

A Handy Guide to Total Lunar Eclipses

Blood Moon

Total lunar eclipses are sometimes called "Blood Moons" because of the Moon's reddish glow during totality.



A Straight Line

A total lunar eclipse occurs when Sun, Earth and Moon form a straight line and the Earth casts its shadow on the Moon's surface.

SUN



EARTH



MOON



Umbra

Penumbra



Full Moon

Lunar eclipses happen only when there is a full Moon.



0. Very dark eclipse. Moon almost invisible.

Shades of Red

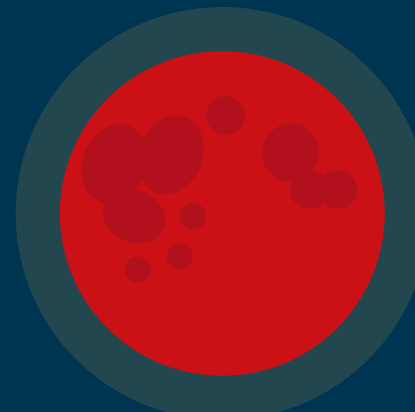
The fully eclipsed Moon can take on different colors, ranging from pale orange to dark red depending on the quality of the Earth's atmosphere.



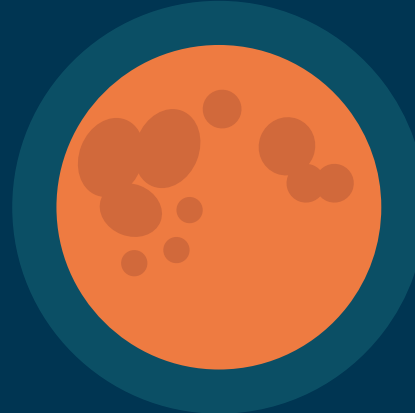
1. Dark eclipse. Gray or brown in color.



2. Rust-colored eclipse. Dark central shadow with lighter area on the outer edge.



3. Brick-red eclipse. Umbral shadow may have a yellow edge.



4. Copper-red or orange eclipse. Umbral shadow may have a turquoise/ bluish edge.

Danjon Scale

5 point scale to measure brightness of the Moon during a lunar eclipse.



Did you know?

Night side

Everyone on the night side of the Earth can see the eclipse.

2.5 years

On average, a total lunar eclipse can be seen from any given location every 2.5 years.

Naked eye

Unlike solar eclipses, observing a total lunar eclipse does not require any special equipment. Lunar eclipses are safe to see with the naked and unaided eye.

