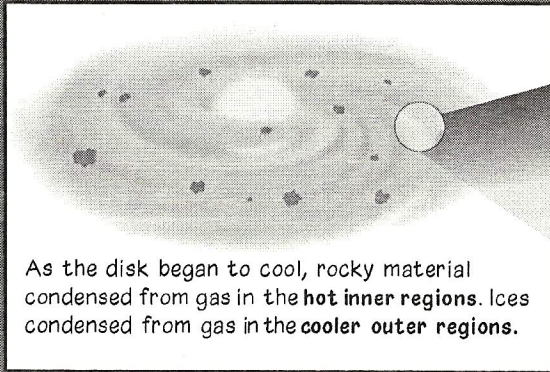
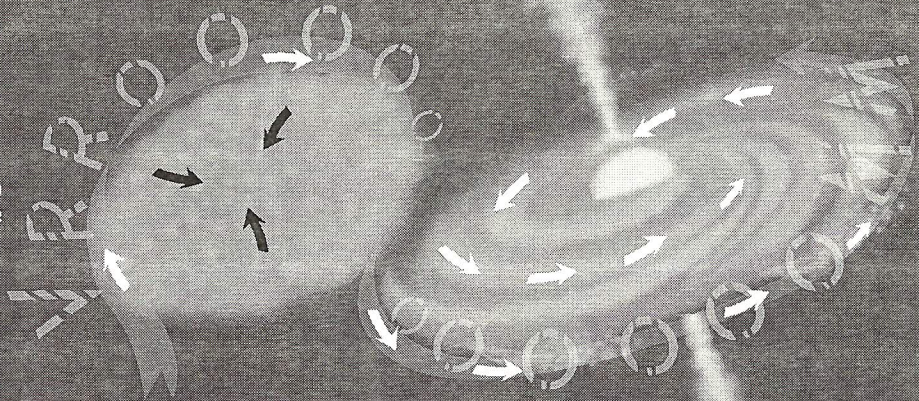


THE FORMATION OF THE  
**SOLAR SYSTEM**

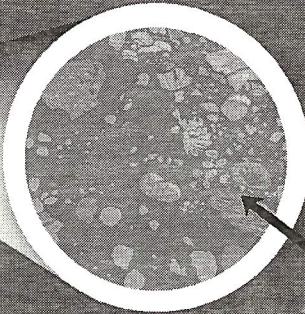
THE ADVENTURE CONTINUES ...

**ABOUT 4.6 BILLION YEARS AGO ...**

The sun and the planets of our solar system were formed when a cloud of interstellar dust, ice crystals, and gas collapsed of its own gravity to form a rapidly rotating disk with a young sun at its center.



As the disk began to cool, rocky material condensed from gas in the **hot inner regions**. Ices condensed from gas in the **cooler outer regions**.



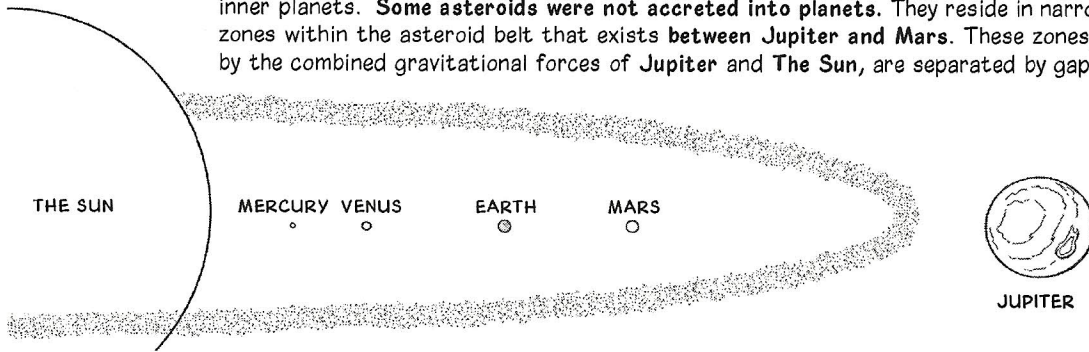
During condensation, clumps of dust grains melted and then solidified rapidly forming small glassy beads called **chondrules**. The first rocks, calcium-aluminum inclusions (called CAIs), also formed.

These primitive particles **collided** and **accreted** rapidly, held together by a fine-grained matrix. Through continued collisions they built into larger and larger bodies, eventually forming **The Planets**.



**Radioactive Heating** of the inner planets and some asteroids caused them to melt and differentiate. Dense metallic materials sank to form the core. Molten rock and silicate material formed the mantle. Further melting of the mantle formed a rocky crust.

**Over time** the asteroids residing in the inner solar system were captured by the gravity of the inner planets. **Some asteroids were not accreted into planets.** They reside in narrow orbital zones within the asteroid belt that exists **between Jupiter and Mars**. These zones, stabilized by the combined gravitational forces of **Jupiter and The Sun**, are separated by gaps.



hall of meteorites