

The Moon

Face Painted Moon Phase activity

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Setup

Divide the circumference of your circle (2 -3 meters in diameter) by 29, representing the 29 day orbit of the Moon around Earth.
Place a large X in the center of the circle and smaller Xs on the circumference.

Activity Instructions

Earth will stand on the center X facing the Sun and slowly make 29 rotations. For each rotation, the Moon will advance one X.

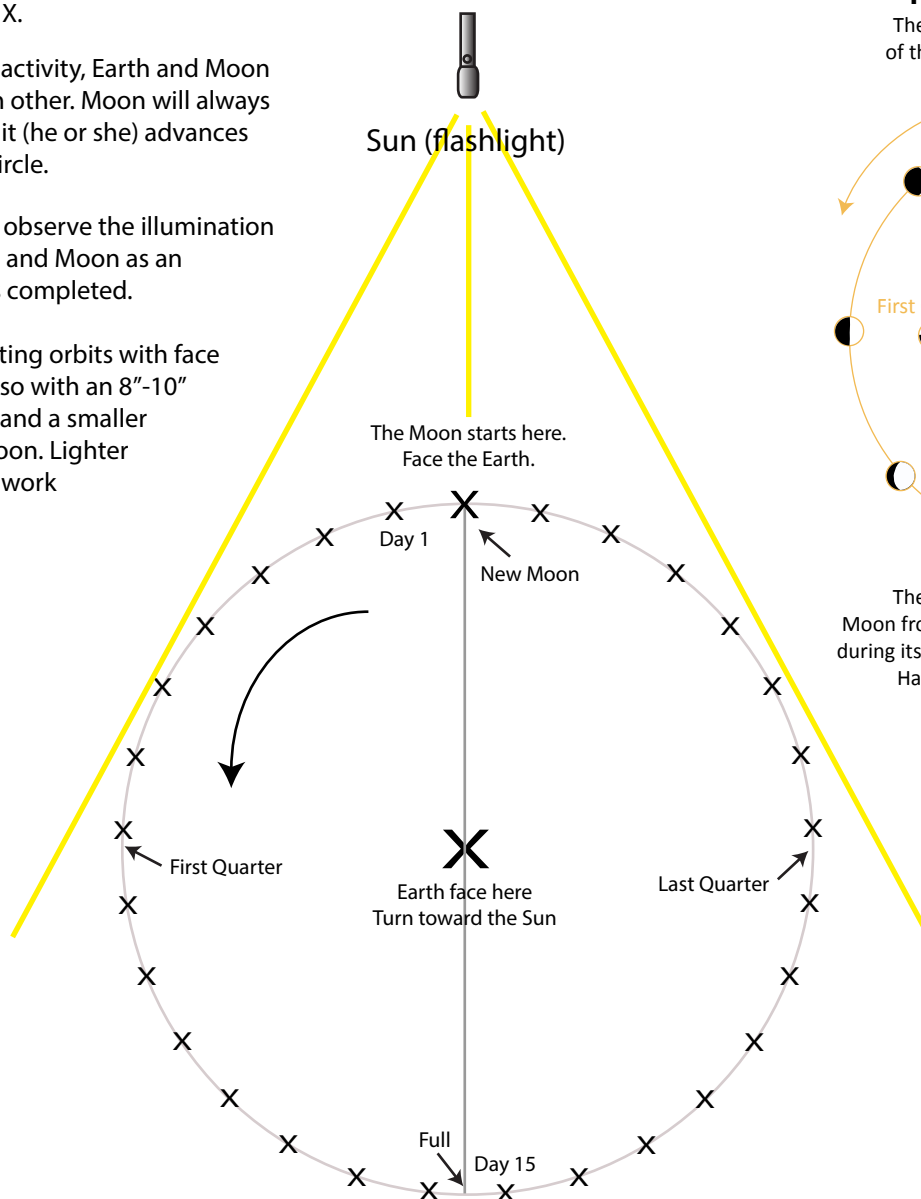
To begin the activity, Earth and Moon will face each other. Moon will always face Earth as it (he or she) advances around the circle.

Students will observe the illumination of both Earth and Moon as an entire orbit is completed.

After completing orbits with face paint, try it also with an 8"-10" ball as Earth, and a smaller ball as the Moon. Lighter colored balls work best.

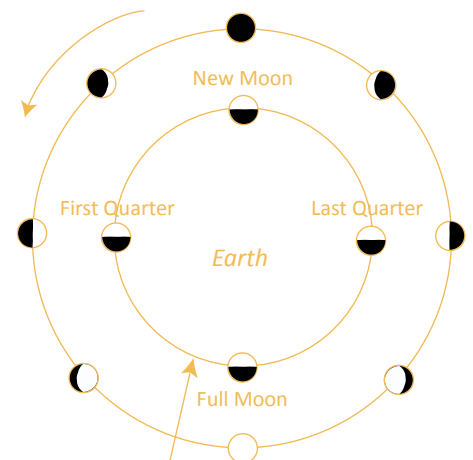
An important point to consider-
In this exercise, Moon and Earth will eclipse one another on each orbit. Why doesn't this happen in reality?

Answer: The Moon's orbit is inclined 5 degrees.



Phase Perspective Key

The outer ring shows the appearance of the Moon's illumination from Earth.



The inner ring shows the position of the Moon from space, looking down on the north pole, during its monthly (29 plus days) orbit around Earth. Half of the Moon is always illuminated.