SPACE

Distance and Size of the Planets in our Solar System

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Learning Goals

- We are learning to identify the order of the planets from the Sun.
- We are learning to use astronomical units (AU) to measure distances in the solar system.
- We are learning to compare the relative sizes of planets in our solar system.

Success Criteria

- I can define an Astronomical Unit (AU) and explain what it represents.
- I can identify the names and basic characteristics of the planets.
- I can correctly order the planets by their distance from the Sun.
- I can rank the planets by size from largest to the smallest.

Matching Game

- Get into groups of 2-3
- Match each planet with an AU value
- Order these planets from closest to the sun to farthest
- You will have 5 Minutes to complete

Relative Size

Pop Can Height (12 cm)



Thunder Bay to Toronto (919 km)



Trips Around Earth

Earth Circumference
→ 40,075 km



How Far Are We From The Sun?

Distance to the Sun is ....?

150,000,000 km → 1 Astronomical Unit (AU)

1 Astronomical Unit is the distance between earth and the sun

Video Time

Mercury

- First Planet from the Sun
- Distance → 0.39 AU
- Colour → Dark Grey
- Surface Area → 75 Million km^2
- 1 year is only 88 days



Venus

- Second Planet from the Sun
- Distance → 0.72 AU
- Colour → Red/Yellow
- Surface Area → 460 Million km^2
- Rotates in reverse; Sun rises in west and sets in the east



Earth

- Third Planet from the Sun
- Distance → 1 AU
- Colour → Blue/Green
- Surface Area → 510 Million km^2
- Only known planet to have life



Mars

- Fourth Planet from the Sun
- Distance → 1.52 AU
- Colour → Red/Orange
- Surface Area → 145 Million km^2
- Has largest volcano in the solar system → Olympus Mons



Jupiter

- Fifth Planet from the Sun
- Distance → 5.20 AU
- Colour → Orange/Brown/White
- Surface Area → 61.4 Billion km^2
- Great Red Spot on the planet is a storm that has been going on for hundreds of years



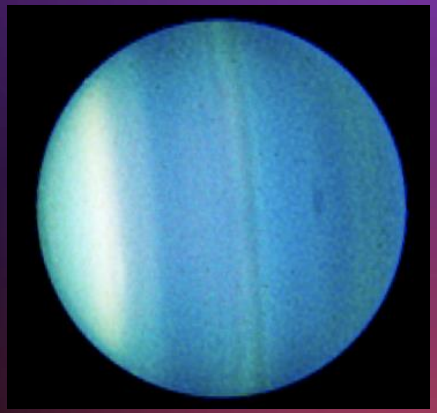
Saturn

- Sixth Planet from the Sun
- Distance → 9.54 AU
- Colour → Gold
- Surface Area → 42.7 Billion km^2
- Has visible rings made of ice and rock



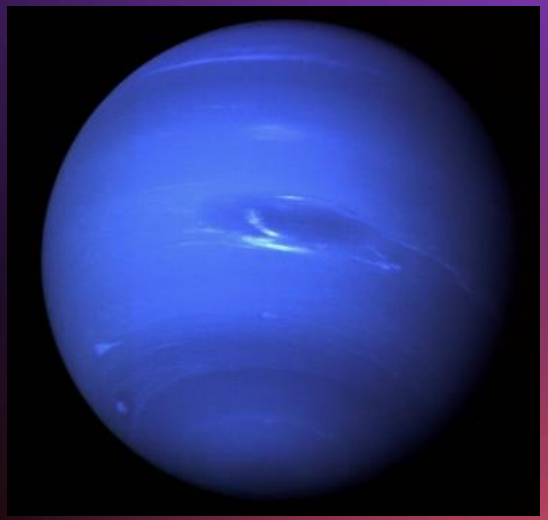
Uranus

- Seventh Planet from the Sun
- Distance → 19.22 AU
- Colour → Pale Green
- Surface Area → 8.1 Billion km^2
- Rotates on its side due to potential collision



Neptune

- Eighth Planet from the Sun
- Distance → 30.05 AU
- Colour → Blue
- Surface Area → 7.6 Billion km^2
- Has winds over 2,000 km/h



Exit Card

Please work alone to answer the questions.

Use your notes from today, They will help you