

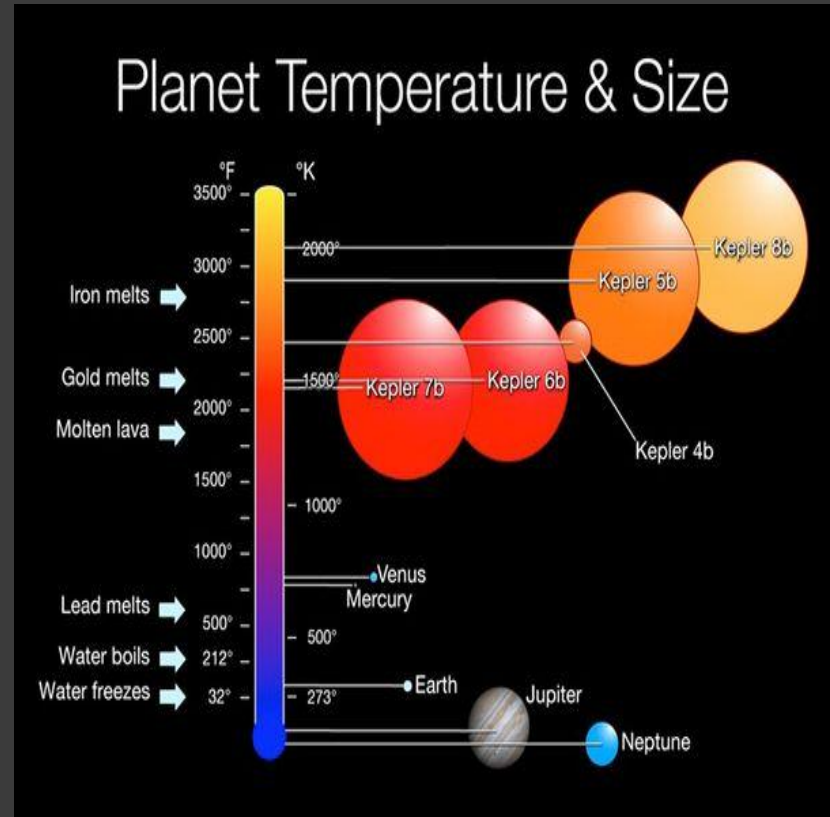
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Earth and Space Science
Grade Level: 8
March 7, 2012

PLANETS AND SPACE SCIENCE

What You Will Learn




Sizes of planets in accordance with one another



Characteristics of the planets in the Milky Way

Before Our Journey, Know these Terms...

- ◎ **Galaxy**- a large system of stars held together by mutual gravitation and isolated from similar systems by vast regions of space.
- ◎ **Light Year**- unit by which intergalactic distances are measured. (A light year is 5,865,696,000,000 miles .)
- ◎ **Planet**-Also called major planet; any of the eight large heavenly bodies revolving about the sun and shining by reflected light
- ◎ **Dwarf Planet** -a spherical body revolving about the sun, similar to a planet but not large enough to gravitationally clear its orbital region of most or all other celestial bodies.



What can you tell me about Outer Space?

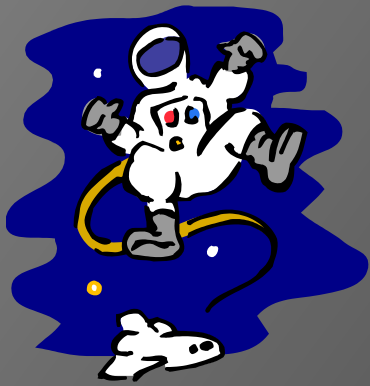
What's it like? Are other planets like
Earth? Do aliens really exist on other
planets?

Let us journey into Outer Space...



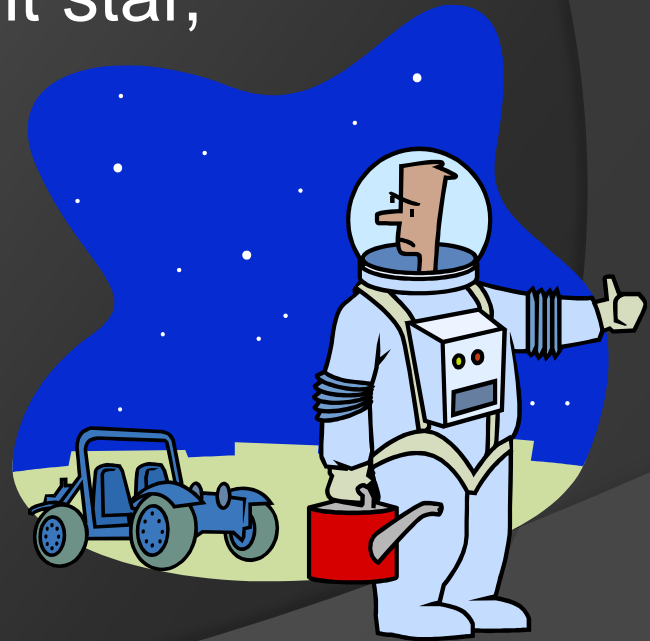


We will be covering the planets in the order they appear from the sun. Can you tell me the order of the planets?



Attention explorers, our first stop is not a planet, but an ever important star, especially for us. It is....

THE SUN 🔔



Our First Stop: The Sun

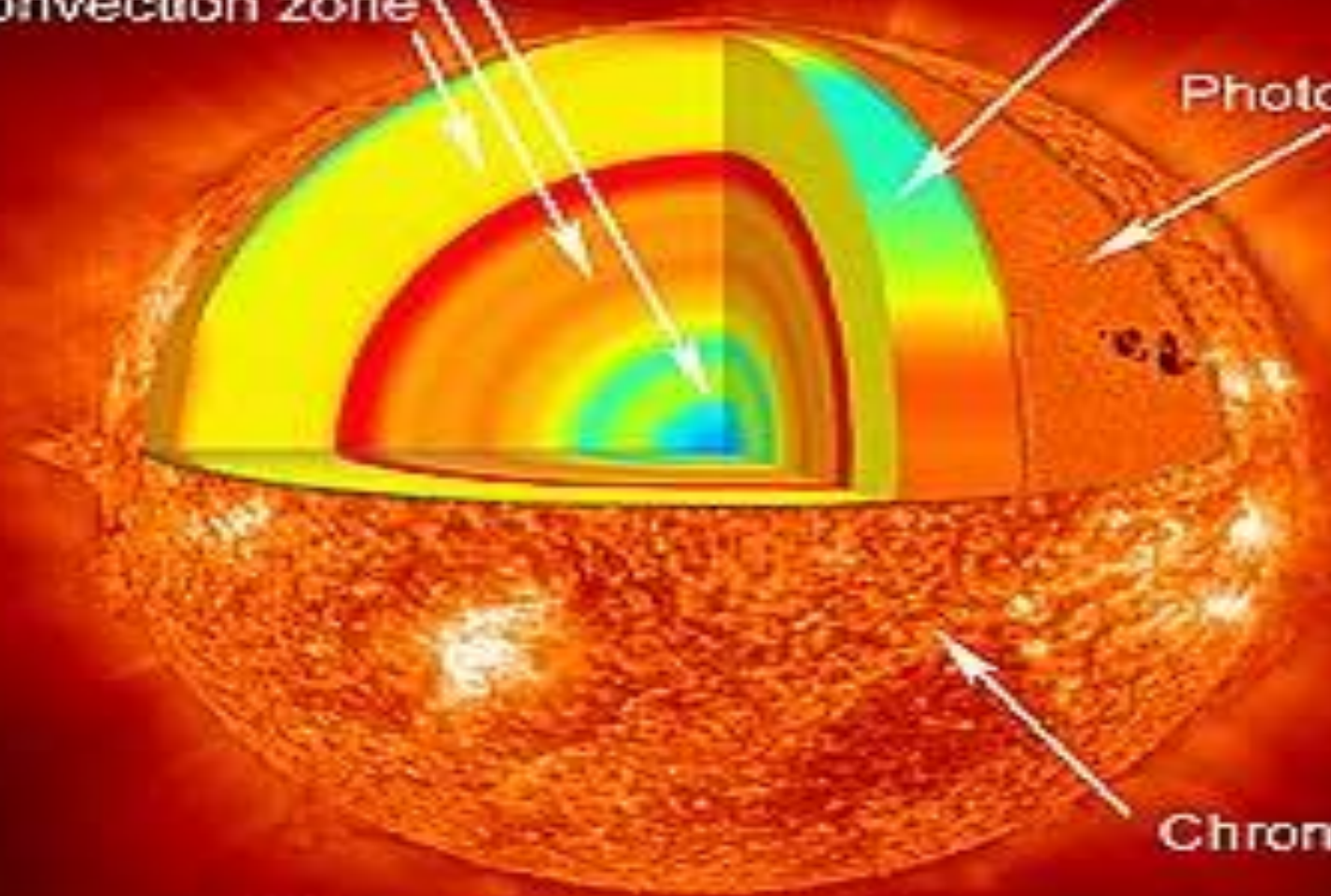


- **The largest star in the Milky Way.**
- **The diameter of the Sun is 870,000 miles.**
- **The Sun's distance from the Earth is 93 million miles.**
- **The Sun's core is composed of hot & dense gasses. It has a temperature of 27 million degrees F.**

Internal structure:
inner core
radiative zone
convection zone

Subsurface flows

Photosphere



Chromosphere

Corona

Our Next Stop: Mercury

- **The 8th largest star in the Solar System**
- **The diameter of Planet Mercury is 4,878 km**
- **Mercury's minimum distance from Earth is 48 million miles.**

Our 3rd Stop: Venus

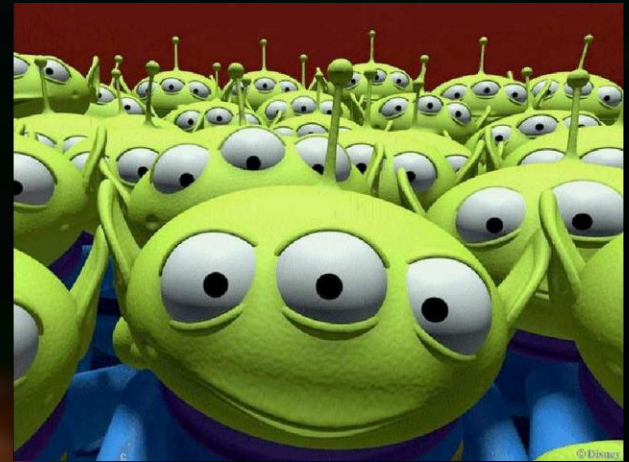
- The sixth largest planet in the Solar System
- Similar in size, density, and mass= Venus and Earth.
- Maximum distance of Venus from the Sun is 68 million miles.
- Minimum distance of Venus from the Earth is 25 million miles.

4th Stop: Earth, Planet Home

- ◎ The 5th largest planet in the Solar System.
- ◎ Earth's distance from the Sun- Min. 91million miles
- ◎ Max. 94.5 million miles.
- ◎ The Diameter of the Earth is7,926 miles.

5th Stop: Mars

The Red Planet



- Is it the 7th largest planet in the Solar System.
- . Mars maximum distance from the Sun = 155 million miles.
- Mars is 35 million miles from Earth

6th Stop: Jupiter



- **Jupiter**, the largest planet in our solar system.
- Jupiter's maximum distance from the Sun = 508 million miles.
- Jupiter's minimum distance from Earth = 365 million miles.

7th Stop: Saturn



- The second largest planet.
- Saturn's maximum distance from the Sun is 938 million miles.
- Saturn's minimum distance from Earth is 746 million miles.

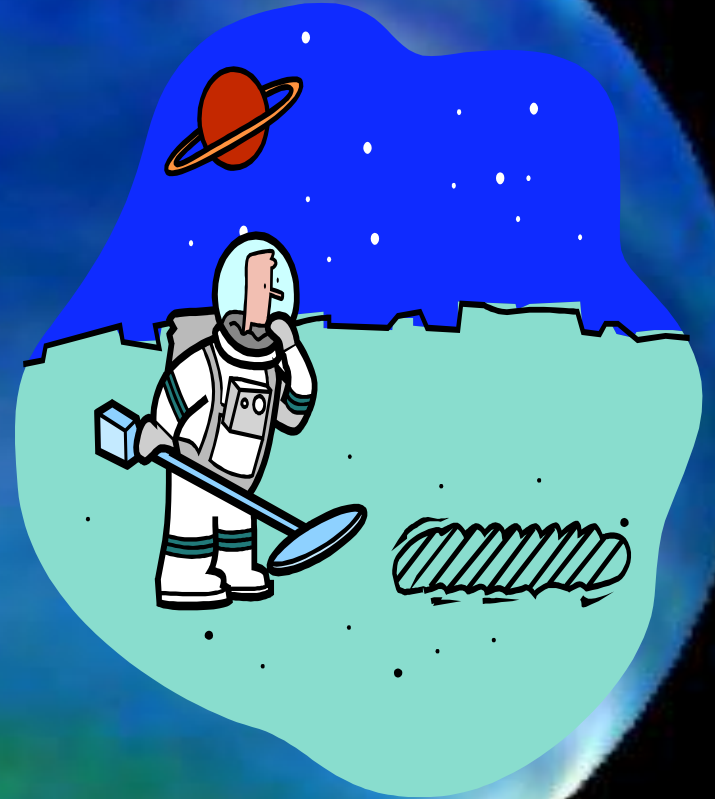
8th Stop: Uranus

A large, light blue planet with a prominent ring system, set against a dark, star-filled background. The planet is the central focus, with its rings extending across the frame. The background is a deep black space filled with numerous small, bright stars of varying colors and sizes.

- ⦿ Third largest planet in the solar system.
- ⦿ Uranus maximum distance from the Sun is 1.88 billion miles.
- ⦿ Uranus minimum distance from the Earth is 1.6 billion miles.

9th Stop: Neptune, the Windy Planet

- The fourth largest planet in the solar system.
- Neptune's maximum distance from the Sun – 2.8 billion miles.
- Neptune's minimum distance from Earth – 2.7 billion miles.



10th Stop: Pluto, the little Planet that Wasn't

- Pluto is a dwarf planet in the solar system. It is the smallest.
- Pluto maximum distance from the Sun – 4.6 billion miles.
- Pluto's minimum distance from Earth – 2.7 billion miles.

Jupiter

Saturn

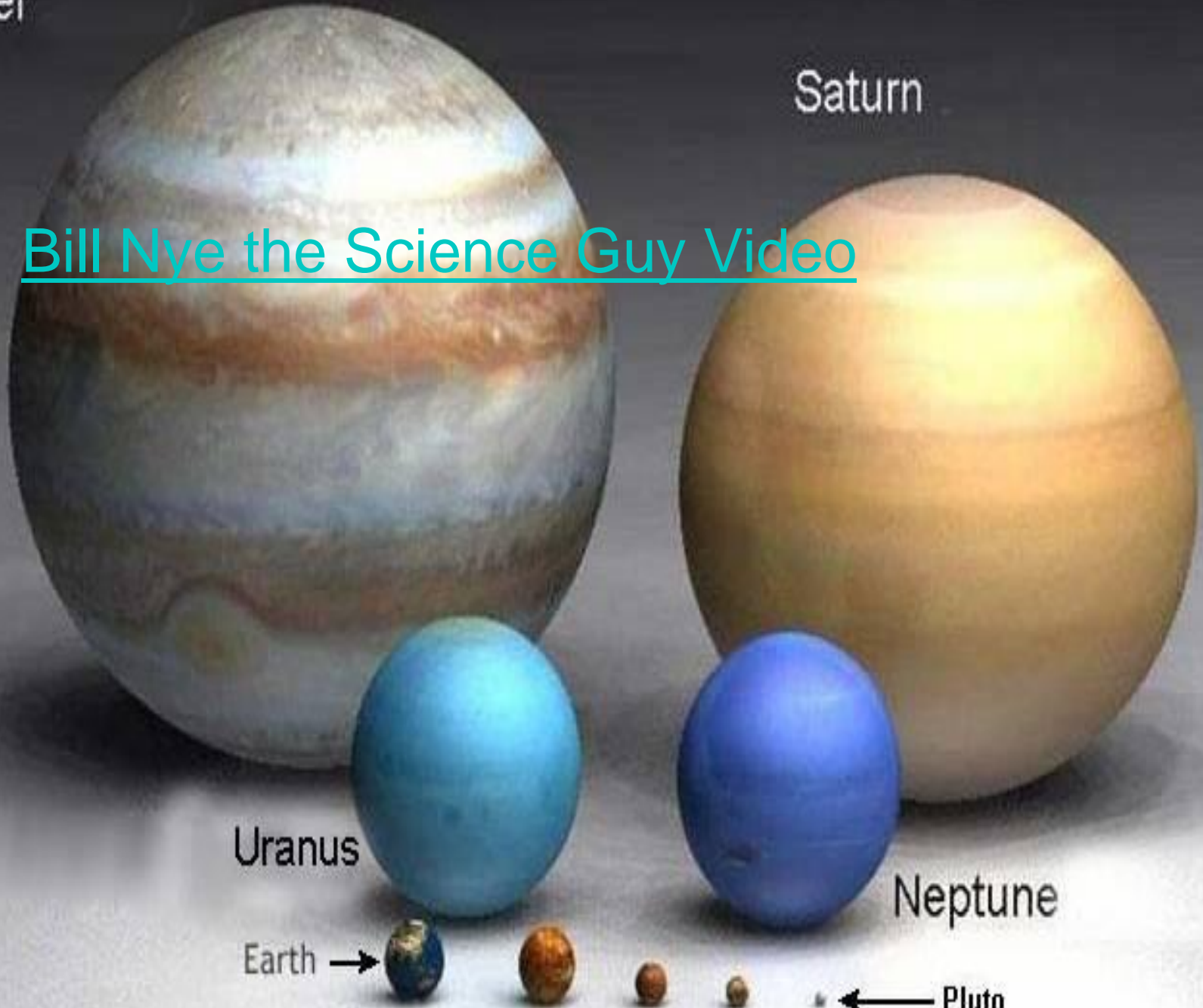
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Uranus

Neptune

Earth →

← Pluto



◎ Video Planet Sizes

Sun

