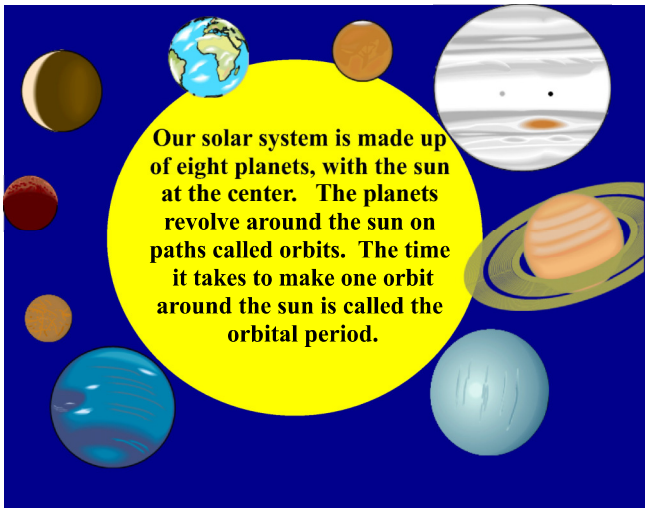
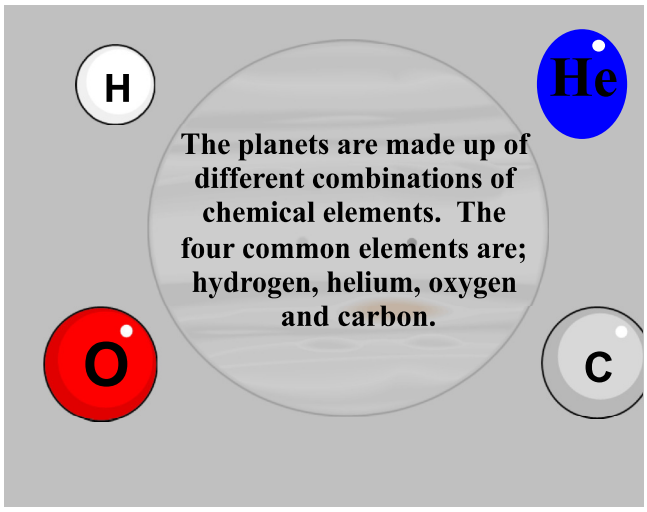
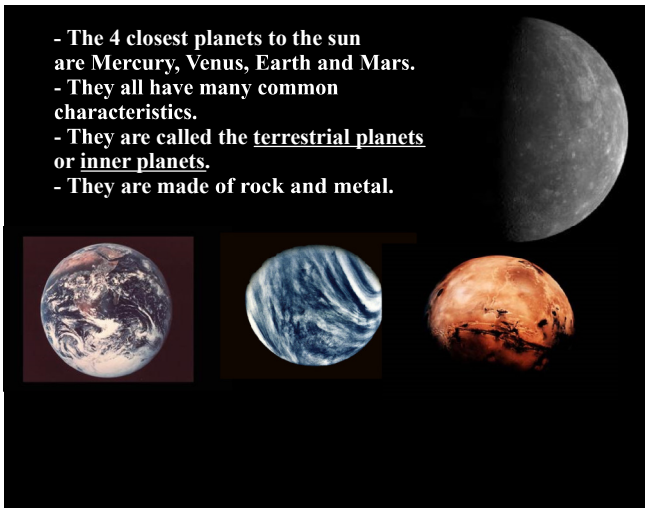

Our solar system is made up of eight planets, with the sun at the center. The planets revolve around the sun on paths called orbits. The time it takes to make one orbit around the sun is called the orbital period.


H
He
The planets are made up of different combinations of chemical elements. The four common elements are; hydrogen, helium, oxygen and carbon.
O
C

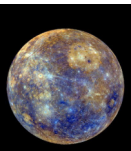

- The 4 closest planets to the sun are Mercury, Venus, Earth and Mars.
- They all have many common characteristics.
- They are called the terrestrial planets or inner planets.
- They are made of rock and metal.


- The 4 other planets (Jupiter, Saturn, Uranus and Neptune) are far away in space.
- They are called the outer planets.
- We can also call them the gas giants, because they are made up of mostly hydrogen and helium and they are big.

Bill Nye - Planets and moons

Questions to follow

MERCURY



- Closest planet to the sun
- No atmosphere, therefore temperature ranges from -180°C to 400°C
- Contains craters caused by colliding rocks
- Too close to the sun so it is rarely visible at night
- Has no moons

VENUS

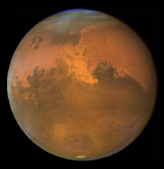
- Has a thick atmosphere made of Carbon dioxide and Nitrogen
- Hottest planet due to the greenhouse effect
- Only planet that rotates backwards compared to the other planets
- Brightest object in the night sky with the exception of the sun and moon
- Has no moons

PLANET EARTH

- Atmosphere is made of Nitrogen, Oxygen, and water vapor
- Has a slight greenhouse effect
- Temperature ranges from -85°C to 65°C
- Surface is made up of 70% water
- One moon

MARS

- Called the "Red Planet" because of its rusty soil
- Mars' atmospheric components consist of Carbon dioxide, Nitrogen and Argon
- Explored with space probes
- Once contained glaciers and water
- Has two moons



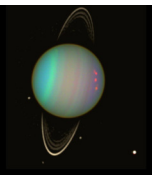
JUPITER

- Largest planet
- Has the greatest mass
- Can be seen in the night sky
- Has a huge hurricane that is known as the "Great Red Spot"
- Has approximately 55 moons

SATURN

- Second largest planet
- Least dense
- Has rings that contain particles of ice rocks the size of dust to the size of a mountain
- Has approximately 66 moons

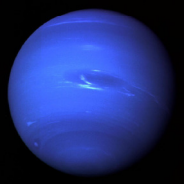
URANUS



- Rotates on a horizontal axis
- Atmosphere is mostly hydrogen, with some helium & methane
- Coldest planet
- Has approximately 27 moons
- Also has rings

NEPTUNE

- Known as the "Ice Giant"
- Atmosphere contains hydrogen and helium
- Has approximately 14 moons



DEFINING A PLANET

- According to Internation Association of Universities, to be a planet, an object needs to meet 3 requirements:

1. It needs to orbit around the sun
2. It needs to have enough gravity to pull itself into a spherical shape
3. It needs to have "cleared the neighborhood" of its obit. This means the object must be the main gravitational force in its orbit - when they interact with other, smaller objects, they either consume them or sling them away with their gravity.

PLUTO

- Because Pluto is only 0.07 times the mass of other objects in its orbit, it has not either consumed or pushed other objects out of its orbit, so it does not meet requirement #3 to be a planet.
- Therefore, it is now considered a dwarf planet.