

Celestial Calendar 2024



Hello Astronomers!

Space India presents this yearly calendar covering all the major astronomical events that one can witness from the Indian subcontinent. Astronomers all around the world can also record and capture these events along with beautiful astrophotographs. You can also capture and share your photos with us.

For details of each event such as which direction to see, location & coordinates in the sky, timings as per your latitude can be taken from various astronomical apps and softwares. We suggest you use the app/software **STELLARIUM**. It is available across all platforms android/iOS/Windows/MAC.

Major Astronomical Events Key



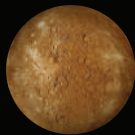
Conjunction

When the Moon or a planet appears especially close either to another planet or to a bright star. Also used when, Moon or Planet sometimes is close to bright Deep sky objects.



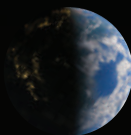
Eclipse

An event that occurs when the shadow of a planet or moon falls upon a second body.



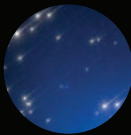
Elongation

The angular distance the Moon or a planet is from the Sun. The inner planets of Mercury and Venus are best seen when at maximum Elongation, and thus are highest above the horizon before sunrise or after sunset.



Equinox

The two times each year, near March 20th and September 22nd, when the Sun is directly overhead at noon as seen from Earth's equator. On an equinox date, day and night are of equal length.



Meteor Shower

An increase in meteor activity at certain times of the year due to Earth passing through a stream of particles along a comet's orbit around the Sun.



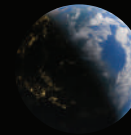
Occultation

When the Moon or a planet passes directly in front of a more distant planet or star.



Opposition

When a planet or asteroid is opposite the Sun in the sky. At such times, the object is visible all night — rising at sunset and setting at sunrise.



Solstice

The two times each year, around June 20th and December 21st, when the Sun is farthest north or south in the sky. At the summer solstice, the day is longest and the night is shortest, and vice versa at the winter solstice.

*Definitions are taken from Sky & Telescope for easier understanding

3rd JAN  Earth at Perihelion	4th JAN  Quadrantids Meteor Shower	8th JAN  Planetary alignment of Mars, Mercury, Venus and Moon	20th JAN  Conjunction of Moon and Pleiades	25th JAN  Full Moon	5th FEB  Moon Occultation of Antares	7th FEB  Planetary alignment of Mars, Mercury, Venus and Moon	15th FEB  Conjunction of Moon and Jupiter	23rd FEB  Conjunction of Venus and Mars	24th FEB  Full Moon
20th MAR  March Equinox	22nd MAR  Conjunction of Venus and Saturn	25th MAR  Full Moon	11th APR  Conjunction of Mars and Saturn	20th APR  Conjunction of Jupiter and Uranus	22nd APR  Lyrids Meteor Shower	24th APR  Full Moon	3rd MAY  Planetary alignment of Mars, Mercury, Saturn and Moon	5th MAY  Eta Aquarids Meteor Shower	5th MAY  Conjunction of Moon and Mars
23rd MAY  Full Moon	3rd JUNE  Conjunction of Moon and Mars	21st JUNE  June Solstice	22nd JUNE  Full Moon	5th JULY  Earth at Aphelion	16th JULY  Conjunction of Uranus and Mars	21st JULY  Full Moon	29th JULY  Celestial alignment of Moon, Mars, Jupiter and Pleiades	12th AUG  Perseids Meteor Shower	15th AUG  Conjunction of Jupiter and Mars
19th AUG  Super Full Moon	5th SEPT  Mercury at Greatest Western Elongation	8th SEPT  Opposition of Saturn	18th SEPT  Super Full Moon	21st SEPT  Opposition of Neptune	22nd SEPT  Autumn Equinox	6th OCT  Conjunction of Moon and Venus	8th OCT  Draconids Meteor Shower	17th OCT  Super Full Moon	21st OCT  Orionids Meteor Shower
24th OCT  Conjunction of Moon and Saturn	16th NOV  Full Moon	17th NOV  Opposition of Uranus	17th NOV  Leonids Meteor Shower	21st NOV  Conjunction of Moon and Mars	8th DEC  Opposition of Jupiter	13th DEC  Geminids Meteor Shower	15th DEC  Full Moon	21st DEC  Winter Solstice	22nd DEC  Ursids Meteor Shower