

Definitions and Units

- **Day** time it takes for a planet to complete one rotation about its axis
- **Year** time it takes for a planet to complete one orbit around its star
- **<surface T>** average temperature at the planet's surface
- $^{\circ}\text{C}$ (“degrees Celsius”) = $(^{\circ}\text{F}-32)\times 5\div 9$
- **1 km** (“kilometer”) = **0.62 miles**

Terrestrial Planets



1. MERCURY

“Smallest planet”
Craters

1 Year on Mercury = 88 Earth days
1 Day on Mercury = 58.6 Earth days
<surface T> = 117°C day/ -170°C night
<distance from the Sun> = 58 million km
Number of moons = 0



3. EARTH

“The Blue Planet”
Water
Life

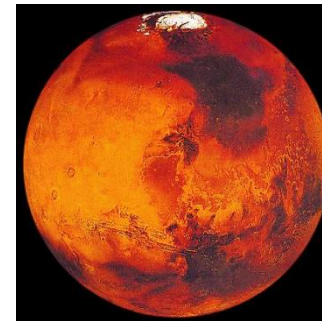
<surface T> = 15°C
<distance from the Sun> = 150 million km
Number of moons = 1



2. VENUS

“Sister planet”
CO₂ atmosphere
Hottest planet

1 Year on Venus = 225 Earth days
1 Day on Venus = 243 Earth days
<surface T> = 460°C
<distance from the Sun> = 108 million km
Number of moons = 0

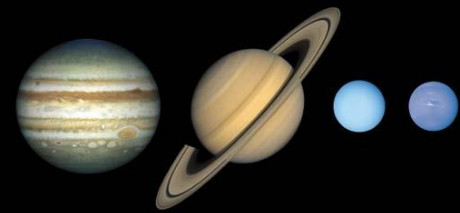


4. MARS

“Red planet”
Polar ice caps
Dust storms

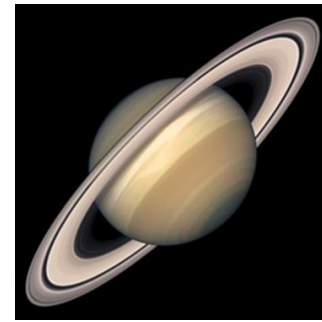
1 Year on Mars = 687 Earth days
1 Day on Mars = 24.6 hours
<surface T> = -63°C
<distance from the Sun> = 249 million km
Number of moons = 2

Jovian Planets



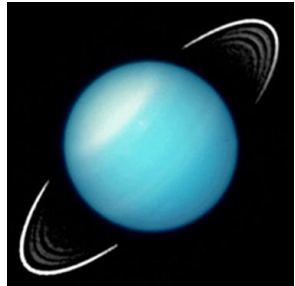
5. JUPITER
Gas Giant
“Largest planet”
Giant storms
Fastest rotation

1 Year on Jupiter = 11.9 Earth years
1 Day on Jupiter = 9 hours 55 minutes
<distance from the Sun> = 778 million km
<T> = -110°C Number of moons = 95



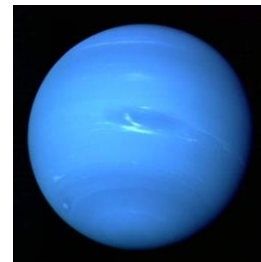
6. SATURN
Gas Giant
“Ring planet”
Metal-rock core?

1 Year on Saturn = 29.5 Earth years
1 Day on Saturn = 10 hours 33 minutes
<surface T> = -140°C
<distance from the Sun> = 1457 million km
Number of moons = 146!



7. URANUS
Ice Giant
42 Earth years long summer...
Coldest planet

1 Year on Uranus = 84 Earth years
1 Day on Uranus = 17 hours 14 minutes
<surface T> = -224°C
<distance from the Sun> = 2870 million km
Number of moons = 28



8. NEPTUNE
Ice Giant
Fastest winds

1 Year on Neptune = 164 Earth years
1 Day on Neptune = 16 hours 6 minutes
<surface T> = -201°C
<distance from the Sun> = 4498 million km
Number of moons = 16