



# How to Make Your Own Constellation Scopes

Summer Reading Club 2020

**You can create your very own constellation scope!**

Constellation scopes allow you to see what constellations would look like if you were looking through a telescope.

Looking out at the night sky, we can see patterns of stars that we sometimes identify as constellations. There are numerous constellations in the night sky that represent Greek and Roman mythology. Some of these include Orion, Cassiopeia, and Ursa Minor. While there are many constellations in the sky, some constellations are only visible during certain times of the year. Currently, there are 88 modern constellations in the sky as established by the International Astronomical Union.

## Materials:

- + Paper towel or toilet paper tube
- + Constellation print out (printed single sided)
- + Aluminum foil or black construction paper cut into circles larger than your tube
- + Glue
- + Pushpin or toothpick
- + Rubber band or tape
- + Flash light (optional)

## Directions:

1. Decorate your paper towel or toilet paper tube and write the name of your constellation on the side
2. Print and cut out your constellation sheet (attached)
3. Glue your constellation to the aluminum foil or black construction paper. (Optional: If using paper cut slashes in paper to help it fold down better.)
4. Take your pushpin or toothpick and carefully poke out the holes where the stars are. (It helps to put the paper on top of cardboard or Styrofoam so you can poke through the paper and into that surface.)
5. Put disc on top of tube, fold paper/foil down, hold with rubber band or tape.
6. Look through viewer at light.\*\*
7. You can also shine a flashlight through the viewer to project the constellation image on the wall.

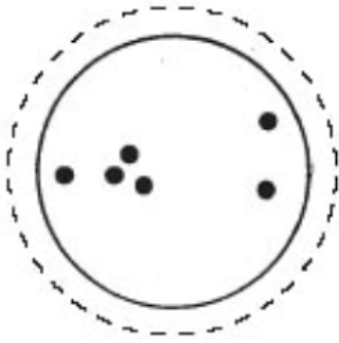
A key thing to remember when making constellation scopes. For the projection to be accurate when you look through the tube, you need to punch the holes so that when you look at it from the top, you see a mirror image of the constellation.

**\*\* DO NOT LOOK THROUGH VIEWER DIRECTLY AT THE SUN\*\***

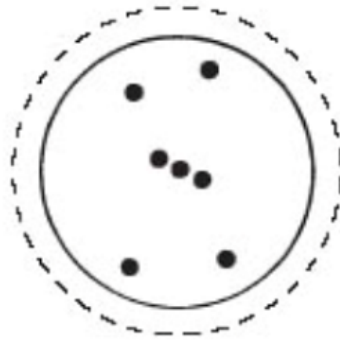
**tacoma public library**  
Start here. Go anywhere.

(253) 292-2001

[www.tacomalibrary.org](http://www.tacomalibrary.org)



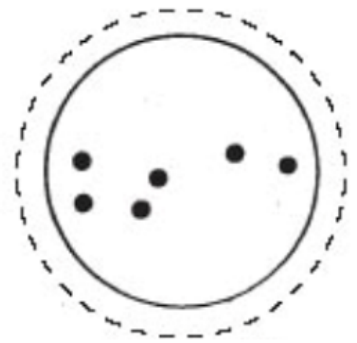
TAURUS  
The Bull



ORION  
The Hunter



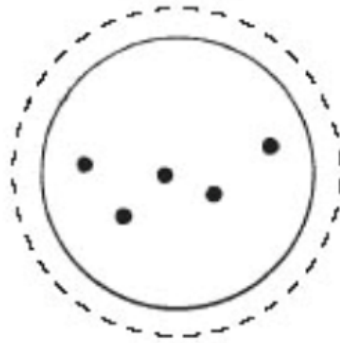
SCORPIUS  
The Scorpion



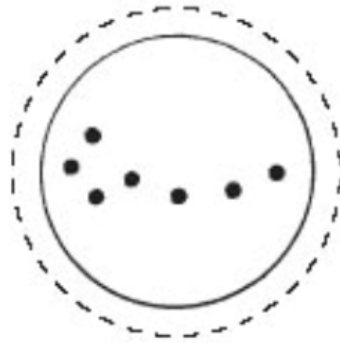
URSA MAJOR  
The Great Bear



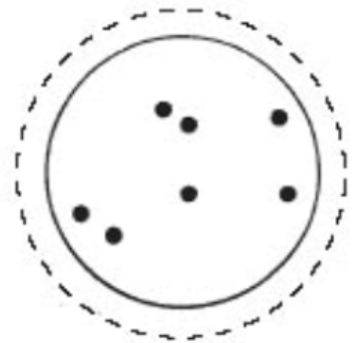
PISCES  
The Fishes



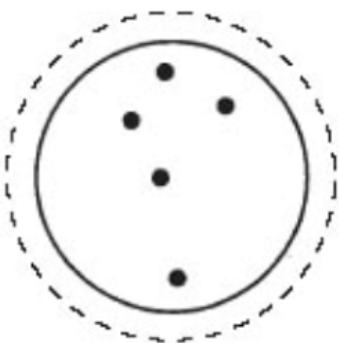
CASSIOPEIA  
The Queen



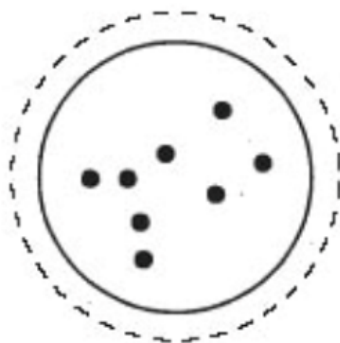
URSA MINOR  
The Little Bear



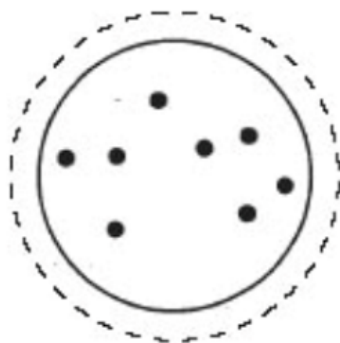
PEGASUS  
The Flying Horse



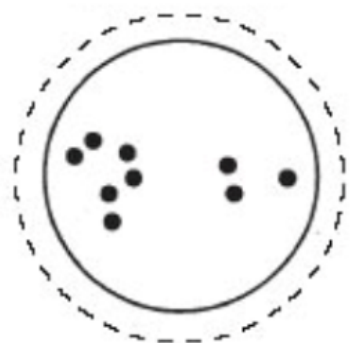
BOOTES  
The Herdsman



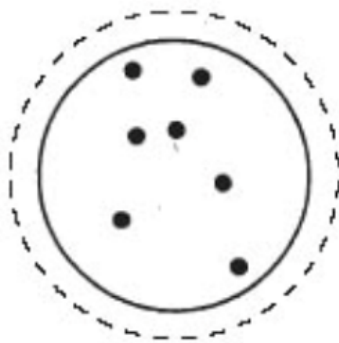
GEMINI  
The Twins



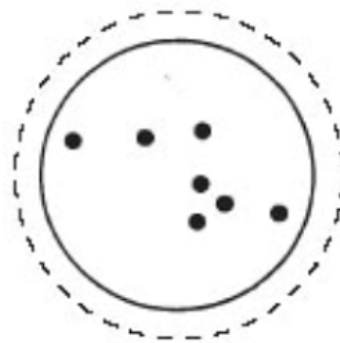
SAGITTARIUS  
The Archer



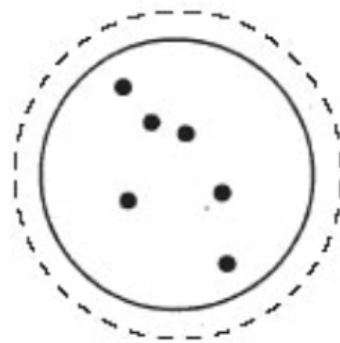
LEO  
The Lion



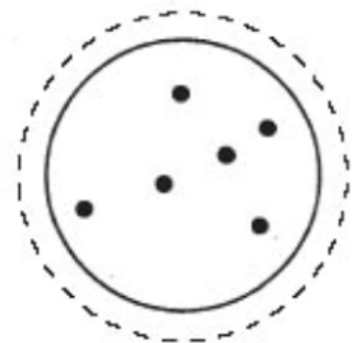
HERCULES



CANIS MAJOR  
The Big Dog



PERSEUS



CYGNUS  
The Swan