

Saturn is the sixth [planet](#) from the [Sun](#) and the second largest in the [Solar System](#), after [Jupiter](#). It is a [gas giant](#), with an average radius of about nine times that of [Earth](#).^{[27][28]} It has an eighth the average density of Earth, but is over 95 times more massive.^{[29][30][31]} Even though Saturn is almost as big as Jupiter, Saturn has less than a third its mass. Saturn orbits the Sun at a distance of 9.59 [AU](#) (1,434 million [km](#)), with an [orbital period](#) of 29.45 years.

Saturn's interior is thought to be composed of a rocky core, surrounded by a deep layer of [metallic hydrogen](#), an intermediate layer of [liquid hydrogen](#) and [liquid helium](#), and an outer layer of gas. Saturn has a pale yellow hue, due to [ammonia](#) crystals in its upper atmosphere. An [electrical current](#) in the metallic hydrogen layer is thought to give rise to Saturn's planetary [magnetic field](#), which is weaker than Earth's, but has a [magnetic moment](#) 580 times that of Earth because of Saturn's greater size. Saturn's magnetic field strength is about a twentieth that of Jupiter.^[32] The outer [atmosphere](#) is generally bland and lacking in contrast, although long-lived features can appear. [Wind speeds](#) on Saturn can reach 1,800 kilometres per hour (1,100 miles per hour).

The planet has a bright and extensive [system of rings](#), composed mainly of ice particles, with a smaller amount of rocky debris and [dust](#). At least [274 moons](#)^{[33][34][35][36][37]} orbit the planet, of which 63 are officially named; these do not include the hundreds of [moonlets](#) in the rings. [Titan](#), Saturn's largest moon and the second largest in the Solar System, is larger (but less massive) than the planet [Mercury](#) and is the only moon in the Solar System that has a substantial atmosphere.^[38]