Constellations

Material List:

- Worksheet
- Northern star map
- Mobile phone
- White sheet of paper
- Nail or needle
- 20 x 20 cm food foil.

Outline

In this session you will learn about the modern and ancient Northern sky maps. We will answer questions such as:

What are constellations?
How are stars divided by brightness?

Finally, you will be able to make your own constellation and project its image to ceiling for everybody to see.

Procedure:

Step:	To Do:
1	Your teacher will give you an introduction to Constellations. You will learn things like: What is a constellation? What are the names of some constellations? Why are stars different brightnesses and how do we label stars?
2	Your teacher will provide you with a map of Northern sky. You can print this map yourself from https://www.heavens-above.com/skychart2.aspx?lat=51.4934&lng=0.0098&loc=Greenwich&alt=0&tz=GMT
3	You can now choose your own constellation from the star map. Follow the points below to project it on to the ceiling or wall of your classroom.

4	Place the foil under the star map and gently use your needle or nail to pierce through the map in the location of your chosen stars. You can make the holes for the brightest stars in the constellation slightly larger than the less bright stars.
5	Darken the classroom. Using the torch on a mobile phone, project the constellation on the classroom ceiling.
6	Share your projection with your neighbours. Can you find the projected constellation on the Sky map and write down the recognized constellations and their short designations?

Assessment:

After doing this lesson, you should be able to answer the following questions:

- What is an important constellation in the Northern sky?

- How can you find the Polar star?

- What is the brightest star in the sky (day and night)?

- How many constellations are there?

- Which constellation do you find the prettiest/most exciting?

Further Resources/Activities:

Homework for students: On a clear moonless night, find the Cassiopeia constellation on the sky. Draw the constellation of Cassiopeia. What letter does the constellation Cassiopeia currently have at the observation time? (W or M)?