

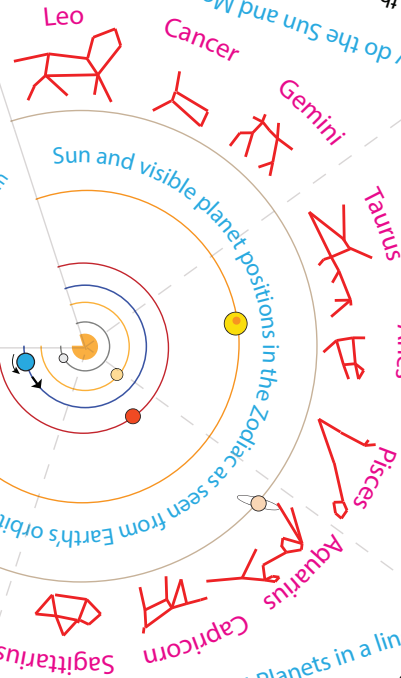


About 300X larger diameter

About 300X closer
 During a Solar Eclipse the Moon blocks the Sun in a small region that moves across Earth

Although the Sun is much larger than the Moon, they appear to be about the same size in the sky because the Sun is also much more distant. During a solar eclipse if the Moon is relatively closer the Moon blocks the Sun entirely (total eclipse of the Sun uncovered (annular eclipse this past October).

Why do the Sun and Moon look the same size?



Sun and visible planet positions in the Zodiac as seen from Earth's orbit in the ecliptic plane

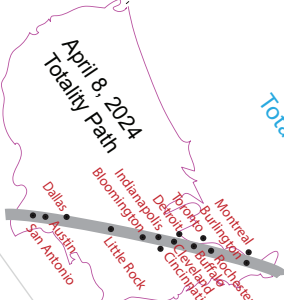
Sky During Total Eclipse
 April 8, 2024 starting 3:04 pm

After the partial eclipse starts around 2 pm from the right side of the Sun, the Moon will totally obscure the Sun in Bloomington starting at about 3:04 pm for 4 minutes. During the total eclipse Venus and Jupiter, and maybe Mercury, Mars, and Saturn, will appear along the ecliptic.

Looking West

Looking South

Looking East



April 8, 2024
 Totality Path

Total Eclipse April 8, 2024!

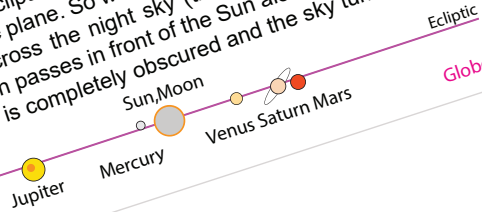
The solar eclipse will completely block the Sun for over four minutes on the Totality Path. Each month the Moon passes between the Earth and Sun (New Moon), and each month it crosses the ecliptic plane twice. When it crosses between the Earth and Sun so it eclipses the Sun.

Why are the Sun, Moon, and Planets in a line?

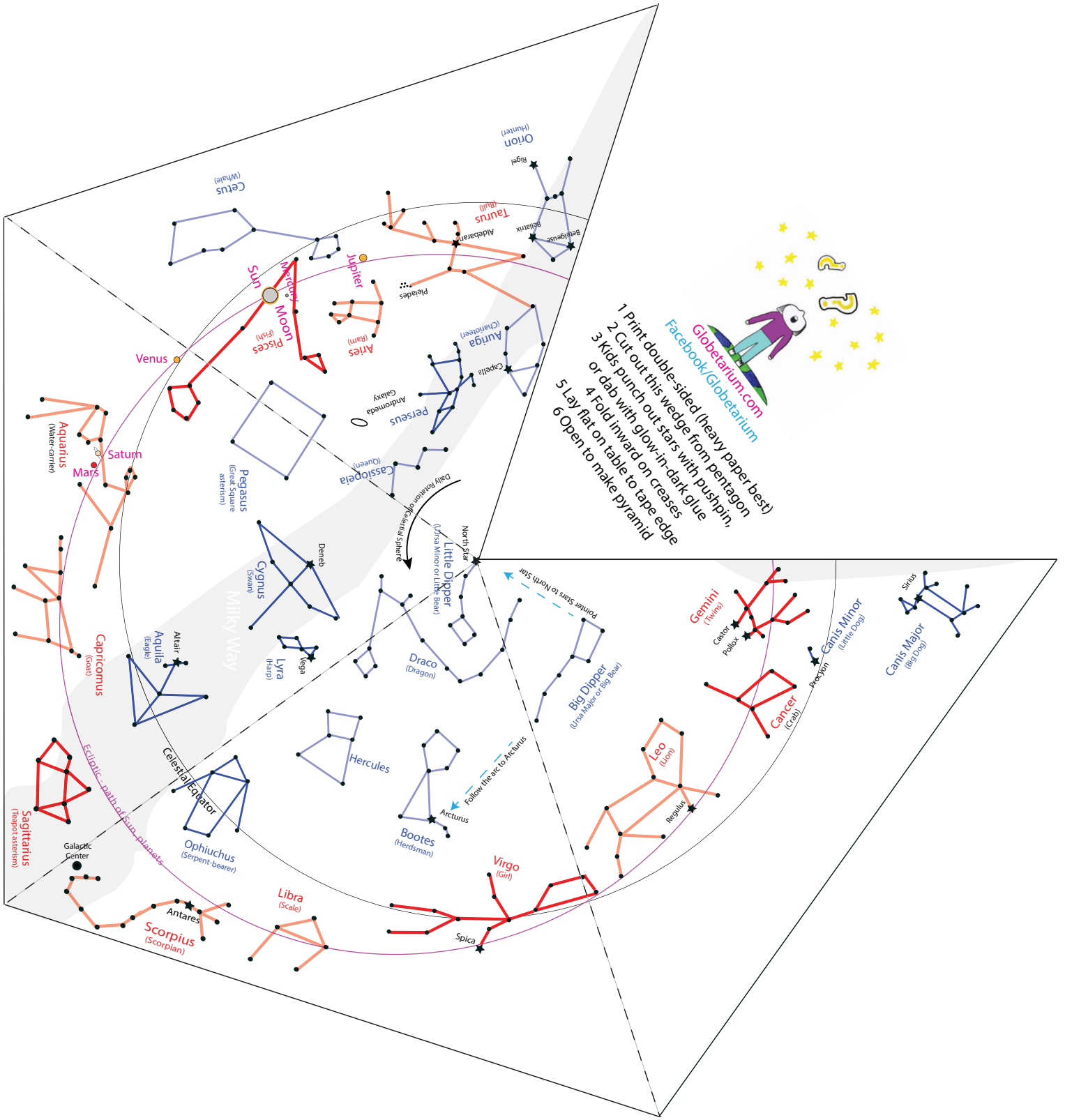
Earth and the visible planets orbit the Sun in nearly the same plane (the ecliptic plane), and the Moon orbits the Earth in close to the same plane. So we see the Sun, Moon, and planets in one rough line across the night sky (the ecliptic). A solar eclipse occurs when the Moon passes in front of the Sun along the ecliptic. In the path of totality the Sun is completely obscured and the sky turns dark.

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Ecliptic



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- 1 Print double-sided (heavy paper best)
- 2 Cut out this wedge from pentagon
- 3 Kids punch out stars with pushpin, or dab with glow-in-dark glue
- 4 Fold inward on creases
- 5 Lay flat on table to tape edge
- 6 Open to make pyramid