

periodic

Waxing and Waning

Phases of the Moon

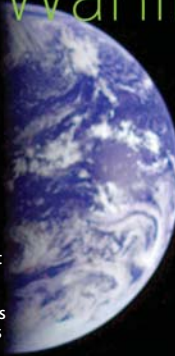
As the moon orbits around the earth, its shape seems to change. We observe the lunar phase changes as a result of seeing the illuminated half of the visible moon at different angles. One half of the moon is always illuminated, but not always visible to the earth. The time between two full moons is about 29 days.

The phases of the moon are named according to whether the moon is waxing (the amount of illuminated surface visible to the earth increases) or waning (the amount of illuminated surface decreases). The eight phases include new moon, waxing crescent, first quarter, waxing gibbous, full moon, waning gibbous, last quarter, and waning crescent.

At new moon, the moon is lined up between the earth and the sun. As the moon moves eastward away from the sun, more of the moon becomes apparent each night. A few days after new moon, a thin crescent appears in the west. The crescent moon waxes (expands) each night. When half of the moon's disc is illuminated, it is called the first quarter moon.

As the days progress, the moon continues to wax. Once more than half of the disc is illuminated, it takes on a "gibbous" shape. The gibbous moon appears to grow each night until we see the full sunlit face of the moon – the full moon. The full moon has always been a source of intrigue. Throughout history, the full moon has been blamed for seizures, suicide, crime, zombies, and other negative lunar myths. The terms lunacy and lunatic derive from such myths.

During the second half of the lunar month, the moon begins to wane. As it reaches the three-quarter point in its month, the moon once again shows us one side of its disc illuminated and the other side is in darkness. However, now the sides are reversed: the side that appeared dark at the first quarter phase is now the illuminated side. As it completes its satellite journey and approaches new moon again, the moon appears to be a waning crescent.



behavior

A

astronomy: With reference to the position of the sun in the sky, when does a full moon rise?

Answer: When the sun sets

Photo courtesy of NASA

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
February 2007 S M T W Th F S 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28	April 2007 S M T W Th F S 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30			1	2	3 Purim (Begins at Sundown)
4	5	6	7 	8 	9 Registration Deadline for April ACT	10 SAT Test Date
11 Daylight Savings Time Begins	12 	13 	14 Pi Day Albert Einstein's Birthday	15 	16 	17 St. Patrick's Day
18	19	20	21 Vernal Equinox	22	23	24
25	26	27	28	29 Registration Deadline for May SAT	30	31

march 2007