#### SOLAR SYSTEM

The solar system formed **4.6 billion years ago** is a collection of planets, moons, asteroids, comets, dust, and gas that orbit our local star, the Sun.

It includes the rocky inner planets **Mercury, Venus, Earth, and Mars**; the gas giants **Jupiter** and **Saturn**; and the ice giants **Uranus** and **Neptune**.

Between Mars and Jupiter is a collection of asteroids known as the asteroid belt, while beyond Neptune is where small icy bodies, like Pluto and comets, live.

## SUN & MOON

Our Sun is a 4.5 billion-year-old star – a hot glowing ball of hydrogen and helium at the <u>center of our solar system</u>.

The Sun is about 93 million miles (150 million kilometers) from Earth.

The Moon is Earth's only natural satellite and the fifth largest moon in the solar system.

The Moon's distance from Earth is about 240,000 miles (385,000 km).

# EIGHT PLANETS

| <b>Rocky planets</b>                              | Gas giants  |
|---|---|
| Mercury   | Jupiter   |
| Venus   | Saturn  |
| Earth   | Uranus  |
| Mars  | Neptune   |
| They are collectively called inner planets(MVEM). | They are collectively called outer planets(JSUN). |

## MERCURY & VENUS



The **smallest planet** in our solar system and **nearest** to the Sun, Mercury is only **slightly larger** than Earth's Moon.

Venus is the **second planet** from the Sun and is the **hottest planet** even if mercury is closest to the sun.

#### EARTH & MARS

The **third planet** from the Sun is the fifth largest planet in the solar system in terms of size and mass, and the planet is known to harbor life. Mars, the **fourth planet** from the sun, is famed for its rusty red appearance, giving the name **red planet** which is a cold, desert world with a very thin atmosphere.

### JUPITER & SATURN

Jupiter is the fifth planet from the sun and the largest in the solar system. It is a gas giant with a mass more than two and a half times that of all the other planets in the solar system combined, but slightly less than onethousandth mass of the sun.

Saturn is the sixth planet from the Sun and the second-largest planet in our solar system made mostly of hydrogen and helium.

Saturn has rings, the rings we see are made of groups of tiny ringlets that surround Saturn.

## URANUS & NEPTUNE

Uranus is made of water, methane, and ammonia fluids above a small rocky center with an atmosphere of hydrogen and helium. The methane makes Uranus blue.

It also has **faint rings**. The inner rings are narrow and dark. The outer rings are brightly colored and easier to see. It **rotates on its side**. It's the **last of the planets** in our solar system. Neptune is **made of a thick soup of water, ammonia, and methane** over an Earth-sized solid center.

