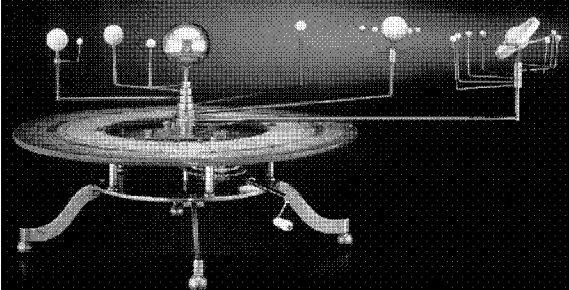


Monday, October 25  
Solar System Review



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Solar System Review  
Key Concepts

- 1) **Terrestrial** planets are made mostly of rock and metal.
- 2) **Jovian** planets are made mostly of hydrogen and helium.
- 3) **Moons** orbit around planets (including dwarf planets).
- 4) **Asteroids, comets, & trans-Neptunian objects** orbit the Sun.

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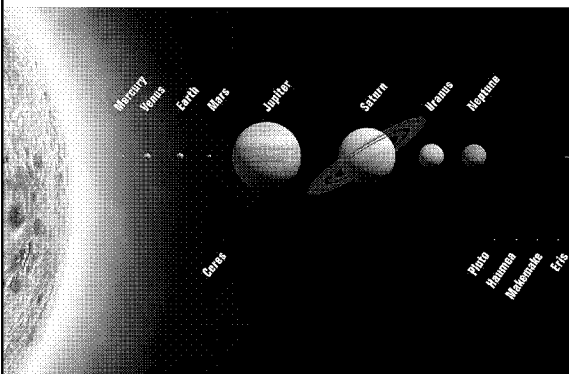
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The Solar System today: a family portrait



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A few words about the Sun.



The Sun is a sphere of gas (mostly hydrogen & helium).

The Sun shines because it is hot.

The Sun stays hot because it's powered by fusion of hydrogen to helium.

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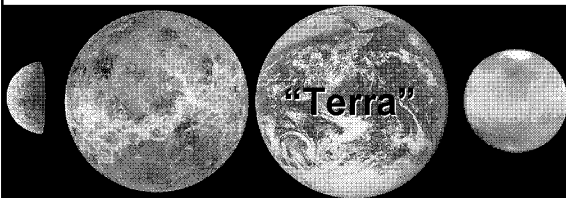
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Terrestrial planets are made mostly of rock and metal.



Terrestrial planets (Mercury, Venus, Earth, Mars) are relatively low in mass, high in density.

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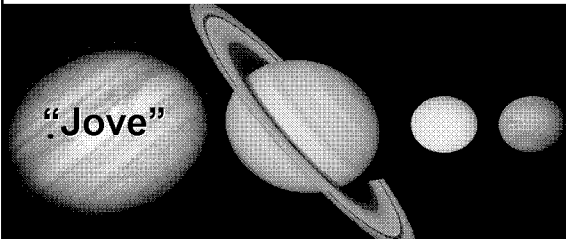
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Jovian planets are made mostly of hydrogen and helium.



Jovian planets (Jupiter, Saturn, Uranus, Neptune) are relatively high in mass, low in density.

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Don't forget moons!

The current moon count:

Mercury = 0
Venus = 0
Earth = 1
Mars = 2
Jupiter = 63
Saturn = 62
Uranus = 27
Neptune = 13

Terrestrial: moon-poor

Jovian: moon-rich

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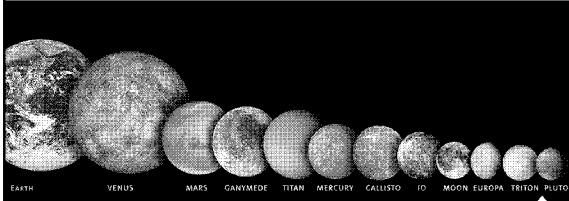
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The 7 giant moons are bigger than Eris & Pluto;  
2 are bigger in radius than Mercury  
(but lower in mass).



Eris goes here

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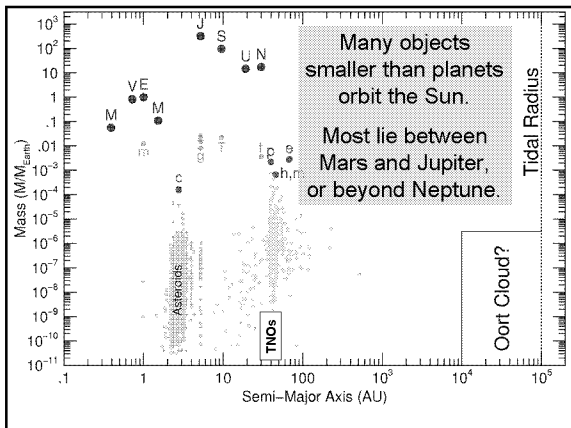
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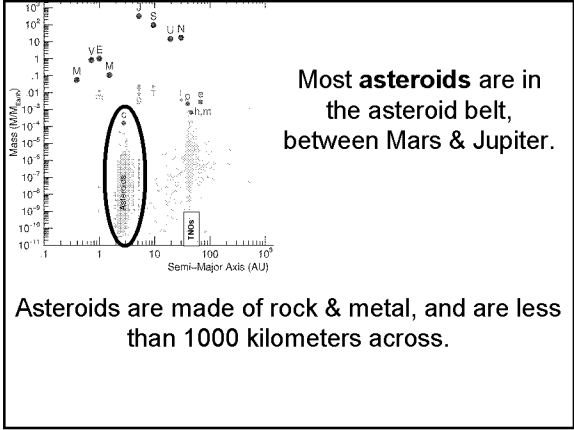
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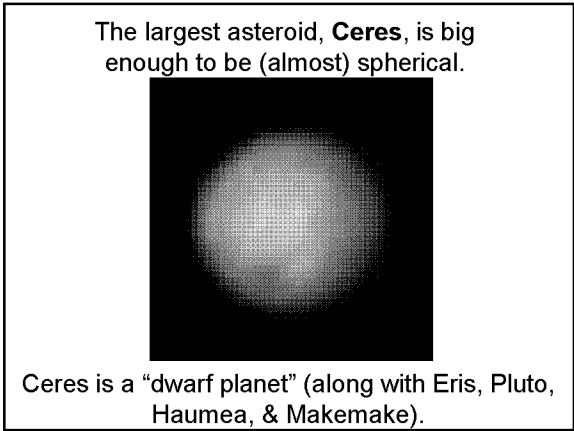
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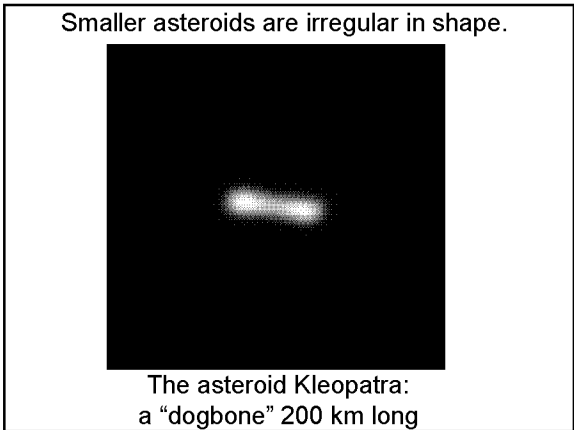
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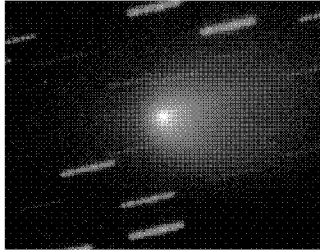
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**Comets** are made of dirty ice, a few kilometers across.



Comet Wild 2

When comets approach the Sun, they grow tails of gas and dust.

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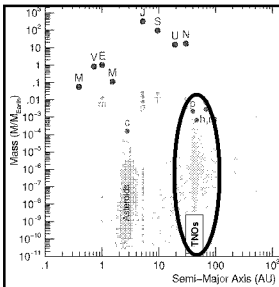
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The **Kuiper belt** lies just outside the orbit of Neptune.

**Trans-Neptunian Objects (TNOs)** in the Kuiper belt are made of ice, and are 100s of kilometers across.

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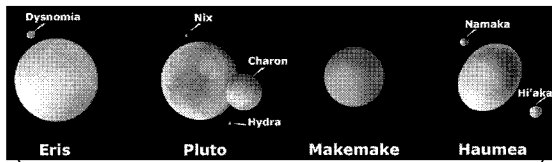
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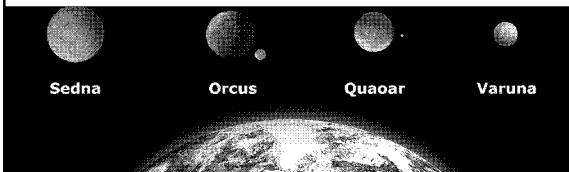
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The largest known TNOs are also dwarf planets.



Dwarf Planets




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