

The Solar System & The Jupiter and Saturn Conjunction

By Zainab Mohammed



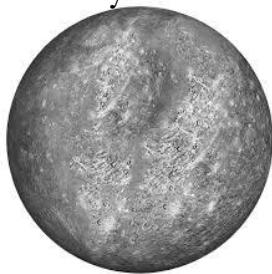
Introduction to the Solar System

The Solar System was formed 4.6 billion years ago. Each planet has their own orbit. Mercury, Venus, Earth, and Mars are called terrestrial planets which means rocky planets that have rocks or metals and for the 2 big planets (Jupiter and Saturn) are called gas giants, Uranus and Neptune are ice giants. There are also smaller things like the asteroid belt which is between Mars and Jupiter made out of rock and metal. Beside Neptune's orbit is a belt which is called the Kuiper belt which is made out of composed ices. There are also dwarf planets in the Solar system like Pluto, Ceres, and Eris. The Sun is the main mass of the Solar system.



The Planets

Mercury



Temp: min - 170 °C,
max + 449 °C,
Size: 2 440 km

Venus



Temp: min +465 °
C, max + 465 °C
Size: 6 052 km

Earth



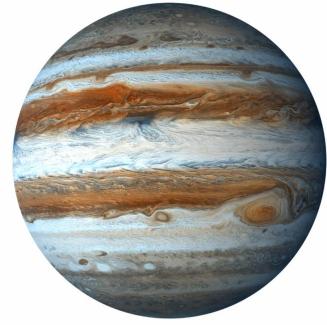
Temp: min - 89 °
C, max + 58 °C
Size: 6 371 km

Mars



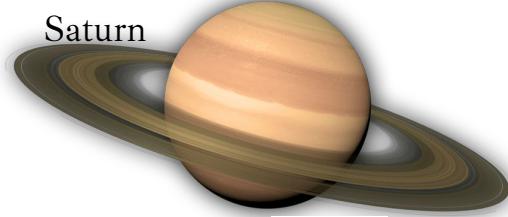
Temp: min -125 °
C, max + 20 °C
Size: 3 390 km

Jupiter



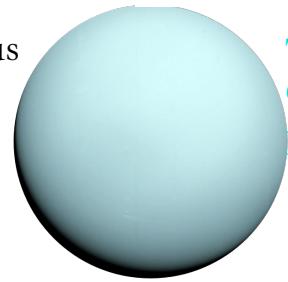
Temp: min - 145 °C,
max +24 000 °C,
Size: 69 911 km

Saturn



Temp: min - 173 °C, max
+ 57 °C,
Size: 58 232 km

Uranus

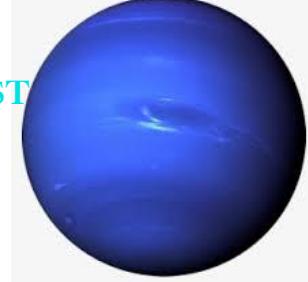


The
COLDEST
planet!

Temp: min - 224 °C,
max + 11 700 °C,
Size: 25 362 km

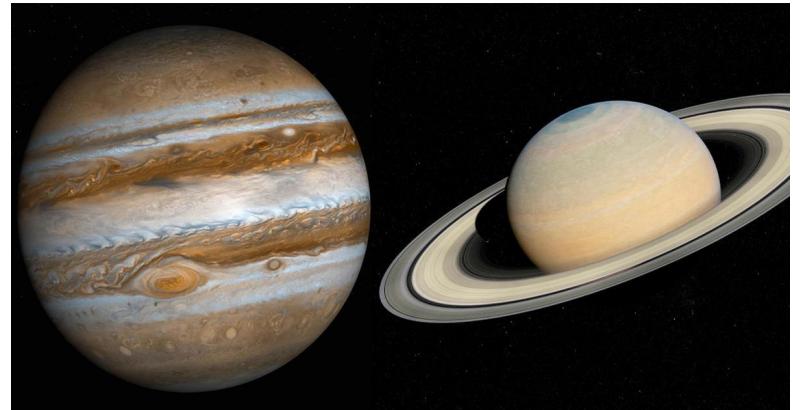
Temp: min - 200 °C,
max - 218 °C,
Size: 24 622 km

Neptune



The Jupiter and Saturn Conjunction

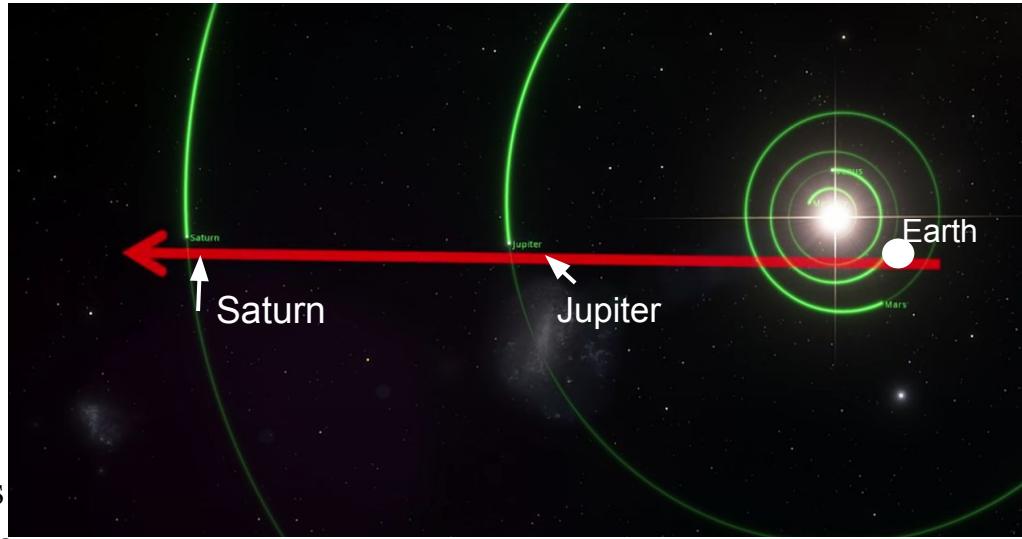
The Jupiter and Saturn Conjunction is one of the great conjunctions in history. The great conjunction is visible to the “Naked Eye”. In 2020 the Great conjunction of these two planets will be closest since 1623 and the most observable in 1226. The 2020’s Conjunction of Jupiter and Saturn won’t be the same until March 15 2080. It only happens once in 20 years because Jupiter and Saturn’s years are longer than ours. Here is the timeline:



Questions

Main Question: How does it happen?

It happens by every 20 years because not all the orbits of the planets are directly flat on it some of the planets' orbits slant more than others. When every year Saturn completes about 12 degrees of its orbit around the sun and Jupiter completes about 30 degrees of its orbit. In one year though closes the gap in the middle of itself by 18 degrees. This photo represents what is happening



Why am I interested in this?

I am interested in this because this one of the greatest conjunctions in history.

Interesting Facts:

- Did you know that for this Great Conjunction people call it the “Christmas Star”?
- Did you know Jupiter’s Great red spot is shrinking?
- Did you know Saturn is the only planet that can float on water?
- Do you know that Jupiter has 79 known moons orbiting the sun?

THANK YOU VERY MUCH FOR SEEING MY PRESENTATION! :)