

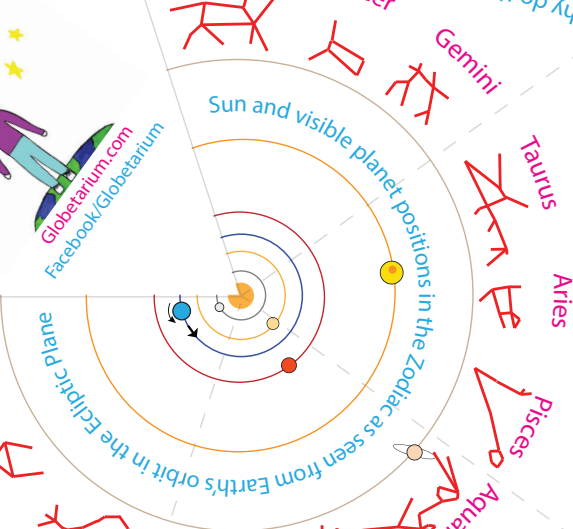


During a Solar Eclipse the Moon blocks the Sun in a small region that moves across Earth

About 300X closer

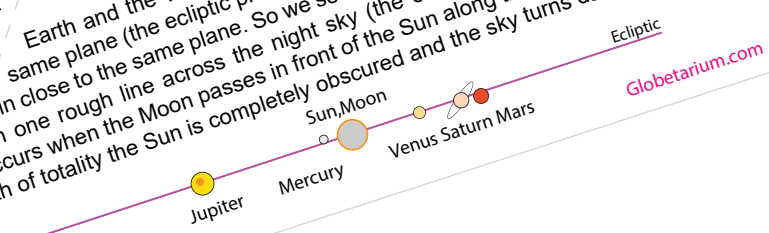
About 300X larger diameter

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 slightly closer the Moon blocks the Sun entirely (total eclipse on April 8) and if the Moon is relatively slightly further away it leaves a ring of the Sun uncovered (annular eclipse this past October).



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.



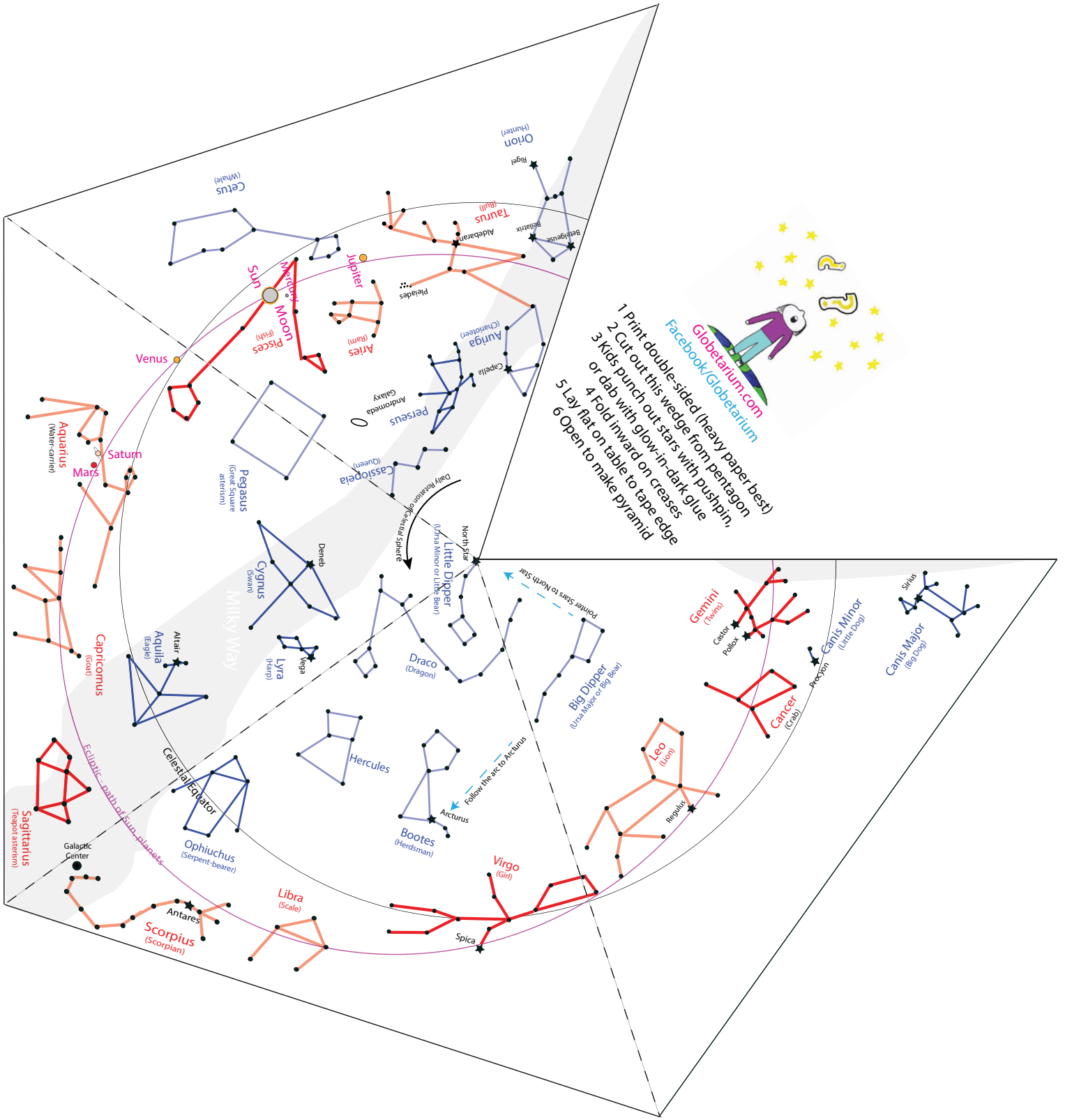
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April 8, 2024 Totality Path

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

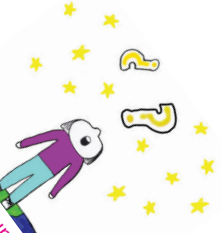
Montreal Burlington Rochester
 Toronto Buffalo Cleveland Cincinnati
 Indianapolis Franklin Little Rock
 Dallas Austin San Antonio





Facebook/Globetarium
 Globetarium.com

- 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



Cetus (Whale)

Orion (Hunter)

Taurus (Bull)

Sun

Moon

Pisces (Fish)

Venus

Saturn

Mars

Aquarius (Water-carrier)

Capricornus (Goat)

Sagittarius (Teapon-asterion)

Antares

Scorpius (Scorpion)

Libra (Scale)

Virgo (Girl)

Leo (Lion)

Cancer (Crab)

Gemini (Twins)

Canis Minor (Little Dog)

Canis Major (Big Dog)

Sky

Orion (Hunter)

Taurus (Bull)

Pisces (Fish)

Venus

Saturn

Mars

Aquarius (Water-carrier)

Capricornus (Goat)

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