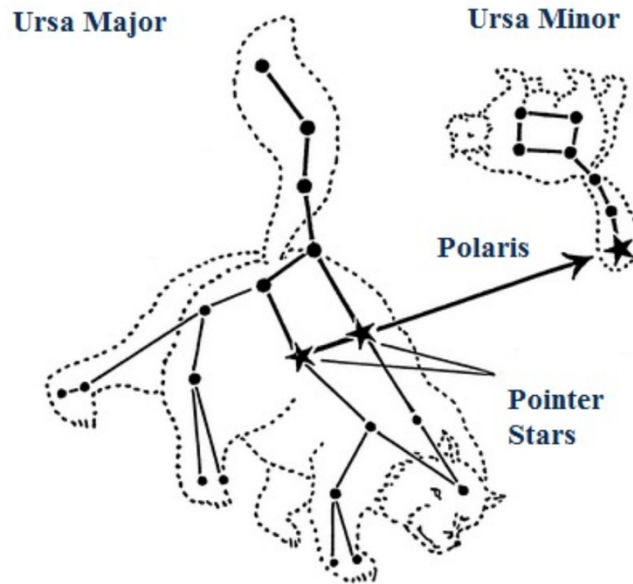


Mapping the Constellations

Asterism refers to a star pattern that is not a constellation. The Big Dipper is an asterism because it is located in the tail of Ursa Major. The two end stars in the Big Dipper's bowl point toward the North Star, Polaris. Polaris is found in the handle of the Little Dipper which is in the constellation Ursa Minor.



Star Mapping Activity

You will use the star map to locate famous star constellations found in the northern hemisphere at different times of the year. Hundreds of years ago, sailors used to rely on the stars to find their way across the northern oceans.

Part A: The Circumpolar Constellations

1. Near the middle of the star map towards summer, locate the Big Dipper - Ursa Major. Use a ruler to draw lines joining the stars that make up the Big Dipper. Label this #1



2. Find the two stars of the Big Dipper that are farthest from the handle. Use a ruler and draw a dotted line through these two stars to Polaris, found in the middle of the star map. These stars are called Pointer Stars. Pointer Star can be used to locate other constellations that are more difficult to find. Label Polaris #2



3. Now that you have found Polaris, use a ruler to join together the other stars in the Little Dipper-Ursa Minor. Label the Little Dipper #3

4. Using the same pointer stars from #2, continue your dashed line for another 2 cm. Off to the right of the dashed line you will notice a constellation that looks like an "M". This constellation is known as Cassiopeia. Use a ruler to join up the stars of Cassiopeia and Label it #4



Part B: Seasonal Constellations

Most constellations can only be seen for part of the year. We refer to these constellations as Seasonal Constellations

5. In the spring part of the map you will find three stars along the edge that line up to make up Orion's Belt. Draw straight lines joining the stars that make up Orion. Label Orion #5. Also label the two bright stars located in Orion; Rigel (as #6), Betelgeuse (as #7), and Bellatrix (as #8).



6. Using the arm of the Big Dipper, continuing the curve of the handle to the left you will locate a bright star in the summer sky called Arcturus. Label Arcturus #9



7. Using a ruler, connect the stars of the constellation that Arcturus is a part of, Bootes. Label Bootes #10

8. Choose **four more** constellations to add to your map. Be sure to label them!

Name_____

Star Map

To orient yourself with the stars, face north and rotate the chart until the current season shows at the bottom. The constellations at the bottom of the chart will be in the northern sky, while the stars at the top of the chart will be to the south.

This is based on midnight stargazing. As the night progresses, the stars will appear to rotate **counterclockwise** due to the rotation of the earth.

