

# Our Solar System

Relative size and interesting facts for all known objects over 1500 km in diameter (and two notable others). Positions not to scale; approximately true color.



ALMA COLLEGE

## Saturn

GAS GIANT PLANET

The rings of Saturn consist of innumerable small clumps of ice and dust orbiting the planet together.

### LARGEST MOONS OF SATURN

Iapetus: A 13 km high ridge runs halfway around its equator.  
Titan: Has rivers, lakes, and rain made of liquified natural gas.  
Rhea: Giant ice cliffs from tectonic activity streak its surface.

### LARGEST MOONS OF URANUS

Titania: Enormous canyons: one goes nearly from equator to pole.  
Oberon: Its ancient surface is almost entirely covered with craters.

## Uranus

GAS GIANT PLANET

The axis of rotation of Uranus is tilted sideways, probably due to a collision with an Earth-sized object soon after it formed.

## Neptune

GAS GIANT PLANET

Neptune has very active weather systems, including the strongest sustained winds in the solar system: up to 2100 km/h.

## Pluto

DWARF PLANET—KUIPER BELT

Valleys carved by nitrogen glaciers and tall mountains of ice border a windswept plain.

### Charon, A MOON OF PLUTO,

and Pluto itself mutually orbit a point between the two. (Separation and orbits shown to scale.)

### Triton, A MOON OF NEPTUNE

Orbits backward and has geysers of liquid nitrogen.

# Sun

MAIN SEQUENCE STAR

The Sun's hot plasma twists its powerful magnetic field into knots, causing sunspots and intense solar flares.

## Mercury

TERRESTRIAL PLANET

Mercury rotates so slowly that sunrise to sunset lasts a full Mercury year (about 88 Earth days).

## Venus

TERRESTRIAL PLANET

Venus's thick CO<sub>2</sub> atmosphere and sulfuric acid clouds trap heat like a greenhouse: its surface is hot enough to melt lead!

## Earth

TERRESTRIAL PLANET

On this tiny planet, alone in the vastness of space, every person you've ever loved has lived out their lives.

## Mars

TERRESTRIAL PLANET

The ice caps of Mars grow a layer of dry ice each winter. In spring it turns back into CO<sub>2</sub> gas, causing 400 km/h winds and global dust storms.

## Ceres

DWARF PLANET—ASTEROID BELT

Ceres contains 1/3 of the mass of the entire asteroid belt.

## Jupiter

GAS GIANT PLANET

Jupiter's ammonia cloud bands include the Great Red Spot, a vast vortex storm that has persisted for hundreds of years.

### The Moon (OF EARTH)

Probably formed when a Mars-sized object collided with the early Earth.

### LARGEST MOONS OF JUPITER

Io: Over 400 active volcanoes due to Jupiter's gravity.  
Europa: Has an ocean of liquid water under its ice crust.  
Ganymede: So large that it creates its own magnetic field.  
Callisto: Stable surface and low radiation due to its wide orbit.

