

A composite image of various celestial bodies in space. At the top left is Earth, showing blue oceans and white clouds. To its right is a pale blue planet, likely Uranus. Further right is a large, orange, cratered planet, likely Mars. Below Mars is a greyish-brown planet, likely Mercury. To the right of Mercury is a bright blue planet, likely Neptune. In the top right corner is a grey, cratered moon. In the bottom left is Saturn, showing its rings and a pale yellowish planet. In the bottom center is the Sun, a bright yellow star with several dark spots. To the right of the Sun is a large, striped planet, likely Jupiter. The background is a dark, starry space with some nebulae.

The Planets

Mercury

- ☐ Mercury is the closest planet to the Sun

- ☐ It takes Mercury 176 Earth days to complete a rotation around its axis and 88 days to complete a revolution around the Sun, meaning that a day is longer than a year on Mercury

- ☐ Mercury revolves around the Sun at 112,000mph, which is the fastest of all planets

- ☐ Has no rings or moons

- ☐ Although Mercury is the closest to the Sun, it is not as hot as Venus

- ☐ Has a molten core

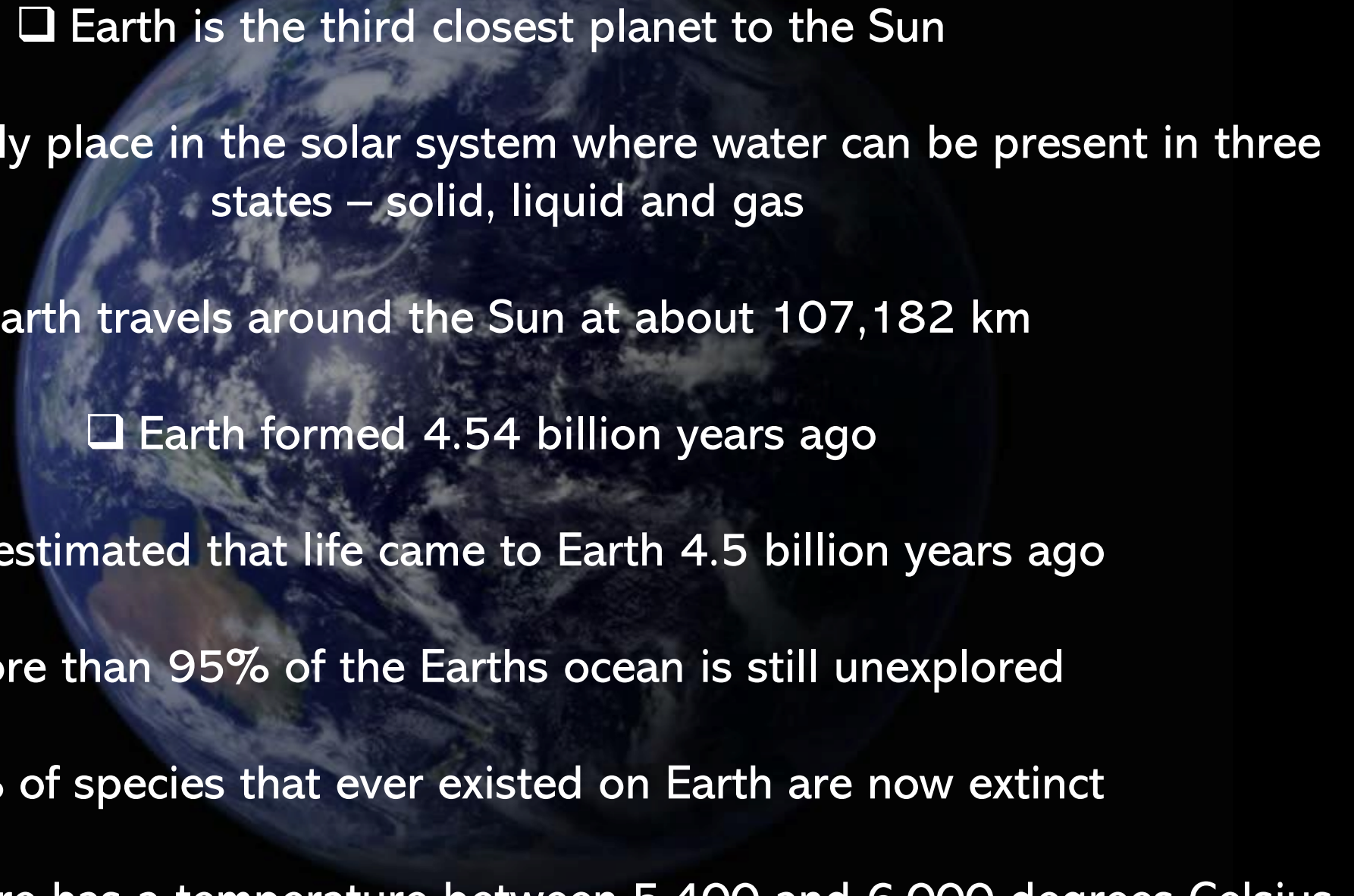
- ☐ Has organic material and water ice

- ☐ Has the most craters

Venus

- ❑ Venus is the second closest planet to the Sun
- ❑ Named after the goddess of love and beauty
 - ❑ Has no rings or moons
- ❑ Hottest planet in the solar system at about 462 degrees Celsius
 - ❑ Revolves anti-clockwise but rotates clockwise
 - ❑ Venus has active volcanos
- ❑ The atmosphere and surface of Venus is intolerable to both humans and machines
- ❑ Venus takes 225 earth days to make a complete revolution around the Sun and 243 days to complete a rotation meaning that a day is longer than a year
 - ❑ Venus is slightly smaller than Earth

Earth

- ❑ Earth is the third closest planet to the Sun
 - ❑ Earth is the only place in the solar system where water can be present in three states – solid, liquid and gas
 - ❑ Earth travels around the Sun at about 107,182 km
 - ❑ Earth formed 4.54 billion years ago
 - ❑ It is estimated that life came to Earth 4.5 billion years ago
 - ❑ More than 95% of the Earth's ocean is still unexplored
 - ❑ 99% of species that ever existed on Earth are now extinct
 - ❑ Earth's inner core has a temperature between 5,400 and 6,000 degrees Celsius
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Mars

- ❑ Mars is the fourth closest planet to the Sun
- ❑ Mars is 227.9 million kilometres from the Sun
- ❑ At the equator, temperatures may get up to a maximum of 20 degrees and drop down to around -73 degrees
- ❑ Olympus Mons is the highest peak in the entire solar system reaching 21 km high, on Mars
- ❑ One day on Mars is equivalent to 24 hours and 37 minutes making it 37 minutes longer than a regular Earth day
 - ❑ Mars has a very thin atmosphere
- ❑ **Jupiter** can influence the orbit of Mars due to its immense mass

Jupiter

- ❑ Jupiter is the fourth furthest planet from the Sun
- ❑ Jupiter consists of about 90% of hydrogen and 10% of helium with an admixture of other gasses
- ❑ The whole Earth could be hidden in the Great Red spot, a stable atmospheric vortex that is the largest hurricane in the Solar System
 - ❑ The existence of life is not fully excluded in some parts of Jupiter's atmosphere
 - ❑ There are often powerful storms and hurricanes
- ❑ A day on Jupiter lasts a little less than 10 hours but the year is about 11.8 standard years
- ❑ The powerful gravity attracts lots of comets and asteroids rushing from the outer Solar System

Saturn



- ❑ Saturn is the third furthest planet from the Sun

- ❑ Saturn has 63 known moons

- ❑ A year on Saturn is equal to 29.5 Earth years

- ❑ Saturn is the only planet in the Solar System that is less dense than water

- ❑ A day on Saturn is equal to 10 hours and 14 minutes in Earth days

- ❑ Saturn's rings are made of water, ice, rocks, dust and other chemicals

- ❑ The temperature on Saturn behind the clouds is at -274 degrees Celsius

- ❑ Titan is Saturn's only moon which has an atmosphere, it is also bigger than **Mercury**

- ❑ The day of the week, Saturday, is named after Saturn

Uranus

- ❑ Uranus is the second furthest planet from the sun

- ❑ People have seen Uranus as early as 128 BC

- ❑ It rains diamonds on Uranus due to constant pressure causing the atmospheres abundance of methane to break down resulting in carbon atoms condensing into diamond crystals

- ❑ Although *Neptune* has a longer distance from the Sun, Uranus has the coldest temperature

- ❑ Uranus orbits the Sun on its side

- ❑ Uranus has 13 faint rings

- ❑ It has 27 moons

- ❑ One of its moons, Miranda, has the tallest known cliff in the solar system

Neptune

- ❑ Neptune is the furthest planet from the Sun
- ❑ The color of Neptune is blue due to the presence of methane; however, *Uranus* is a greenish-blue
 - ❑ Neptune has 6 rings and 13 moons
 - ❑ There are no solid surfaces on Neptune
- ❑ The average surface temperature of Neptune is -214 degrees Celsius
- ❑ The length of a day on Neptune is 16 hours and a year is 164.77 years
 - ❑ Neptune's atmosphere is thick and stormy
 - ❑ Neptune's moons are names after Greek gods