

The Names of the Stars

Naming stars is an enormous task. Even without a telescope, the eye can see thousands stars. Several ways exist to name stars.

Traditional Names: Many bright stars have names given to them in the past. Most of these names are Arabic. Vega, Capella, Betelgeuse and Sadr are examples of traditional Arabic names. Fewer than 1000 stars have such names.

Bayer System: One way to name stars is to use a system. In the early seventeenth century the astronomer Johann Bayer created such a system. He gave the brightest star in each constellation a name consisting of the greek letter α (alpha) followed by the genitive form of the constellation name (the genitive form is equivalent to the possessive case in English). Other stars receive names in order of brightness going down the greek alphabet. The Bayer system gives clues to a stars brightness and location. Unfortunately the Greek alphabet only has 24 letters.

Flamsteed System: In the early eighteenth century John Flamsteed devised a new naming system that could name large numbers of stars. He gave each star a number starting with the westernmost star in each constellation. This system could name stars in large numbers.

Catalog Names: Several large catalogs of stars exist. These catalogs give stars numbers. The Bonner Durchmusterung gives stars BD numbers. Stars with HD numbers come from the Henry Draper Catalogue. The Smithsonian Astrophysical Observatory Star catalog uses SAO number while the Hubble Space Telescope Guide Star catalog gives stars HGC numbers.

All these systems are in use. This makes it possible for the same star to have several names. The star Dubhe in Ursa Major can also be called Alpha Ursa Majoris and 50 Ursa Major depending on the method used!

Buying a Star: Several organizations exist that will “sell” the privilege of naming a star for yourself or a friend. These organizations provide a certificate and, in many cases, a map showing the star. None of these organizations has any official status with astronomers, NASA, or the government.