

Overview of the locations of the planets and the location of the sun can be found here:

[https://astrowis.de/wp-content/uploads/Planetenweg\\_englisch.pdf](https://astrowis.de/wp-content/uploads/Planetenweg_englisch.pdf)

Show neighboring planets on the map:

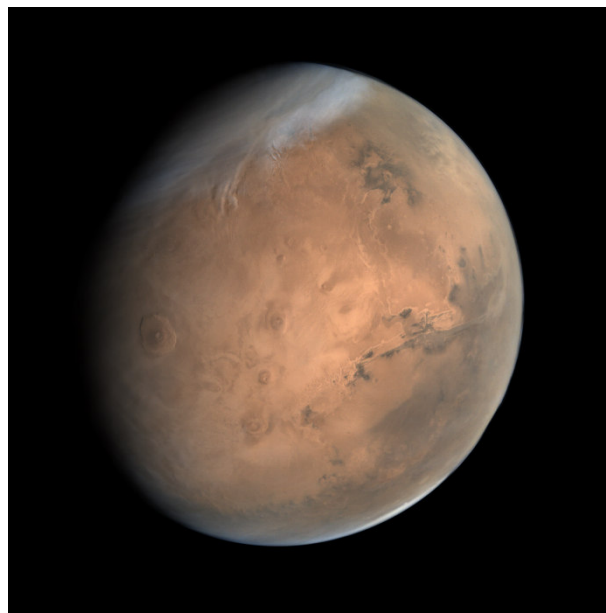
**Earth:**

<https://www.openstreetmap.org/?mlat=52.243902&mlon=14.411993#map=17/52.24390/14.41199>

**Jupiter:**

<https://www.openstreetmap.org/?mlat=52.238526&mlon=14.409047#map=17/52.23853/14.40905>

# Planet Mars



Picture (Mars):

Author: Justin Cowart

[https://upload.wikimedia.org/wikipedia/commons/0/0e/Tharsis\\_and\\_Valles\\_Marineris\\_-\\_Mars\\_Orbiter\\_Mission\\_%2830055660701%29.png](https://upload.wikimedia.org/wikipedia/commons/0/0e/Tharsis_and_Valles_Marineris_-_Mars_Orbiter_Mission_%2830055660701%29.png)

Mars is named after the Roman god of war (astronomical symbol:  $\♂$ ). Mars is the outermost of the Earth-like planets in the solar system. It is also called the Red Planet because of its red colour, which is caused by iron oxide. Because of the inclination of its rotational axis, it has seasons, like Earth. In addition, a Martian day is almost the same length as a day on Earth. These similarities have led to a variety of space activities to explore Mars. It is hoped to encounter earlier life forms here because of the presence of water in solid form (ice). There are also future visions of colonizing Mars. Mars has two small moons Phobos and Deimos (fear and terror, appropriate to war). In addition, the highest mountain in the solar system is on Mars, the volcano Olympus Mons (26.4 km high).

## Important data of the Mars:

Semi-major axis:	1.52 AE (227.99 mio. km)
Perihelion – Aphelion:	1.381 - 1.666 AE

Eccentricity:	0.094
Ecliptic Inclination:	1.850°
Orbital period (sidereal):	686.980 d
Average orbital speed:	24.13 km/s
Smallest – biggest earth distance:	0.37 – 2.68 AE
Equator diameter:	6,792.4 km
Pole diameter:	6,752.4 km
Mass:	about 0.108 Earth masses ( $6.419 \cdot 10^{23}$ kg)
Mean density:	3.93 g/cm <sup>3</sup>
Surface gravity:	3.69 m/s <sup>2</sup>
Escape velocity:	5.03 km/s
Sidereal rotation period:	24 h 37 min 22 s
Axis tilt:	25.19°
Surface pressure:	$6 \cdot 10^{-3}$ bar
Temperature (min. - medium - max.):	140 K (–133 °C) - 218 K (–55 °C) - 300 K (+27 °C)

**Link:** <https://en.wikipedia.org/wiki/Mars>