

Planet Saturn

Diameter: 120,536 km - here: 121 mm

Mass: $5.7 \cdot 10^{26}$ kg

Surface temperature: -139 °C (average)

Distance to the Sun: 1.43 billion km - here: 1.43 km

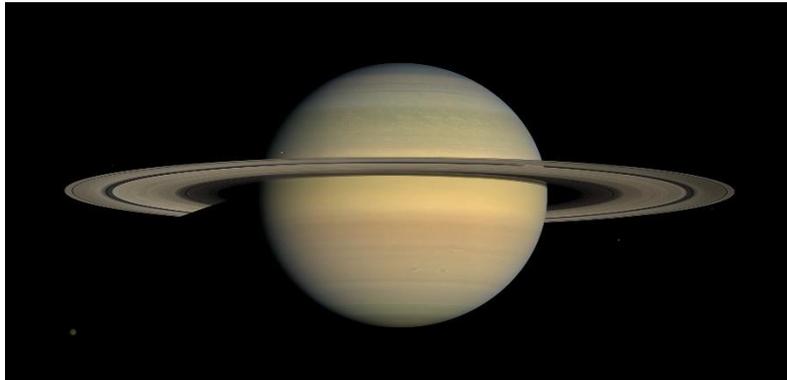
Orbital period: 29.5 years

Number of moons: 82

Sponsored by:

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Planet Saturn



Picture (Saturn):

Author: NASA / JPL / Space Science Institute

https://upload.wikimedia.org/wikipedia/commons/c/c7/Saturn_during_Equinox.jpg

From its appearance, Saturn (astronomical symbol ♄) is certainly one of the best-known objects in the solar system. The name Saturn comes from the Roman mythology. Saturn does not denote a god, but the supreme ruler of the Titans. Saturn, however, is the father of Jupiter, with whom he waged war for supremacy and lost. Characteristic is its ring system, which consists of billions of small pieces of rock or ice (millimetre-sized up to some meters). None of the other planets has such a distinctive and well visible ring system. It is the second largest planet of the solar system and belongs to the gas planets. It consists mainly of hydrogen and has the lowest density of all planets. Its density is lower than that of water. It rotates very fast, similar to Jupiter. Its largest moon, Titan, is the only moon with an atmosphere. Another special feature are the moons Janus and Epimetheus. They orbit Saturn on two almost

identical orbits. Every four years, they approach each other so closely that their gravitational forces interact and they exchange orbits. Saturn has a total of 146 moons.

Important data of Saturn:

Semi-major axis:	9.58 AU (1,433.5 mio. km)
Perihelion – Aphelion:	9.04 – 10.12 AU
Eccentricity:	0.056
Neigung der Bahnebene:	2.48°
Sidereal orbit period:	29.46 a
Average orbital speed:	9.69 km/s
Smallest – biggest Earth distance:	7.991 – 11.086 AU
Equator diameter:	120,536 km
Polar diameter:	108,728 km
Mass:	about 95 Earth masses ($5,685 \cdot 10^{26}$ kg)
Mean density:	0.69 g/cm ³
Surface gravity:	10.44 m/s ²
Escape velocity:	35.5 km/s
Sidereal Rotation period:	10 h 33 min
Axis tilt:	26.73°
Temperature (medium):	134 K (-139 °C)

Link: <https://en.wikipedia.org/wiki/Saturn>



English: Moons:

Moon_Tethys:

https://astrowis.de/wp-content/uploads/Mond_Thetys_englisch.pdf

Moon_Dione:

https://astrowis.de/wp-content/uploads/Mond_Dione_englisch.pdf

Moon_Rhea:

https://astrowis.de/wp-content/uploads/Mond_Rhea_englisch.pdf

Moon_Titan:

https://astrowis.de/wp-content/uploads/Mond_Titan_englisch.pdf

Moon_Iapetus:

https://astrowis.de/wp-content/uploads/Mond_Iapetus_englisch.pdf

Moon_Enceladus:

https://astrowis.de/wp-content/uploads/Mond_Enceladus_englisch.pdf

Moon_Mimas:

https://astrowis.de/wp-content/uploads/Mond_Mimas_englisch.pdf