

Q-C SKYWATCH

Lunar eclipse visible Feb. 10

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On Feb. 10, an eclipse of the moon will be visible from the Quad-Cities area.

A lunar eclipse occurs when Earth passes between its satellite and the sun and always occurs during a full moon. Earth's shadow focuses down to a point, and the moon's orbit takes it through the shadow, darkening it for a time.

There are three types of lunar eclipses: total, partial and penumbral. A total eclipse happens when Earth's main shadow, also known as the umbra, fully covers the moon. In a partial eclipse, the Earth's main shadow only partially covers the moon. A penumbral eclipse involves the Earth's lighter outer shadow, called the penum-

bra, covering the moon. Penumbral shadows often go unnoticed by casual sky watchers.

The Feb. 10 event will be a total penumbral eclipse. The moon will be completely immersed in Earth's penumbral cone but will not travel through the umbra. The moon must follow a very narrow path to pass within the penumbra and outside the umbra.

The eclipse will start at 4:34 p.m., but the moon does not rise until 5:26 p.m. slightly north of due east.

The midpoint of the eclipse will be at 6:43 p.m. with the moon still not high above the horizon. At this midpoint, the moon will be at its dimmest for the event. Even so, only a slight dimming or a grayish look to the full moon will be visible.

The moon will continue to brighten as it leaves the penumbral shadow until 8:55 p.m. when it will have regained its full brightness.

Sirius: You also can see several other objects during the eclipse. Low in the southeast is one of the brightest stars in our sky, Sirius, located 8.6 light years from the Earth. It is in the constellation of Canis Major (the greater dog in Latin) in our southern sky.

Orion: Just above Sirius is the constellation of Orion. It has four bright stars in a square with three bright stars in a row across the middle (belt). Orion, also known as the hunter in mythology, is followed by the greater dog (Canis Major) across the sky.

Venus: In the opposite part of the sky, toward the southwest, you can see another very bright object: the planet Venus.

Mars: A little to the left of Venus is Mars, the red planet.

To learn more, join the Popular Astronomy Club. It meets the second Monday of the month at 7 p.m. at the John Deere Planetarium at Augustana College.