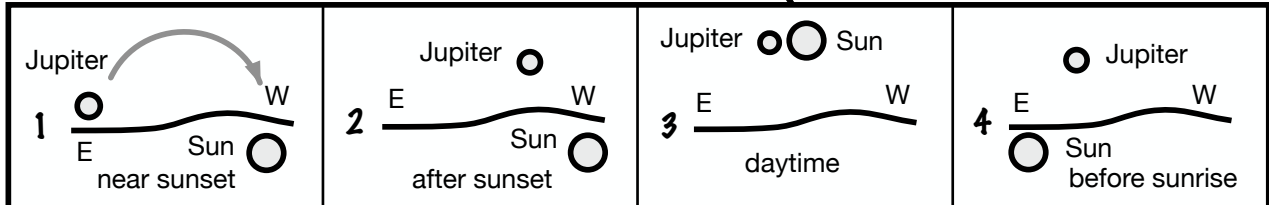
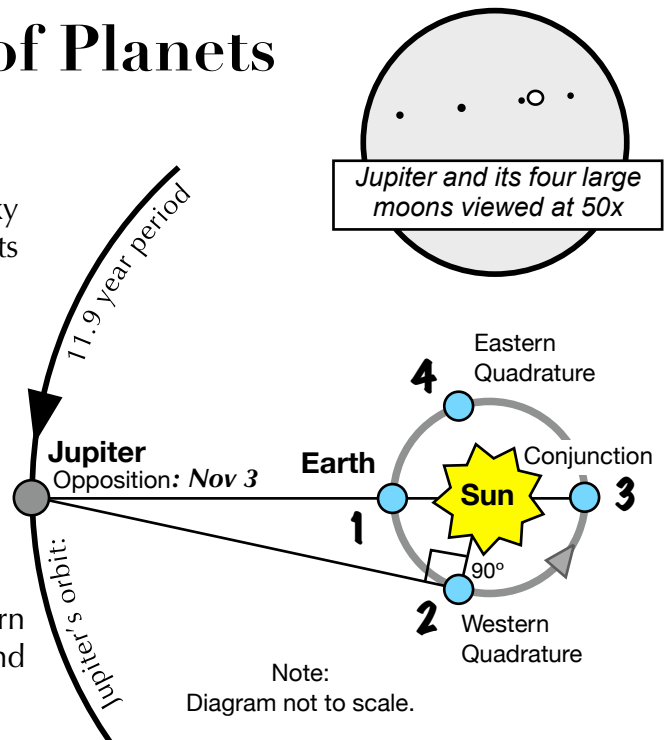




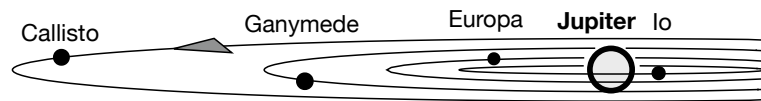
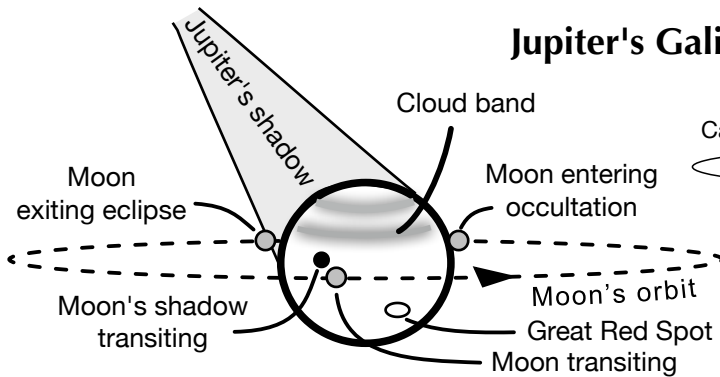
# Jupiter, King of Planets

## Orbital Aspects

- 1 At opposition – when it is opposite the sun in the sky – Jupiter is at its closest to Earth and, hence, at its brightest. It rises near sunset and is visible all night.
- 2 As Earth moves ahead of Jupiter, it is seen moving nightly towards the west after sunset. Eventually, it will set just after sunset.
- 3 At solar conjunction – when Jupiter lives on the farside of the Sun – it appears in the daytime sky near the Sun, and can't be seen.
- 4 As Earth catches up to Jupiter, it is found in the eastern morning sky moving westward away from the Sun, and rising earlier. Eventually, it rises shortly after sunset.



## Jupiter's Galilean moons



### Relative orbital distances of the Galilean moons

- As the four moons orbit Jupiter, they change their relative positions with each other.
- They are seen as up to four pinpoints on either side of the planet, all in a line.

### A small telescope can show:

- The planet's slight oval shape
- Cloud bands on Jupiter
- Moon entering/exiting occultation
- Moon entering/exiting eclipse
- Moon transiting the planet
- Moon's shadow transiting the planet
- The Great Red Spot rotates into view every 10 hours.

Galilean Moon	Diameter (miles)	Distance (miles)	Period (days)	Opposition Magnitude
Io	2260	262,000	1.8	5.0
Europa	1940	416,000	3.6	5.3
Ganymede	3270	665,000	7.2	4.6
Callisto	2990	1,170,000	16.7	5.7

