

Sky Tour of the Circumpolar Constellations

In a few minutes on a clear night you can guide a tour through the circumpolar constellations including some interesting aspects of astronomy, a bit of folklore, and learning how to find the north star. Circumpolar constellations are always visible when the skies are clear. The rest are divided into seasonal stars and constellations. Circumpolar constellations in the northern hemisphere are shown here - Ursa Major, Ursa Minor, Draco, Cepheus, and Cassiopeia

Finding the North Star Using the Big Dipper

Draw a line through the two stars forming the cup of the dipper and continue through the sky in the direction of the top of the cup until you reach the north star.

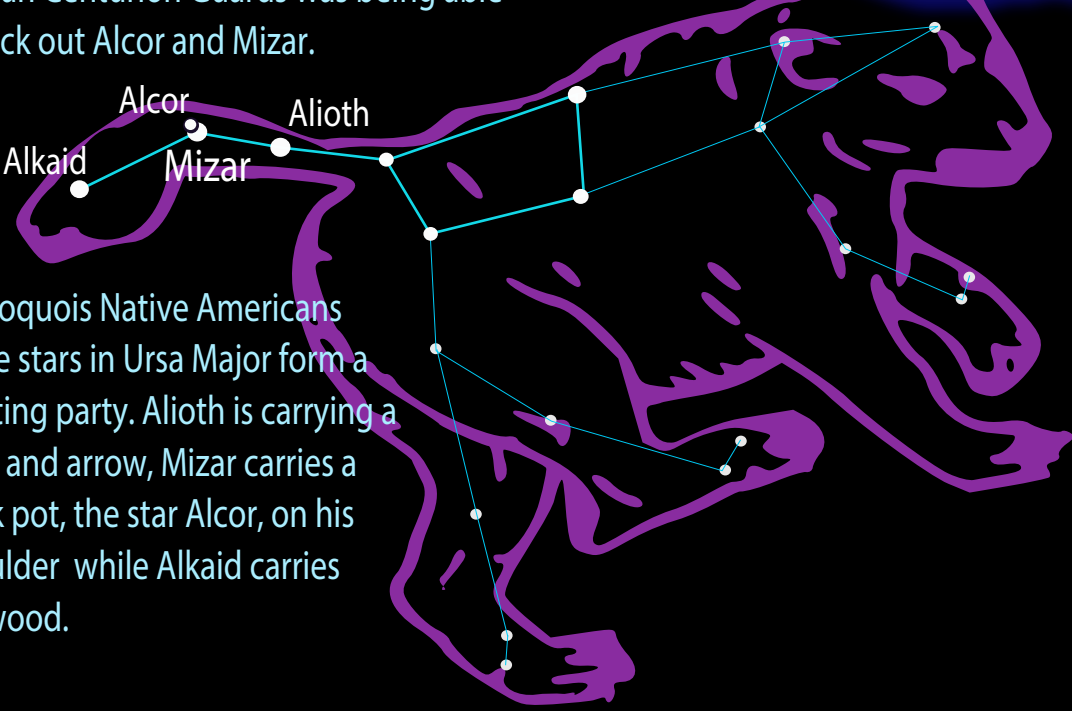
Finding the North Star Using Cassiopeia

Draw a line through the center of the lopsided letter 'w' formed by Cassiopeia. Continue through the sky in the direction of the top of the 'w' until you reach the north star.



The stars Mizar and Alcor in the Big Dipper form a famous optical double star. Together they are sometimes called the "Horse and Rider". The test of eyesight for Roman Centurion Guards was being able to pick out Alcor and Mizar.

To Iroquois Native Americans three stars in Ursa Major form a hunting party. Alioth is carrying a bow and arrow, Mizar carries a cook pot, the star Alcor, on his shoulder while Alkaid carries firewood.

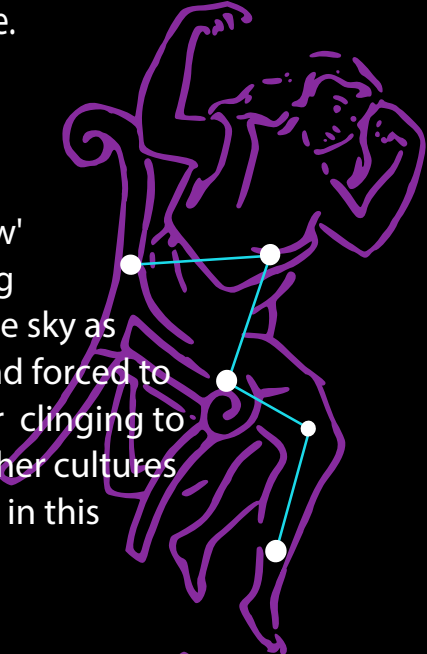


Big Dipper *Ursa Major, The Big Bear*

The seven brightest stars of Ursa Major form the asterism known as the Big Dipper in the United States and Canada, or the Plough in the United Kingdom and Ireland. An asterism is an easy to identify pattern of stars. It may be in a single constellation, or more than one.

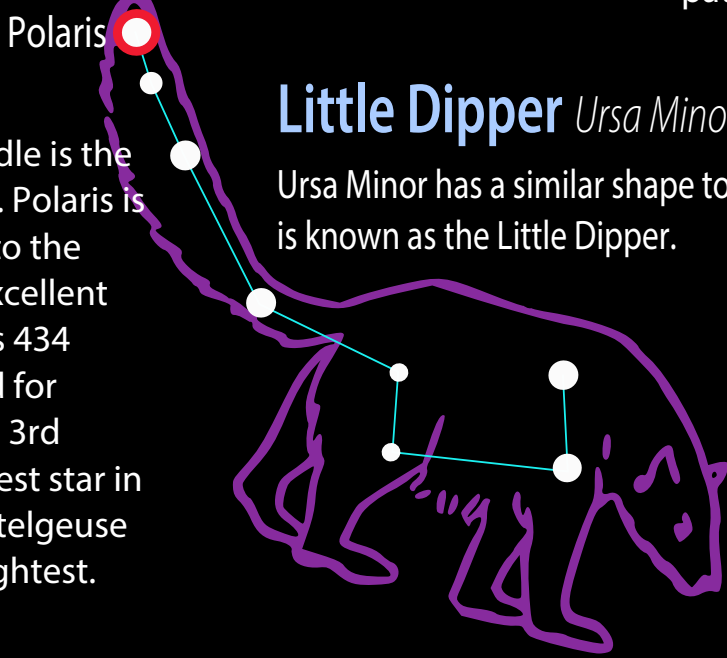
Cassiopeia

Shaped like a big lopsided 'w' Cassiopeia is the wife of King Cepheus. She was sent to the sky as punishment for her pride and forced to wheel around the North star clinging to it so she does not fall off. Other cultures see a hand or moose antlers in this pattern of stars.



The North Star *Polaris*

At the end of the little dipper's handle is the star Alpha Ursae Minoris, or Polaris. Polaris is the most visible star close enough to the north celestial pole to make it an excellent guide star for navigators. Polaris is 434 light-years away and has been used for navigation since approximately the 3rd century CE. Polaris is not the brightest star in the sky, it is actually rather faint. Betelgeuse in the constellation Orion is the brightest.



Little Dipper *Ursa Minor, The Little Bear*

Ursa Minor has a similar shape to Ursa Major, and is known as the Little Dipper.

Cepheus *The King*

Cepheus was the King of Nigeria, married to Cassiopeia, and father of Andromeda.



Draco *The Dragon*

In Greco-Roman legend Draco was one of the Giant Titans, who battled the Olympic gods for ten years. He was killed by the goddess Minerva who threw him into the sky where he froze twisted around the cold North Pole. J.K. Rowling named the character Draco Malfoy after the constellation in her Harry Potter book series.



Astronomy Grade Laser Pointer

The visible beam of an astronomy grade laser pointer at night is ideal for pointing out stars to a group. During the day the green dot is bright even in direct sunlight for pointing out distant locations or features on a nature hike or as an emergency signal. At several times the brightness of a common red laser pointer this is a serious tool, safety and prudence is important.

