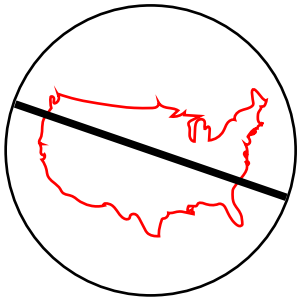
Mini-cubetarium

Solar Eclipse Edition (SEE)
Sun, Planets, Moon Positions
on 8/21/2017
Baba-Isha-Koel Productions
Globetarium.com

Cube-shaped projecting
elestial sphere planetarium

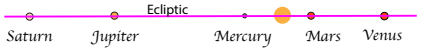
Never look at the sun except through
ISO-certified eclipse glasses



Great American Eclipse
Totality Path, 2017
Globetarium.com

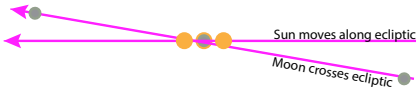
The Ecliptic

The best way to understand the night sky is through the classical idea of the ecliptic. Earth and the 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 nearly one line across the sky (the ecliptic). As the Earth rotates daily, the celestial sphere appears to rotate, and the Sun, Moon, and planets rise and set in sequence along the ecliptic. The Sun and planets move slowly along the ecliptic through the Zodiac constellations that divide it, with their sequence and apparent motion changing based on where they are in their orbits. Due to the Earth's tilt, the ecliptic is tilted and the Sun crosses the celestial equator during Spring and Fall equinoxes in its annual cycle.



Solar Eclipse

As the Moon orbits the Earth, each month it passes betweeen the Sun and Earth (new moon), and each month it crosses the ecliptic plane. When it crosses during a new moon, the Moon is exactly between the Earth and Sun so a solar eclipse may be seen. In a total solar eclipse some planets and stars can be seen in the daytime sky. This eclipse, look for Venus, Mars, Mercury, and Jupiter to appear, and the nearby bright stars of the winter night sky, including Regulus, Pollox, Castor, and Procyon. As the Earth spins past sunset, look for Saturn and the bright stars of the Summer Triangle.



Construction Instructions

1) Poke out holes for stars using a push-pin.
2) Fold up along dashed lines.
3) Tape together edges with clear tape.

Viewing Instructions

1) Look in from below to see constellations.
2) In a small darkened room, shine cellphone light in from below to see stars on ceilings and walls.

Never look at the sun except through eclipse glasses.

Selected constellations, asterisms, and bright stars shown. Sun, Moon, and planets not to scale.

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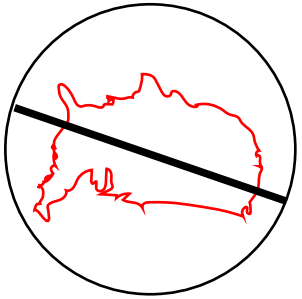

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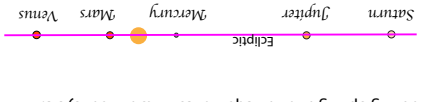

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