

Constellation viewer

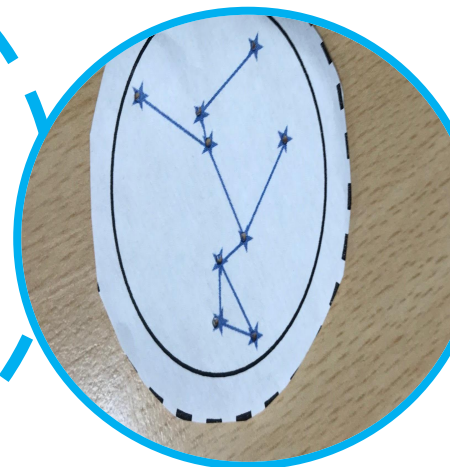
Use everyday items to make a constellation viewer

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What you'll need

- A constellation template
- Cardboard tube
- Glue
- Elastic band
- Drawing Pin
- Stickers paint or paper for decoration



Have you ever looked up at the sky on a clear night and noticed shapes or groups of stars that appear to form a pattern? These are known as constellations.

Each constellation is a collection of stars that are distributed in space in three dimensions – the stars are all different distances from Earth. The stars in a constellation appear to be in the same plane because we are viewing them from very, very, far away. Stars vary greatly in size, distance from Earth, and temperature. Dimmer stars may be smaller, farther away, or cooler than brighter stars. Similarly, the brightest stars are not necessarily the closest.

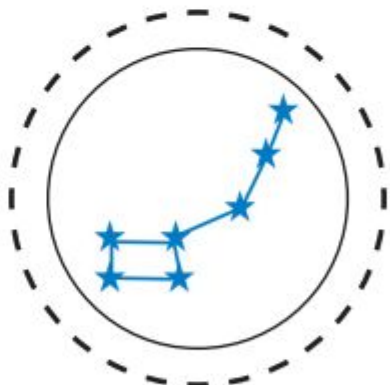
What to do

1. Cut along the dotted line around the constellation pattern. Glue to the centre of the cupcake case.
2. Place the cupcake case over one end of the cardboard and use an elastic band to secure it
3. Use the drawing pin to punch holes where the stars are located in the pattern.
4. Use stickers, paint or cut pieces of paper to decorate your tube
5. Close one eye and use the other eye to look through the tube at the constellation whilst facing a light source (open window or lamp)

NEVER LOOK DIRECTLY AT THE SUN

Constellation viewer -templates

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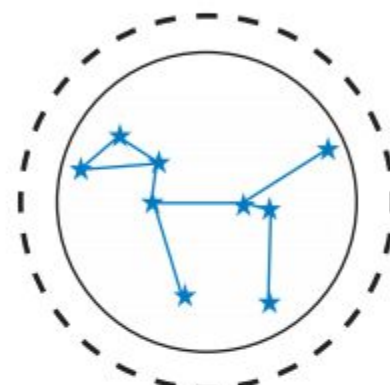
Ursa Minor – The Little Bear - is visible all year round from the UK. The tip of its tail is Polaris (the 'North Star') which lies nearly directly 'above' the earth's North Pole. As the Earth spins Polaris does not seem to move in the sky and so it can be used for navigation- it is always in the same place and so 'points' the way North.



Taurus – The Bull - is a winter and spring constellation for the UK. Its brightest star, Aldebaran, marks the red bull's eye (on the left as we view it). Within the constellation (to the right of the V-shape) lies the star cluster Pleiades or 'Seven Sisters'.



Orion – The Hunter - is a winter/spring constellation for the UK. The three stars across the middle are easy to spot and known as 'Orion's Belt'. The star at Orion's left shoulder is a red supergiant star called Betelgeuse, the star at his right knee is a blue supergiant called Rigel.



Canis Major – The Great Dog - is a winter and spring star pattern in the UK, appearing low in the south. Its brightest star, Sirius (the dog's 'nose'), is the brightest star in our night sky. Sirius is a white star, its name means 'scorching'. It is sometimes called the 'Dog star'.

See if you can find some more star groupings, or constellations, and make your own templates!