

Moon Ganymede



Picture (Ganymede):

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[https://en.wikipedia.org/wiki/Ganymede_\(moon\)#/media/File:Ganymede_-_Perijove_34_Composite.png](https://en.wikipedia.org/wiki/Ganymede_(moon)#/media/File:Ganymede_-_Perijove_34_Composite.png)

The name of the moon is derived from the youth Ganymede from Greek mythology. Ganymede is the cupbearer of the gods and a lover of Zeus (Roman: Jupiter). He is the only male moon of Jupiter. It has a bound rotation, like the other Jupiter moons. Its orbit is in a 1:2 resonance with Europa and a 1:4 resonance with Io. Ganymede is the largest moon in the solar system. It is larger than the planet Mercury, but lower in mass. The surface can be divided into two distinct regions: a geologically very old, dark region with many impact craters and a somewhat younger, lighter region with trenches and faults. The two regions are due to tectonic plate activity. There are two continental plates. Thus, Ganymede resembles planet Earth in terms of tectonics. Ganymede is therefore the only moon in the solar system with plate tectonics. Ganymede has a relatively small core of iron or iron sulphide, followed by a shell of silicate rocks. Above this is a slightly salty ocean with more water than in all of Earth's oceans combined. The outermost layer is a hard crust of water ice. There is evidence of an extremely thin atmosphere of oxygen. Ganymede is the only moon with its own magnetic dipole field.

Important data of Ganymede:

Mean orbit radius:	1,070,400 km
Periapsis – Apoapsis:	1,069,300 km – 1,071,500 km
Eccentricity	0.001
Inclination (ecliptic):	2.21°
Orbital period (sidereal):	7.16 d
Average orbital speed:	10.88 km/s

Mean diameter:	5,262.4 km
Mass:	about 0.025 Earth masses ($1.48 \cdot 10^{23}$ kg)
Mean density:	1.940 g/cm ³
Synodic rotation period:	7.16 d
Inclination (Jupiter) :	0.18°
Surface gravity:	1.42 m/s ²
Escape velocity:	2,700 m/s
Surface temperature:	-203 until -121 °C (70 until 152 K)

Link: [https://en.wikipedia.org/wiki/Ganymede_\(moon\)](https://en.wikipedia.org/wiki/Ganymede_(moon))