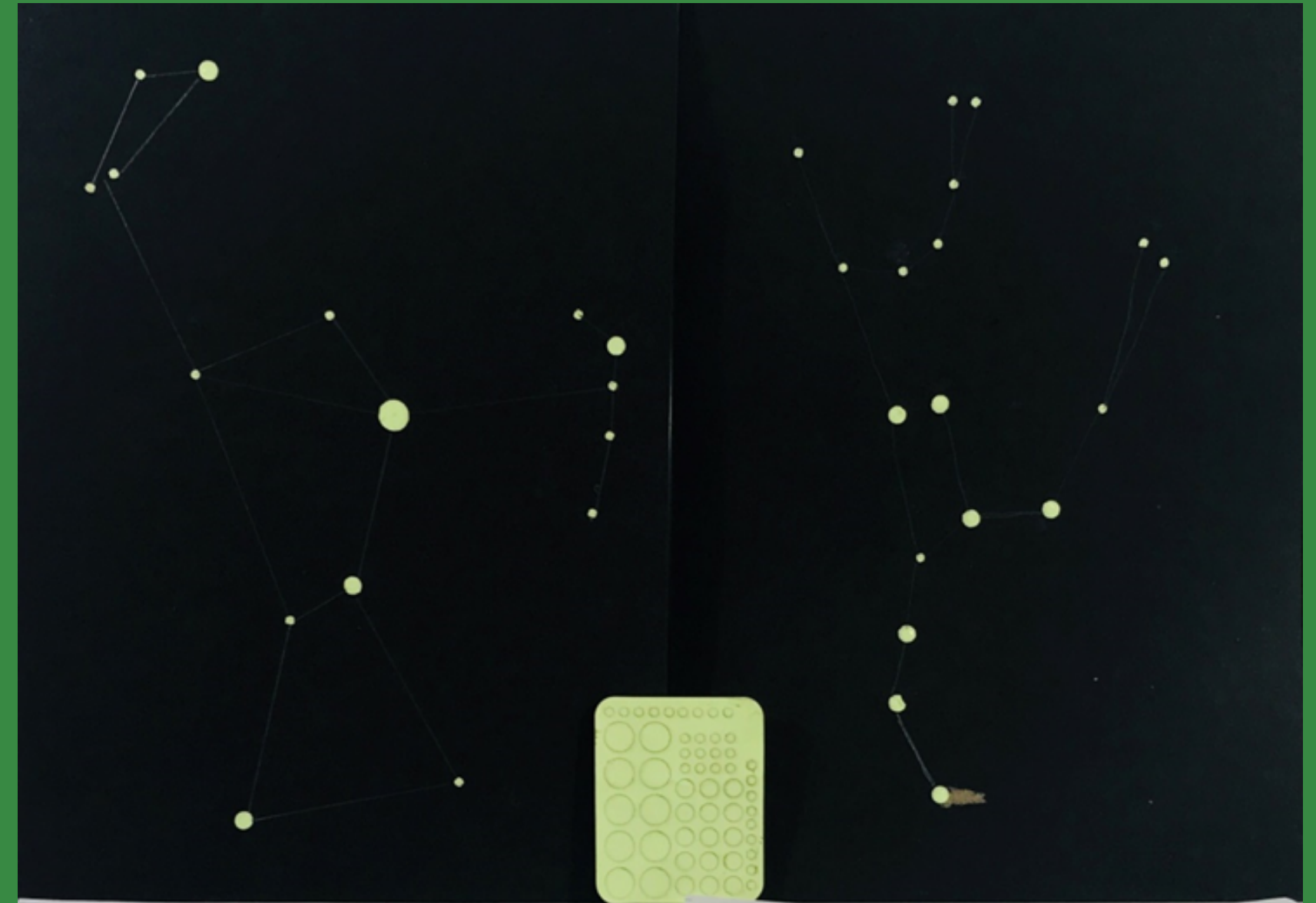




STAR CONSTELLATION



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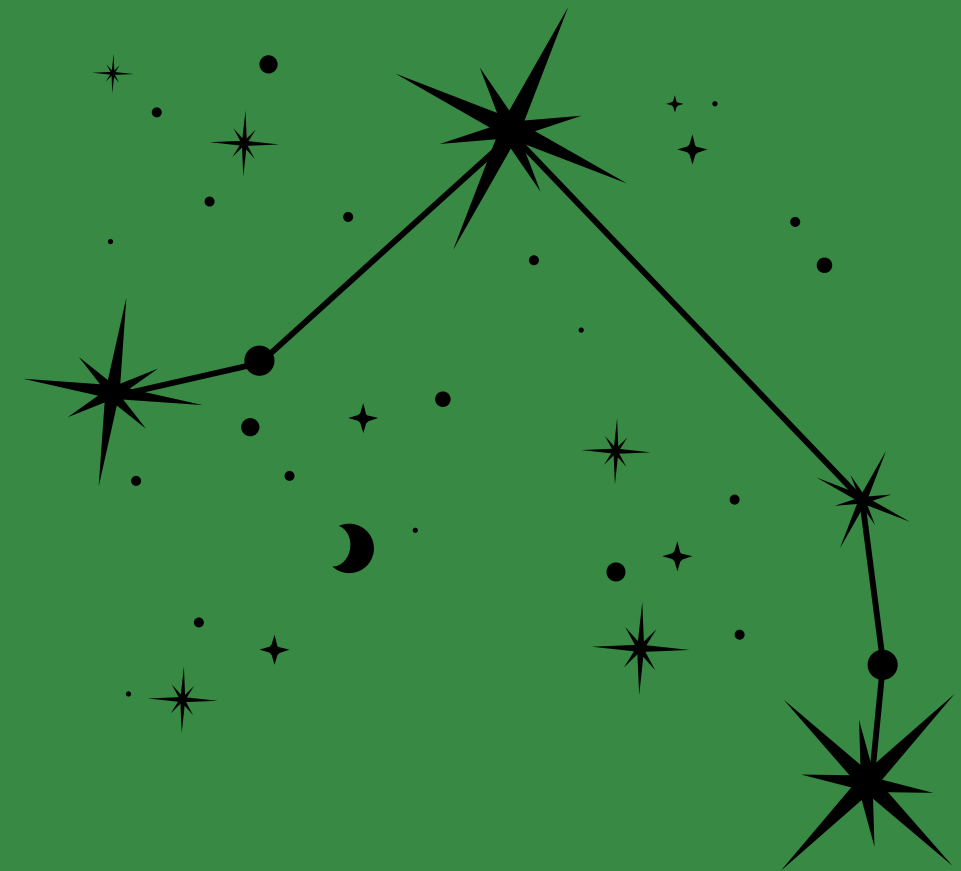
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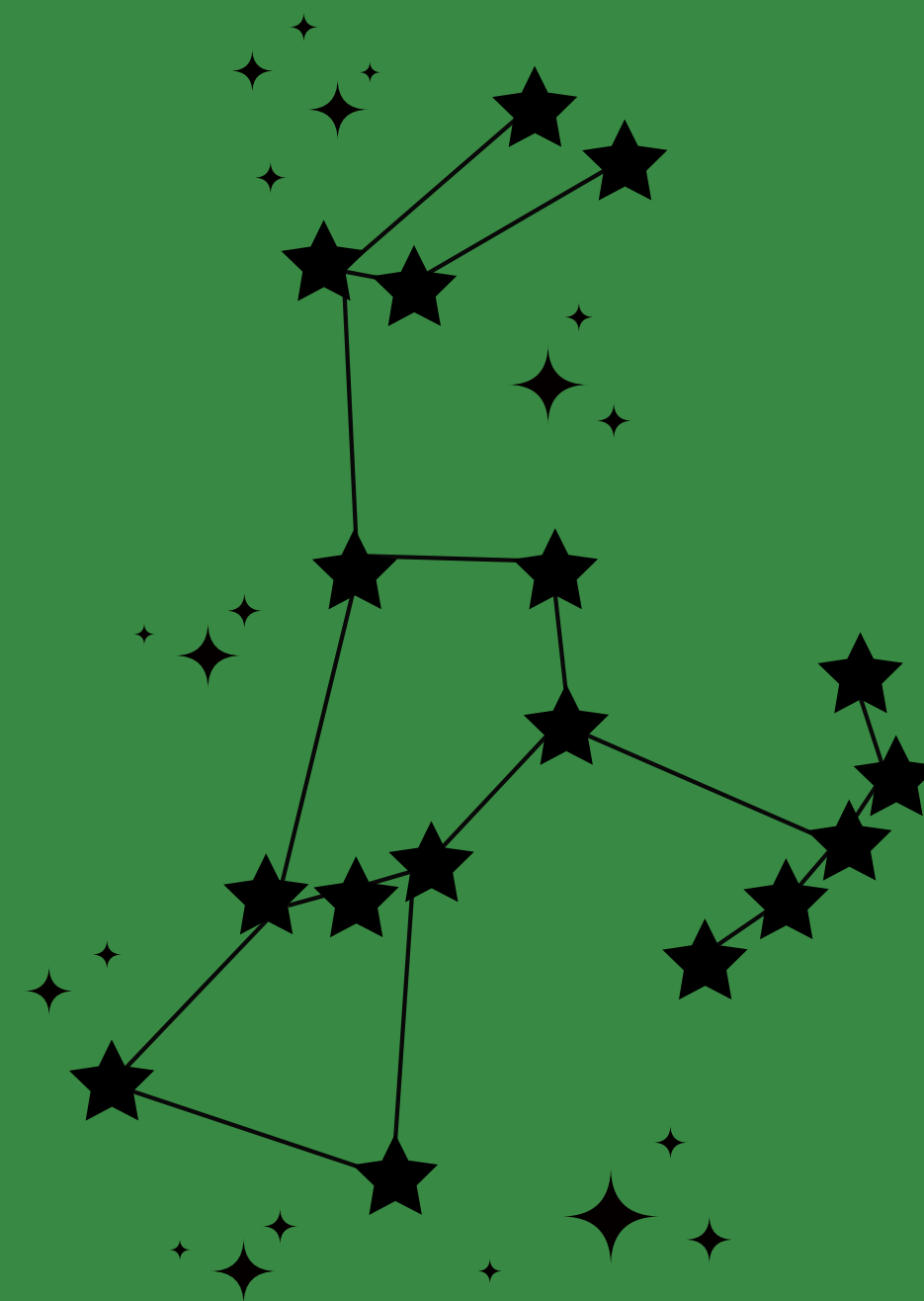
Overview

Constellations are groups of stars that appear to be close together in the night sky. They are named after mythological figures, animals, or objects. Constellations can be used to help people navigate the night sky and to learn about astronomy. Star constellations can be used to teach students about a variety of topics, including astronomy, geometry, and navigation.



Research Attitude

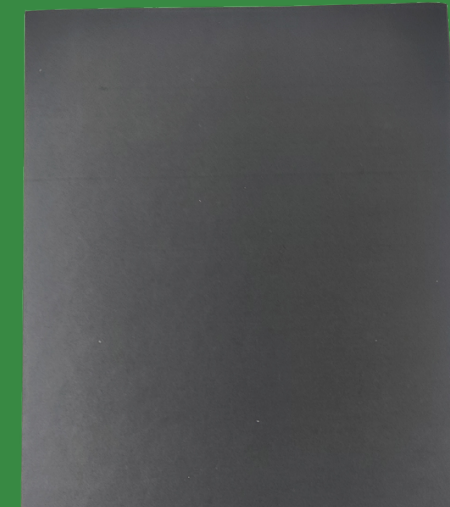
In this simple project, you will be going to design and build a model of a star constellation that should be accurate in terms of the relative positions of the stars in the constellation by using the required materials.



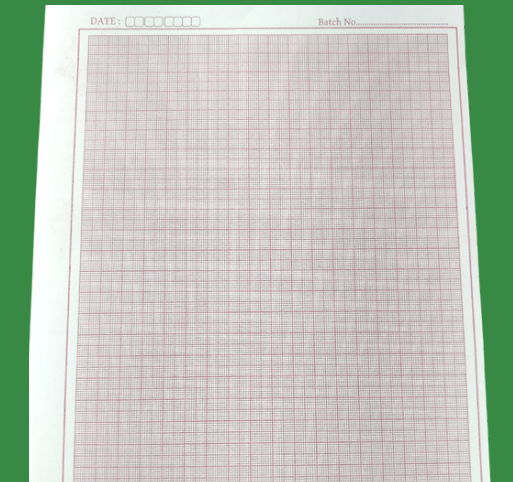
Materials Required

Sr.No	Name	Qty
1	Black chart paper	2
2	Graph sheet	1
3	Tooth Pick	2
4	Radium sheet	1

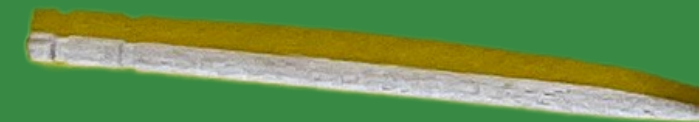
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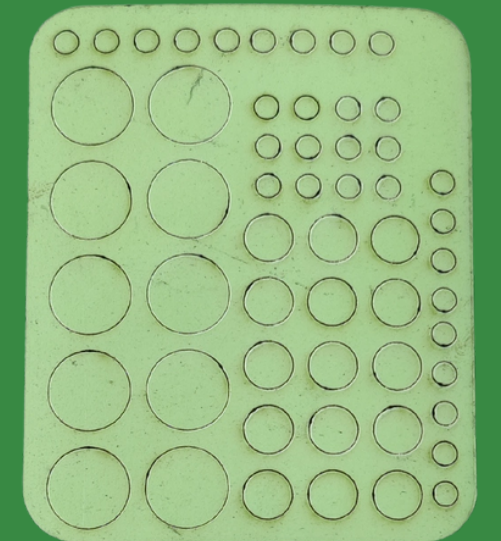
2



3



4



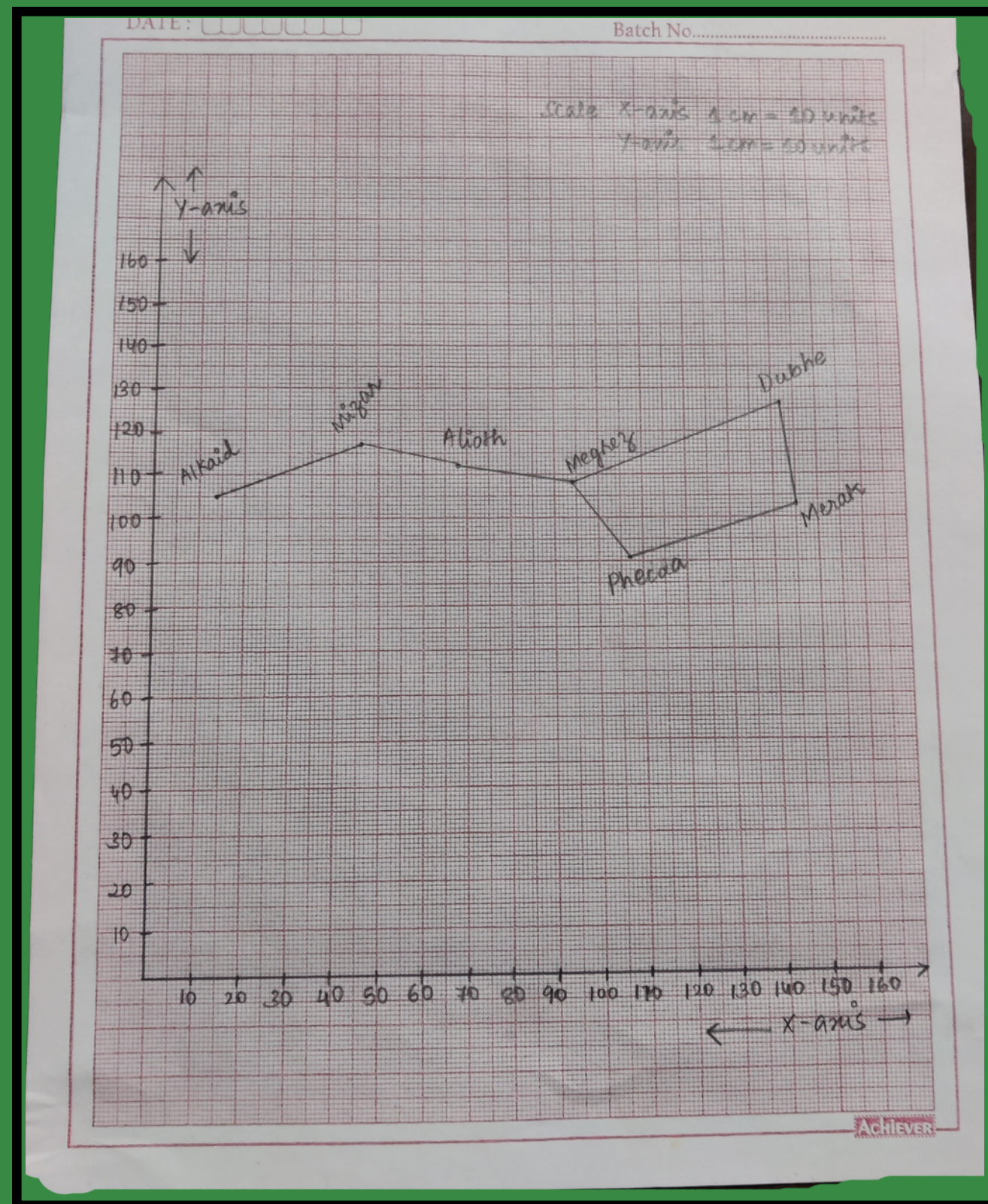
Coordinates of ursa major

Stars	X-coordinate	Y-Coordiante	Visual magnitude
Alkaid	14	105	1.9
Mizar	46	117	2.3
Aloith	68	112	1.9
Megrez	94	108	3.3
Dubhe	142	126	1.8
Merak	145	103	2.4
Phecda	107	91	2.4

Optional

Stars	X-coordinate	Y-Coordiante	Visual magnitude
23	189	146	3.7
(upsilon)	188	125	3.9
Muscida	225	159	3.4
Phi	196	104	4.5
Theta	213	99	3.3
Chi	109	64	3.9
psi	143	48	3.0

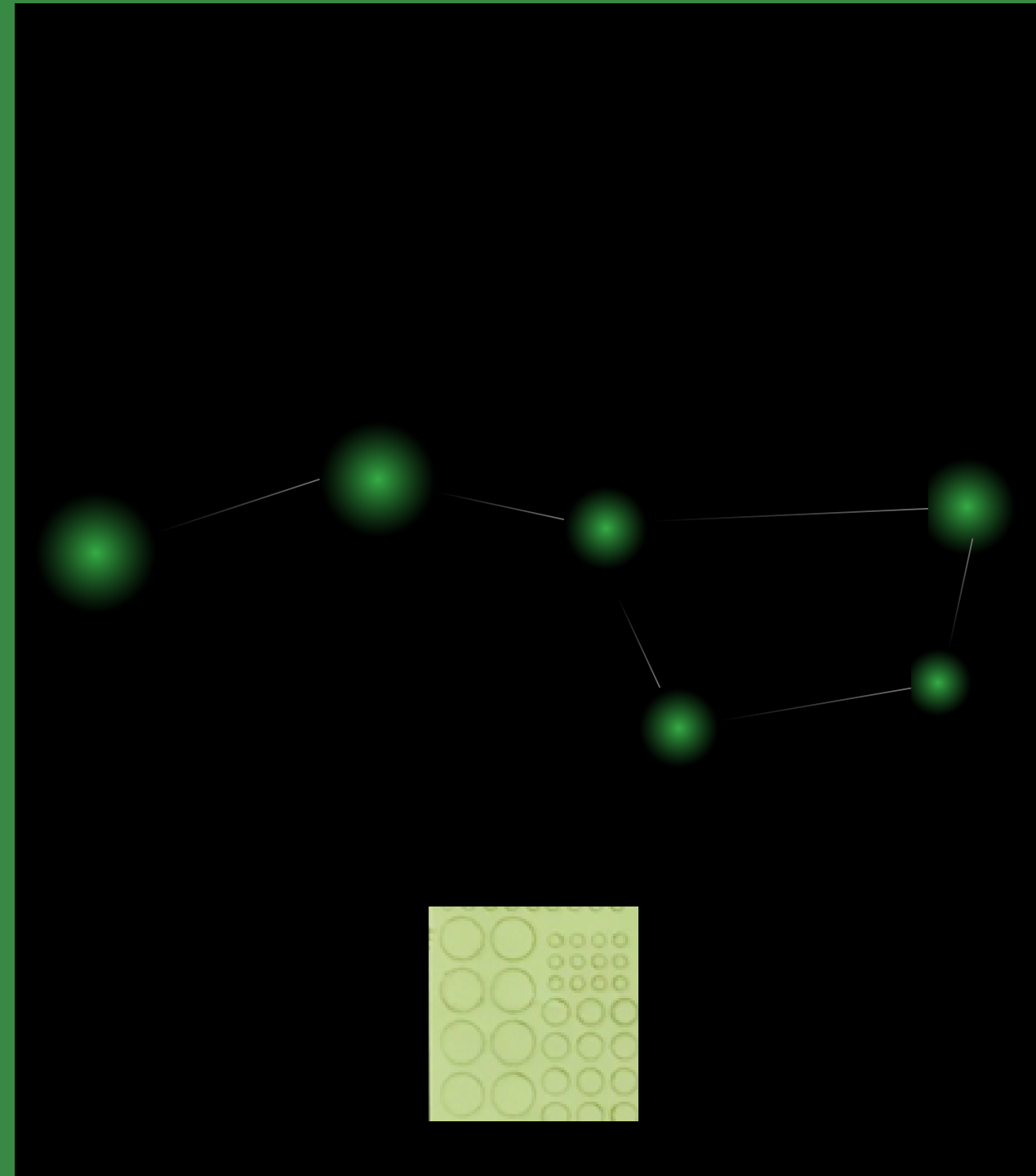
Now take the black chart paper and superimpose the coordinates marked on the graph on it.



- **Now stick the star at each of the marked points according to their magnitude of brightness.**
- **The magnitude of the star refers to its brightness. Astronomers use a reverse scale for brightness. That means the lower the magnitude, the brighter the star is!**

Glow in the dark (Phosphorescence) sticker sheet has 3 different sizes of stickers given representing different magnitude ranges.

- **Use the largest sticker for magnitudes 0.0 to 1.5**
- **Medium for 1.5 to 3.0 and**
- **Smallest for magnitudes above 3.0.**



Keep the Black chart paper stuck with glow in a dark sheet under light for some time. Then take it to a dark room and observe the glow of the stars!

HOW DOES IT WORKS?

Ursa Major, popularly called the Great Bear, is the northern hemisphere's largest constellation. Out of the 88 constellations in the sky, it is the third-largest.

Stars are very far away from Earth. They appear to be close together in the night sky because they are in the same direction from Earth. Constellations are groups of stars that appear to be close together in the night sky.

In this project, the stars are projected in the same relative positions as they appear in the night sky. This allows you to see the constellations as they would appear if you were looking at them in the sky.

