Our Night Sky for June 10th, 2024

Last week I described apparent magnitude, measuring how bright a star appears to be. The equipment used to measure a star's brightness are very precise and these measurements allow detailed information to be collected and when combined with measurements of the color and changes in a number of careful data points we can lean about the health and the condition of a star.

Gathering and documenting this scientific data requires delicate equipment able to make very fine measurements but visual astronomers can make pretty accurate estimates of a star's magnitude by comparing to other stars of known magnitudes. You might want to observe an eclipsing binary that's a pair of stars of different brightness orbiting around each other. Often if the rotation of these stars has one star passing in front of the other you can spot these changes by comparing to nearby stars of known brightness.

Most visual observing is duplicating existing measurements. So first with a star map find an eclipsing pair that is visible in your night sky. Make mental note of the magnitudes of a few nearby stars. Usually, you would look for a recognizable grouping. Choose a nearby grouping not far from the binary you are interested in so you don't need to pan your binoculars too far.

A good place to practice is to learn the magnitudes of the stars in the big dipper and then move into the middle of the handle. You should be able to see two stars and spot the differences in magnitude, a good start learning Our Night Sky.