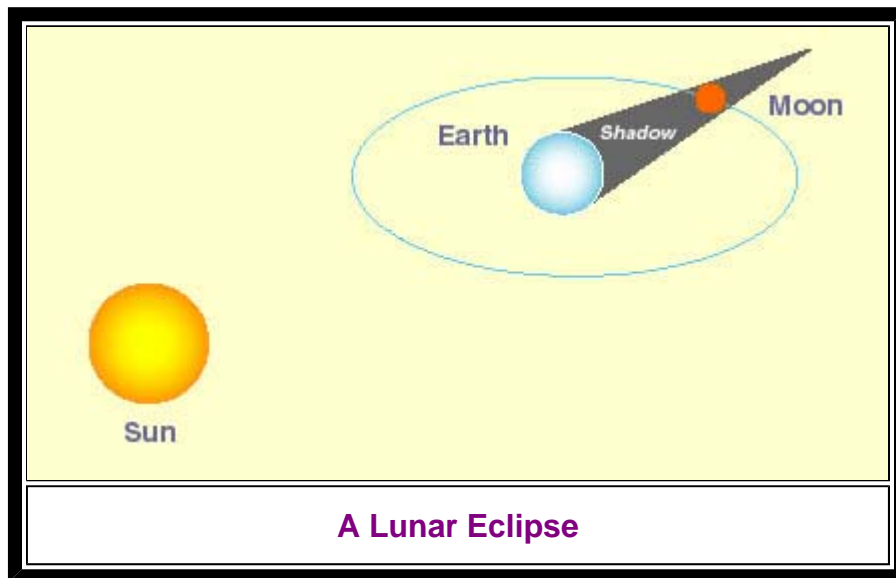


## Lunar Eclipses

As we have noted in the preceding section, the Earth casts a shadow that the Moon can pass through. When this happens we say that a [lunar eclipse](#) occurs. Just as for solar eclipses, lunar eclipses can be partial or total, depending on whether the light of the Sun is partially or completely blocked from reaching the Moon. The following figure illustrates a total lunar eclipse with the Moon lying in the umbra of the Earth's shadow.



During a total lunar eclipse the Moon takes on a dark red color because it is being lighted slightly by sunlight passing through the Earth's atmosphere and this light has the blue component preferentially scattered out (this is also why the sky appears blue from the surface of the Earth), leaving faint reddish light to illuminate the Moon during the eclipse.

Here is an [animation of a lunar eclipse](#). Upcoming eclipses of the Moon (and Sun) may be found in this [table of eclipses](#).

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