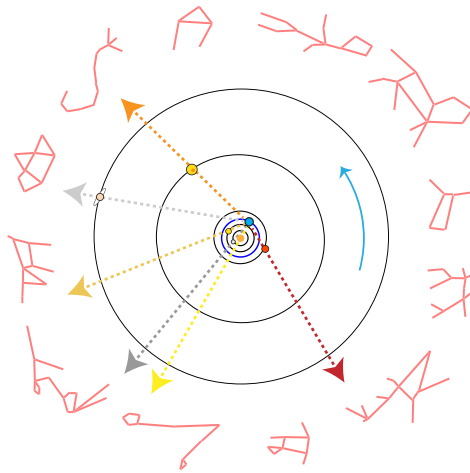


The best way to understand the night sky is through the classical idea of the ecliptic. Earth and the visible planets orbit the Sun in nearly the same plane (the ecliptic plane), and the Moon orbits the Earth in close to the same plane. So we see the Sun, Moon, and planets in nearly one line across the 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. From the perspective of Earth, the Sun and the visible planets appear to move slowly along the ecliptic through the Zodiac constellations that divide it, with the planets' sequence and apparent motion changing based on where they are in their orbits. Uranus and Neptune are also on the ecliptic, but are not visible to the unaided eye, so they are not shown here.

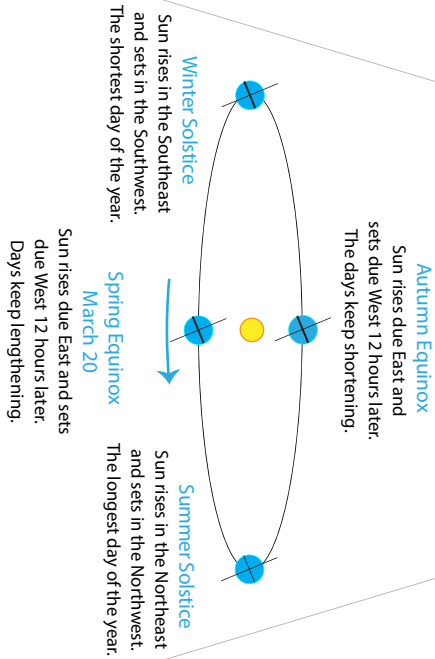
The Ecliptic



March 2019 Night Sky Highlights

March 6: New Moon. The Moon in its monthly orbit around Earth will be between the Earth and the Sun and so it will set with the Sun and not be in the night sky. It will be near the Sun in the daytime sky, but it will not be visible in the Sun's glare. It will be slightly below the ecliptic plane so it will not block the Sun. Traditionally "New Moon" meant the slight Crescent Moon that is visible just after sunset a few days later.

March 20: Full Moon, "Super Moon". The Moon will be opposite the Sun and so will it appear as a full disk and will reflect the most light back on Earth. Since it is opposite the Sun, as the Earth spins the Full Moon rises just as the Sun sets, and it sets just as the Sun rises. The Moon will be near its perigee, so it will be a few percent closer than usual and will appear about 10% brighter than usual.



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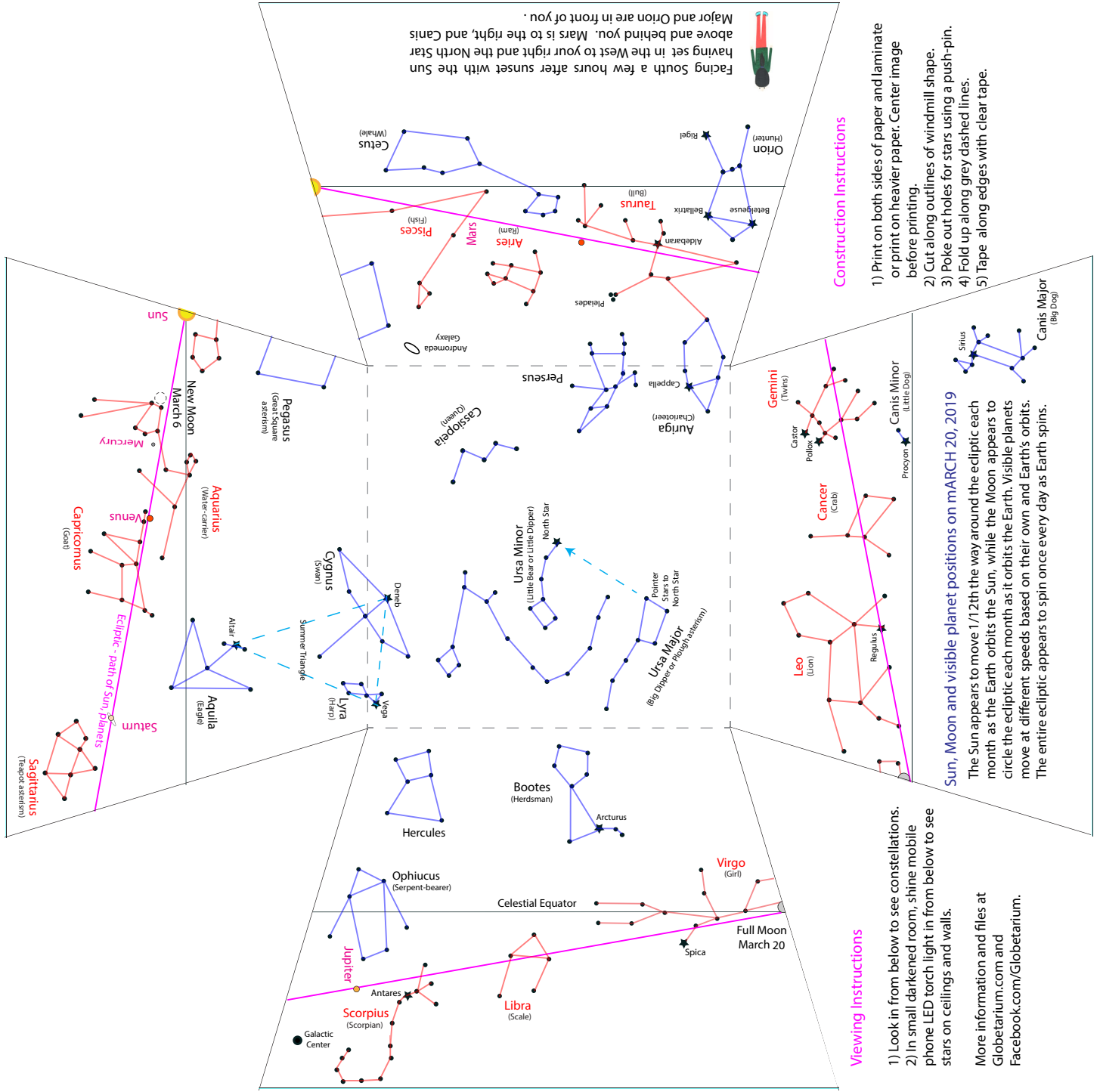
Star finder,
celestial sphere,
pinpoint planetarium
Globetarium.com

Sun and visible planet positions
on March 20, 2019



Know the sky • Know the ecliptic • Know the G

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Construction Instructions

- 1) Print on both sides of paper and laminate or print on heavier paper. Center image before printing.
- 2) Cut along outlines of windmill shape.
- 3) Poke out holes for stars using a push-pin.
- 4) Fold up along grey dashed lines.
- 5) Tape along edges with clear tape.

Viewing Instructions

- 1) Look in from below to see constellations.
- 2) In small darkened room, shine mobile phone LED torch light in from below to see stars on ceilings and walls.

More information and files at Globetarium.com and [Facebook.com/Globetarium](https://www.facebook.com/Globetarium).

Sun, Moon and visible planet positions on mARCH 20, 2019

The Sun appears to move 1/12th the way around the ecliptic each month as the Earth orbits the Sun, while the Moon appears to circle the ecliptic each month as it orbits the Earth. Visible planets move at different speeds based on their own and Earth's orbits. The entire ecliptic appears to spin once every day as Earth spins.

Facing South a few hours after sunset with the Sun above and behind you. Mars is to the right, and Canis Major and Orion are in front of you.

