Stars**

A good time to spot shooting stars is in August every year, but they can be seen all year round. Write your impressions here!

**5. Satellites**

Anything that orbits the Earth is called a satellite (even the moon!). But we usually mean a man-made item that has been put into Earth's orbit to do a job. Once your eyes are adjusted to the dark, it is easy to spot them as there are just so many! Unlike aeroplanes, the light on them does not flash and they move quite fast across the sky.



# Night Sky Checklist



Things to spot		Tick (✓)
<b>The Moon</b>	The moon is the biggest and brightest object to see in the night sky. When we can see all of it, that is called a full moon which happens once every 28 days. This is when you can see the most details on the surface.	
<b>Stars</b>	As long as there are gaps in the clouds, you should be able to spot at least one star. Stars do not move and they can look like they are twinkling like in the song 'Twinkle, twinkle little star'.	
<b>Constellations</b>	A constellation is the name given to a group of stars that form a picture in the sky. See the constellation sheet for more information.	
<b>Planets</b>	Unlike stars, planets do not appear to twinkle and they seem brighter. We can only see some of the closer stars in the solar system without a telescope. The brightest ones are Venus, Mars and Jupiter. Mars even looks orangy red in colour.	
<b>Satellites</b>	When your eyes are adjusted to the dark, you'll hopefully spot a 'star' that treks smoothly across the night sky. If it has flashing lights, it's an aeroplane! Satellites often appear and disappear as they move in and out of the sunlight. Some will be very dim while others are quite bright.	
<b>The International Space Station (ISS)</b>	<p>At any given moment, there are up to six humans orbiting the Earth, 400km above our heads in a huge science laboratory.</p> <p>The International Space Station (ISS) is the Earth's biggest artificial satellite, and it's also a very good reflector of sunlight, making it the brightest object in our sky after the Sun and the Moon.</p> <p>Spotting the ISS with the naked eye is one of the most fun and rewarding stargazing activities – you just need to know when and where to look. The ISS is travelling at a speed of around 28,000km/h, circling the Earth once every 90 minutes.</p> <p>To spot the ISS, look for a bright, white spot of light moving quickly across the sky. The light will be constant, so if it flashes, or you see red lights, that's a plane.</p> <p>To find out when the ISS will be visible near you, enter your location at NASA's 'Spot the Station' website (<a href="http://spotthestation.nasa.gov">spotthestation.nasa.gov</a>). It'll tell you exactly when the ISS will be overhead and in which direction to look.</p>	

