Scientists are seeing double

By Vernon Whetstone
Amateur Astronomer

More about double stars. Astronomers have estimated that between one half to 80 percent of the stars in the Milky Way are double stars.

It was once thought that most of the stars in the galaxy were like our Sun, a single star. But when larger and more powerful telescopes began to come into play, more and more of the stars were discovered to be doubles.

To recap, an optical double is two stars that appear close only because they are lined up along the same line of sight from Earth. An actual double star is two, or more, stars that are bound together by gravity and orbit around each other.

Another kind of double star is two stars that are too close together to be separated by just a telescope. It takes a special instrument, called a spectroscope, to be able to tell that they are doubles.

For example, the star Castor, one of the twin-stars in the constellation Gemini, (the one on the right) is a physical double star. But then each star is also a double, but there is also a spectroscopic double that is also doubled. I know, it gets confusing after a while.

Anyway, that makes a total of six stars in the Castor system.

Another of these double-double stars is a nice sight in binoculars but is even better in a telescope. It is the star Epsilon-Lyrae in the constellation Lyra, the Harp.

One more double will not be available for viewing until about 11:30 these warming May evenings. It will be at a much better viewing position next month. It is the star, Albireo.

Albireo is a magnificent double star. One of them is blue and the other is a nice golden color. This double can be seen in binoculars if you can hold them very, very steady and the viewing is good.

Alas, this is another star that can be seen better in a telescope. But, if you have a pair of binoculars, why not give it a try.

There are many lists of double stars, and the Astronomy League has a certificate and award pin for observing and reporting on 100 double stars. You can find information at: www.astroleague.org and scroll down to the double star program.

SKY WATCH: First quarter moon, Saturday, May 18. With winter moving on out, our old friend Orion, the King of Winter is sinking below the western horizon. Right now his three-star belt is level with the horizon. By the end of the month he will be gone until next fall.

At the same time, however, we have a new constellation to look for in the west. As winter goes, summer comes, and the epitome of summer is Scorpio, the Scorpion. It is rising in the east.

Antares, the red heart of the beast is above the horizon about two hours after local sunset. According to ancient mythology, Orion and the scorpion were engaged in a fierce battle and the scorpion is supposed to have defeated him. That is why the two never appear in the sky

together.

If you haven’t by now, dust off those binoculars because we have a grand planet watch coming up at the end of this week and into next week. Venus has joined the planetary crew in the west after sunset. It is now joined by brother planet, Mercury.

Look in the west about a half-hour after local sunset in the west on Thursday, March 17. The bright dot is the planet Venus, and the fainter dot below in Mercury. Binoculars may be needed to pull it out of the bright glow of sunset. Watch each evening as Venus and Mercury climb higher in the evening sky until Sunday, May 26, when the duo will join Jupiter to make a nice triangle. The speedy pair will then travel higher each evening.

NEXT WEEK: More astronomical blather.