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Rocky Planet
- Silicates
- Metals
Melting allowed gravity to separate by density
- Metals drawn to center
 Silicates dominate the remainder
Oxygen and Silicon most common elements
 Combine with other elements to make feldspars, pyroxenes, amphiboles and quartz

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Nebular Hypothesis

- NEBULA—Rotating cloud of dust and gases
- Our solar system
 - Sun
- Major Planets
- Dwarf planets, asteroids and comets
- Hypothesis that it formed from nebula by gravitational contraction and solids colliding and becoming planets, etc.



 Occurred about 5 billion years ago







History of Astronomy

- Ancient civilizations believed that Earth was at the center of the universe— GEOCENTRIC MODEL
- Age of Reason beginning to recognize Sun is center of Solar System— HELIOCENTRIC MODEL
- Age of Technology exploring wide reaches of the universe



Anaxagoras

5th century B.C.
Moon is a sphere lighted by Sun

















Ptolemy's work

- Translated into Latin in 13th century
- Influenced intellectual thought for centuries

Arguments against Heliocentric Model

- Earth would fly apart if it rotated on an axis
- Moon would be left behind if Earth orbited
 Sun
- Since God created Earth and Sun and all the heavenly bodies, Earth is the center of the universe