

Seeing stars – making a constellation viewer

Why do this?

Why wait until it is dark to see the stars? This activity allows children to make their own multi-constellation viewer.

Curriculum links: *space, stars, light*

Suitability

Years 4-6

Practical details

This activity has been prepared using CLEAPSS guidance. If in doubt, or for further information, contact CLEAPSS.

Safety

- Teach children how to handle the push pins safely.
- Count the push pins out and back in.

Equipment per child

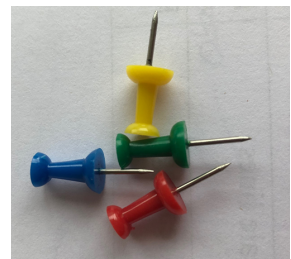
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| • 1 empty <i>Pringles</i> tube including the lid | • 1 pair of scissors |
| • 1 constellation disc sheet | • Glue stick |
| • 1 (of the 2) colour-in wrap around sheets | • 1 ball of <i>Plasticine/Blu Tack</i> |
| • 1 A4 piece of coloured construction paper | • Coloured pens/pencils |
| • 1 push pin | |

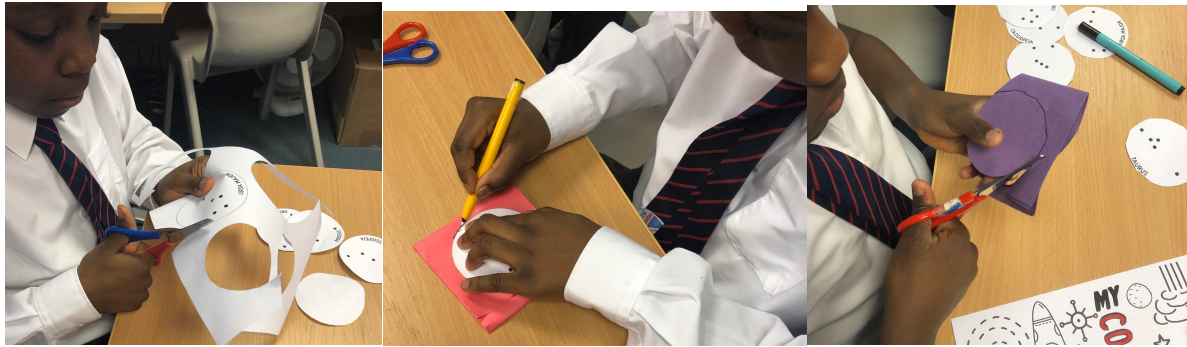
Equipment notes

- *Pringles* tubes work well. Equivalent snack tubes can be used if they have a transparent plastic lid matching the *Pringles* design.
- Avoid drawing pins, push pins are easier for children to use as they have a plastic handle.
- Use any dark coloured construction paper, avoid light/pastel colours.

Procedure

1. Cut out the 6 discs showing the constellations.
2. Fold the A4 construction paper lengthways and then into thirds.
3. Place one of the constellation discs onto the middle of the folded construction paper and draw round it.
4. Cut round the circle. You will have 6 identical coloured discs.



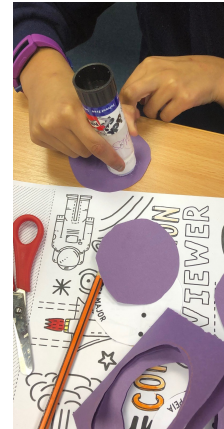


5. Glue a single constellation disc onto each of the coloured discs.
6. Make holes in each of the 'stars' on the constellation discs by placing a small ball of *Plasticine* underneath one of the constellation discs to support it, and then press the push pin through. Repeat with the other discs.
7. Use the push pin to make a hole in the centre of the bottom of the *Pringles* tube.
8. Colour in one of the wrap around sheets and glue it around the *Pringles* tube.
9. Place a constellation disc into the plastic lid of the *Pringles* tube and look through the pin hole in the bottom of the tube to view the constellation.
10. Change the discs in the plastic lid to observe the different constellations.

Be aware when doing this practical:

The bottom of the *Pringles* tube is thin metal so a little force will be required to push the pin into it.

Children wearing glasses may find it easier to remove them before using the viewer.



Expected observations and results

Children will be able to view the star patterns of the different constellations. Each disc will give a different pattern.

Possible further activities

Research other constellations that can be seen at different times of the year and in different hemispheres. Using a blank disc, mark out the pattern, make the holes following the method above and view.

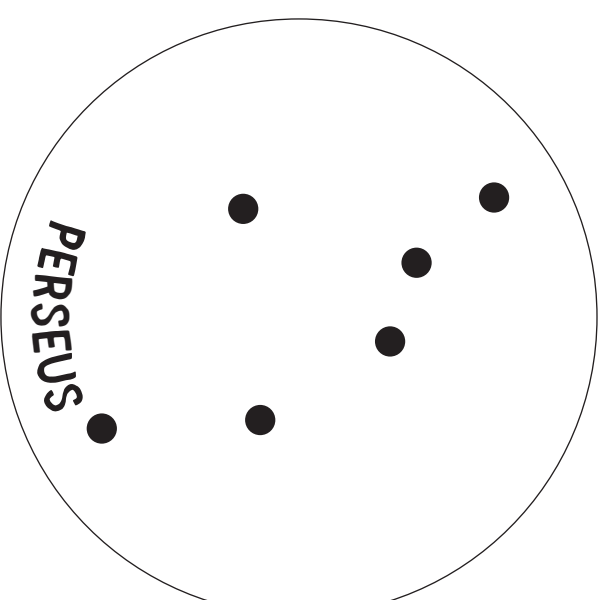
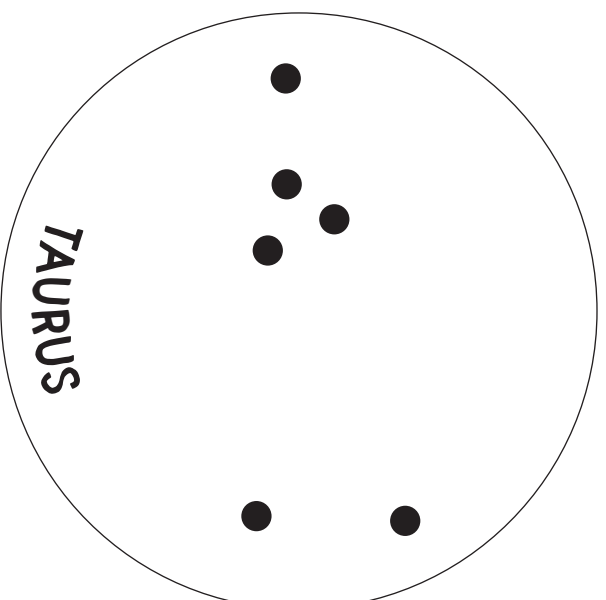
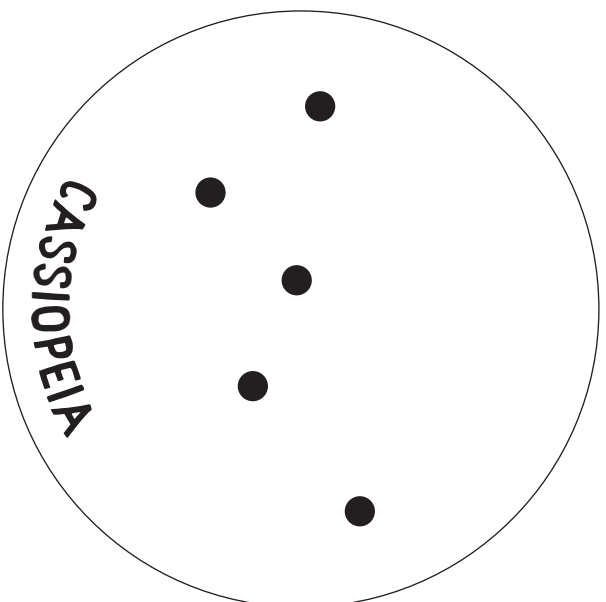
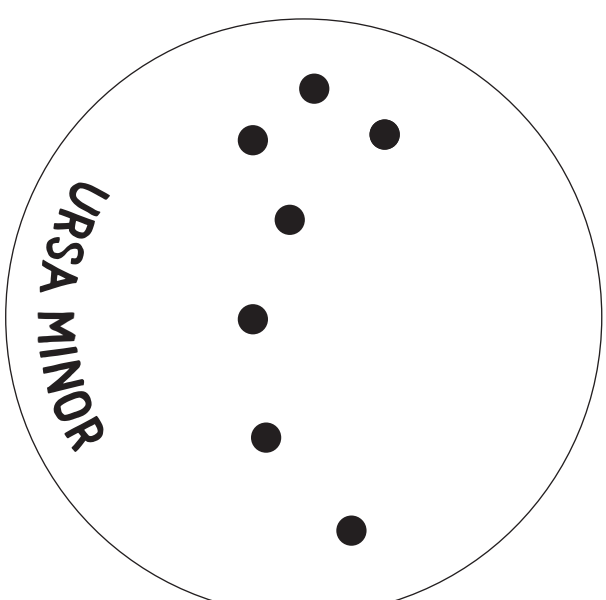
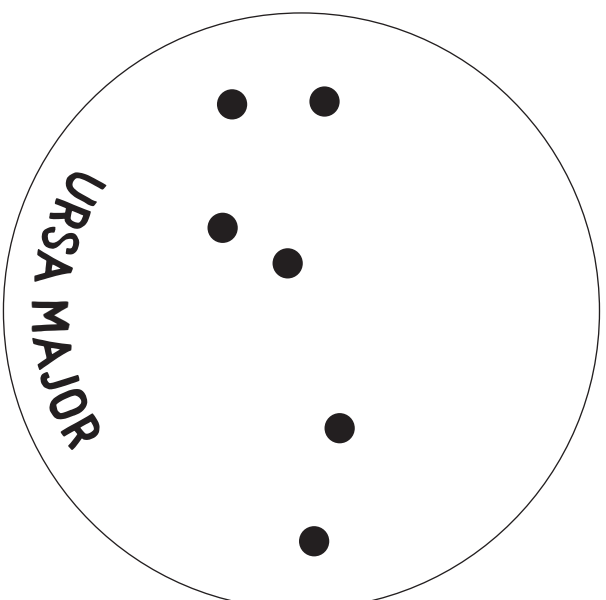
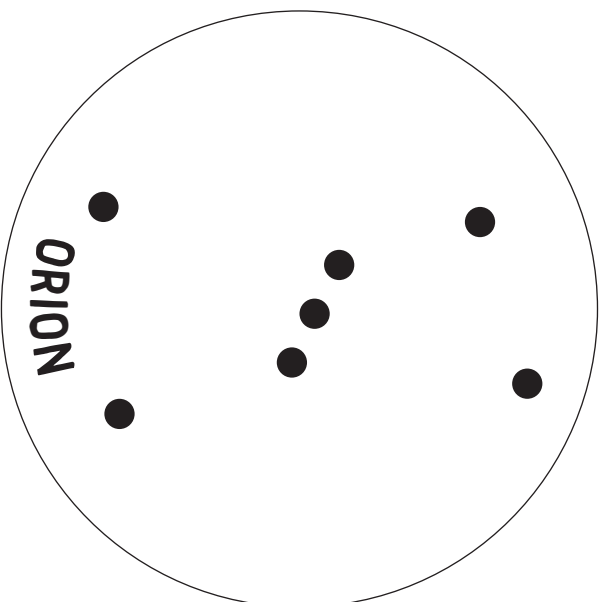


Background notes

A constellation is a group of visible stars that form a pattern when viewed from Earth. Only certain constellations are visible from any one point on Earth, for example from the northern or the southern hemisphere. The season of the year can also affect what constellations are visible from where you are located on Earth.

In the past, constellations were used to help keep track of the calendar which was very important for farmers. They could tell when to plant and harvest crops based on the constellations they could see. They were also used for navigation; by finding Ursa Minor it is easy to spot the North Star (Polaris).

Constellation disc sheet



GLUE HERE

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colour-in wrap around sheet

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primary