

2019 CELESTIAL CALENDAR



JAN 21 SUPERMOON The Moon will be at its closest approach to Earth and will look slightly larger and brighter than normal.	JAN 20/21 TOTAL LUNAR ECLIPSE The moon will pass completely through the Earth's shadow, or umbra, and turn a rusty red color during totality.	JAN 22 CONJUNCTION OF VENUS AND JUPITER The two bright planets will appear within 2.4 degrees of each other in the eastern sky just before sunrise.	FEB 18 CONJUNCTION OF VENUS AND SATURN The ringed planet has a close encounter with Venus, within 1.1 degrees. Look to the southeast before sunrise.	FEB 19 SUPERMOON The Moon will be at its closest approach to Earth and will look slightly larger and brighter than normal.	MAR 21 SUPERMOON The Moon will be at its closest approach to Earth and will look slightly larger and brighter than normal.
LATE MAR MARS PASSES NEAR PLEIADES Mars and the Pleiades Star Cluster will appear close to one another in the night sky.	MAY 18 SEASONAL BLUE MOON The Moon is not really blue. This phrase refers to two Full Moons that occur in the same season.	JUNE 10 JUPITER AT OPPOSITION It's the best night of the year to view Jupiter, which will be at its very brightest and visible all night.	JULY 2 TOTAL SOLAR ECLIPSE Day turns to night for observers in parts of the southern Pacific Ocean, central Chile, and central Argentina.	JULY 9 SATURN AT OPPOSITION It's the best night of the year to view Saturn, which will be at its very brightest and visible all night.	JULY 16 PARTIAL LUNAR ECLIPSE A portion of the Moon will darken during this partial eclipse. Viewable in Europe, Africa, central Asia, and the Indian Ocean.
AUG 12/13 PERSEID METEOR SHOWER Up to 60 meteors per hour will appear to radiate from the constellation Perseus.	SEPT 14 HARVEST MOON The full Moon closest to the autumnal equinox is called the Harvest Moon. Take a look at the yellowish-orange Moon low in the sky after sunset.	NOV 11 MERCURY TRANSIT OF THE SUN Mercury's small, dark disk will appear to move across the solar disk. Approved solar glasses or telescope filters are required during the entire transit.	NOV 24 CONJUNCTION OF VENUS AND JUPITER Even closer than their first conjunction in January, Venus and Jupiter appear within 1.4 degrees of one another in the western sky after sunset.	DEC 13/14 GEMINIDS METEOR SHOWER The biggest shower of the year can produce up to 120 meteors per hour. This year, observers will see fewer meteors due to a bright Moon.	DEC 26 ANNULAR SOLAR ECLIPSE Viewable in parts of the Middle East and Asia. Partial eclipse in Asia and northern Australia. Approved solar glasses or telescope filters required during the entire eclipse.

DEEP SKY CHECKLIST

SPRING

- Beehive Cluster (M44)
- Leo Triplet Galaxies (M65, M66, & NGC 3628)
- Whirlpool Galaxy (M51)
- Bode Galaxy (M81)
- Cigar Galaxy (M82)
- Double Star, Mizar & Alcor
- Sombrero Galaxy (M104)
- Globular Cluster (M3)

SUMMER

- Milky Way
- Hercules Cluster (M13)
- Ring Nebula (M57)
- Lagoon Nebula (M8)
- Trifid Nebula (M20)
- Sagittarius Cluster (M22)
- Eagle Nebula (M16)
- Omega Nebula (M17)
- Dumbbell Nebula (M27)
- Albireo Double Star
- Wild Duck Cluster (M11)

AUTUMN

- Andromeda Galaxy (M31)
- Double Cluster (NGC869, NGC884)
- Globular Cluster (M15)

WINTER

- Orion Nebula (M42)
- Pleiades Cluster (M45)
- Beehive Cluster (M44)
- Auriga Open Clusters (M36, M37, M38)
- Lepus Globular Cluster (M79)
- Hyades Cluster



JUPITER

Evening Sky: June - November
 Morning Sky: January - June
 Opposition: June 10



SATURN

Evening Sky: July - December
 Morning Sky: February - July
 Opposition: July 9



MARS

Evening Sky: January - June
 Morning Sky: October - December



VENUS

Evening Sky: January - June
 Morning Sky: October - December
 Greatest Eastern Elongation: January 6



WINTER SOLSTICE Northern Hemisphere: December 21
 LONGEST NIGHT OF THE YEAR Southern Hemisphere: June 21



SUMMER SOLSTICE Northern Hemisphere: June 21
 SHORTEST NIGHT OF THE YEAR Southern Hemisphere: December 21