

Lecture Notes from 9/9

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Moon

- A satellite of the earth (it circles the earth)
- 384,000 km from the earth (takes 5 days to get there)
- Quarter of Earth's diameter
- $\frac{1}{6}$ of Earth's Gravity
- Density significantly different \rightarrow much lower
- No atmosphere
- Geomorphology = way the terrain changes
- Impact structures in the Moon (huge craters)
- Lighter silicates \rightarrow made out of.

from the sun

The Terrestrial Planets (Earth-like planets) closer to the sun

- 1st Mercury \rightarrow high density planets
- 1st planet from the sun
 - Literally very hot and very cold (one side and the other)
 - barren, cratered, no atmosphere
 - Distance from the sun .387 AU
 - Orbital Inclination 7°
 - plane called by earth and sun \rightarrow ecliptic

- 2nd Venus (couldn't study until Radar was invented)
- Greenhouse effect, hot, dense atmosphere, volcanoes. \rightarrow active
 - mainly CO_2

- 3rd Earth why is the sky blue = no absorbant scattering

4th Mars

- cold, thin atmosphere CO_2 , one time was probably very active
- 2 satellites
- Red appearance = CO_2 (bigger molecule)
- No life w. Mars (in the past it was debatable)

Jovian Planets

Jupiter -

- dense atmosphere / mostly gas
- very strong magnetic field, very big planet (317.9 Earth Units)
- 16 Satellites
- Enormous storm in Jupiter's Atmosphere
- High winds

Saturn

- similar to Jupiter, less dense than Jupiter
- 18 Satellites
- smaller than Jupiter
- More involved ring system

Uranus: (blue-green color - scattering reflection)

- dense (extremely) atmosphere
- abundant water
- 21 Satellites
- Laying on its side (90° out)
- Victim of a very large impact

Neptune

- 30 AU from the sun

Finally

Pluto

- Not like any other planet
- Huge orbital period
- 30 AU from the sun
- wanders inside & out the orbit of Neptune.

cross paths