The Outer Planets

By Eric Collins, Jeremy Koehler, and Trevor Hanson
How Many Planets

- There are four outer planets in the solar system.
- They are Uranus, Neptune, Jupiter, Saturn.
- These planets are part of the Milky Way Galaxy.
What are the four layers of Neptune?
• The Upper Atmosphere- consisting of clouds
• The Atmosphere-consisting of hydrogen
• The Mantle- consisting of water
• The Core- consisting of rock and ice
Facts About Neptune

• The Great Dark spot was discovered by Voyager two. This large black spot is a large storm.
• Neptune has 13 known moons.
• Neptune’s biggest moon is named Triton.
• The most common gas in Neptune’s atmosphere is hydrogen at about 80%.
More Neptune Facts

- Neptune was originally to be named Oceanus but that later changed to the name Neptune.
- Neptune has rings along with Saturn.
- The Great dark spot was lost but then relocated later which shows it moves around.
- Neptune’s atmosphere is blue because of all the storms surrounding the whole planet.
More Neptune

• Neptune’s rings are invisible to the human eye
• Neptune is 4.5 billion kilometers away from the sun
• Its temperature is affected by this because it has so less sun light the temperature is very cold on Neptune.
• Neptune fully rotates once every 16 hours and 7 minutes.
Jupiter

- Jupiter is the fifth planet from the sun and the largest planet within the Solar System.
- It is a gas giant with a mass slightly less than one-thousandth that of the Sun but is two and a half times the mass of all of the other planets in our Solar System combined. Jupiter is classified as a gas giant along with Saturn, Uranus and Neptune.
More Jupiter

• Jupiter is primarily composed of hydrogen with a quarter of its mass being helium.
• Jupiter's upper atmosphere is composed of about 88–92% hydrogen and 8–12% helium by percent volume or fraction of gas molecules (see table to the right).
• Jupiter is perpetually covered with clouds composed of ammonia crystals and possibly ammonium hydrosulfide.
More Jupiter

• The big red spot on Jupiter is a hurricane it is big enough to fit 3 earths inside of it.
• Jupiter is 142740 km and earth is 12756 km.
• Jupiter is 778.3 million km away from the sun.
Saturn

• Saturn is the second largest planet and the sixth planet from the sun.
• Saturn is named after the Roman god Saturn.
• The planet Saturn is composed of hydrogen, with small proportions of helium and trace elements.
• Saturn has a prominent system of rings, consisting mostly of ice particles with a smaller amount of rocky debris and dust.
More Saturn

- Sixty-one known moons orbit the planet, not counting hundreds of "moonlets" within the rings.
- Titan is its largest moon and second largest moon for the solar system.
- Saturn is 120034 km and Earth is 12756 km.
- Saturn is 1,429,400,000 KM away from the sun.
Uranus

- Uranus is the third largest planet and the seventh planet from the sun.
- Uranus was the first planet discovered.
- Nights on Uranus can last up to 40 years.
- Uranus spins on its side and is tilted at 59 degrees.
- Uranus has 27 known moons.
- Uranus is 50% water ice, 30% rock, and 20% carbon and nitrogen.
More Uranus

• Uranus is big enough to hold 64 earths inside of it.
• Uranus is the coldest planet in the solar system.
• Uranus has nine rings, but they are not visible because they are made of ice and very narrow.
• Uranus is 1,699,800,000 miles away from the sun.
• Uranus takes 84 years to orbit the sun.
More Uranus

• Uranus is the only planet called by a Greek name rather than a Roman name.
• The faint bluish color of the planet is because the methane gas in the atmosphere absorbs red light and reflects blue light.
• The planet was discovered in 1781 by William Hershel.
• In many Asian languages, Uranus is translated into “Sky King Star”.

Similarities and Differences

• Uranus is the only planet without rings.
• Jupiter, Neptune, and Saturn are warmer than Uranus.
• Neptune is the only planet that isn’t Reddish.
• They are all different distances away from the sun.
Resources

• http://zebu.uoregon.edu/~imamura/121/images/saturn.jpg
• http://images.google.com/imgres?imgurl=https://zabawiki3a.wikispaces.com/file/view/jupiter2.jpg&imgrefurl=http://dailyappleglobe.net/news/2013/01/04/jupiter-planet-images.html&h=138&w=144&sz=1&hl=en&start=0&um=1&tbnid=OVa3ULGHHqzF1M:&tbnh=138&tbnw=144&prev=/images%3Fq%3Djupiter%26hl%3Den%26safe%3Dactive%26rls%3Dcom.microsoft:en-us%26sa%3DX%26um%3D1
Resources

- http://en.wikipedia.org/wiki/Main_Page
- http://www.planetfacts.net/Uranus-Facts.html
- http://astronomyspace.suite101.com/article.cfm/uranus_facts
- http://www.windows.ucar.edu/tour/link=/uranus/uranus.html
- http://www.nasa.gov/worldbook/uranus_worldbook.html