

14 Polaris in the constellation Ursa Minor (Little Dipper)

Distance

448 light years

Luminosity

1,260 times that of the sun

Colour

White-yellow

Surface temperature

6,900 K

Diameter

37.5 times the diameter of the sun

(To Planet Trail scale: 52 m)

Mass

5.4 solar masses

Evening visibility

All year round

Polaris is the star at the end of the Little Dipper handle. It is located almost exactly at the celestial pole. Polaris is the only bright star in the apparent daily orbit of fixed stars to stay (almost) stationary. This makes it useful for orientation purposes. It always points north. Polaris can be found in the sky by mentally extending the line of the two outermost stars of the Big Dipper's bowl. Almost 250 years ago, it was discovered with the aid of a telescope that Polaris is a binary star, meaning that it has a companion star which orbits it. In 2006, it was revealed that the main star is itself a binary star. The system consists of a giant star, which is orbited by a dwarf star over a period of about 30 years. The above data refers to the main giant star.

At present, Polaris is relatively close to the celestial pole. However, the celestial pole moves slowly over time. It will come closest to Polaris in the year 2100. In around 12,000 years, Vega in the constellation Lyra will take the place of Polaris.

Other bright stars in the constellation Ursa Minor:

Kochab Distance: 130 light years

Pherkad Distance: 480 light years

14 Constellation Ursa Minor (Little Dipper)

The constellation Ursa Minor (translated from Greek as Little Bear) is also known as the asterism Little Dipper. With the exception of Polaris (the Pole Star) and Kochab, the stars in this constellation are relatively dim. Similar to the Big Dipper, the seven brighter stars (bowl with handle) resemble a spoon. This is why the constellation is often referred to as the Little Dipper. Because of its closeness to the celestial pole, the constellation remains completely above the horizon throughout its daily movement and is therefore visible all year round. The constellation is depicted by a bear figure with an unusually long tail, similar to Ursa Major.

Greek mythology tells the following story about the constellation, which links to the myth regarding Ursa Major:

Callisto had a son with Zeus, who they named Arcas. Hera, the jealous wife of Zeus, turned Callisto into a bear and forced her to roam the forests. At the age of fifteen, Arcas met the bear while hunting. He didn't recognise the bear as his mother and wanted to shoot her. Zeus saved her by turning Arcas into a bear as well and placing them both in the sky. When he did so, he threw them by their tails, which became unnaturally long as a result. Callisto is therefore Ursa Major/ the Great Bear, and Arcas Ursa Minor/the Little Bear.