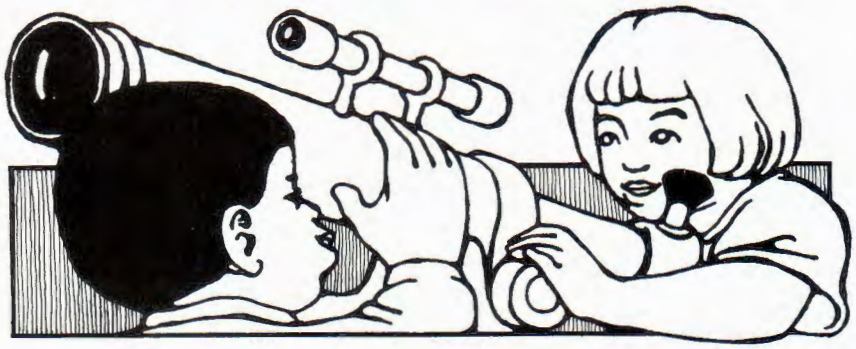
SCOPE

On the skies

Venus hides behind the moon and Mars buzzes by the Beehive Cluster.

Warming up to astronomy



The warm evenings of April and May are ideal for spending time under the stars and planets. Planet observing can't get much better as Mars and Jupiter continue to brighten the April skies.

Playful planets

Both Jupiter and Mars are high over the horizon by sunset, and are visible most of the night. Jupiter, after having reached opposition on March 30, appears almost at its yearlong brightest. The brilliant bluish-white star just below Jupiter is Spica, the brightest star in Virgo.

By the end of April, Mars, having just completed its retrograde loop, moves eastward from Gemini into the constellation of Cancer. You can follow Mars' changing position among the stars as it moves south past Castor and Pollux and compare its brightness with the two stars. At the beginning of April, Mars outshines them, but dims, as the Earth moves away from Mars, until by month's end, it equals them in brightness. May finds Mars moving through the area of Cancer where an open cluster of stars, the Beehive Cluster, is located. Use binoculars or a low-power telescope to watch Mars occult, or block our view of, various stars within the cluster around May 12.

After dominating the winter evenings, Venus reappears in the morning skies, west of the Sun. Joining Venus in the morning skies are the planets Mercury and Saturn. While Saturn will be easier to view as the month passes, Mercury lives up to its name as the messenger god, speedily moving from one side of the Sun to the other, out of the view of those locations north of the midlatitudes.

Lunar happenings

Follow the waning crescent phases of the moon in the morning skies of April 16–20. Before sunrise on the 16th, the moon will be just above Saturn, to the left of Saturn on the 17th, and between Saturn and Venus on the 18th.

While the moon's changing position is exciting to watch, on April 19 the moon and its background will be the most spectacular. The moon will be very close to Venus, and around midday will pass between the Earth and Venus, occulting the planet.

The total time of Venus' occultation will vary from as little as a few minutes to as much as about an hour, depending on the viewing location. (Check with an astronomical organization or planetarium to find out your local viewing times.) The occultation will be visible throughout most of the United States except the Pacific Northwest. Viewing location affects the percentage of the occultation seen, just as is the case with a solar eclipse.

Even if Venus' occultation is not visible in your location, all is not lost. Take this opportunity to view Venus during the daytime. Simply use the moon as a guide. Look for Venus just to the left of the crescent moon before the start of occultation, and just to the right of the moon afterwards. Binoculars will enhance your

viewing of Venus, but Venus will be bright enough to see with the naked eye.

On May 21, our moon eclipses the Sun, providing a partial eclipse that will be visible from the northern locations in the United States, Alaska, and Canada. Proportions of the Sun eclipsed by the moon will range from approximately 67 percent in Anchorage, Alaska, 27 percent in Denver, and 6 percent in Chicago.

Bob Riddle *is the planetarium director for the Kansas City School District at Southwest Magnet Math & Science High School in Kansas City, Missouri.*

Evening planets

Mars: High over the southwestern horizon at sunset.
Jupiter: High over the southeastern horizon at sunset.

Morning planet

Venus: Over the eastern horizon at sunrise.

Moon phases

April
Full Moon - April 6
Third Quarter - April 13
New Moon - April 21
First Quarter - April 29

May
Full Moon - May 5
Third Quarter - May 13
New Moon - May 21
First Quarter - May 28