



Formation of Our Solar System



Collapsing Interstellar Cloud

- An Interstellar Cloud is a collection of gas and dust between stars.
- Gravity can cause the interstellar cloud to condense and collapse



Spinning Interstellar Cloud

- The cloud will begin to rotate spin faster forming a dense concentration at the center.
- This Solar Nebula would become the Sun

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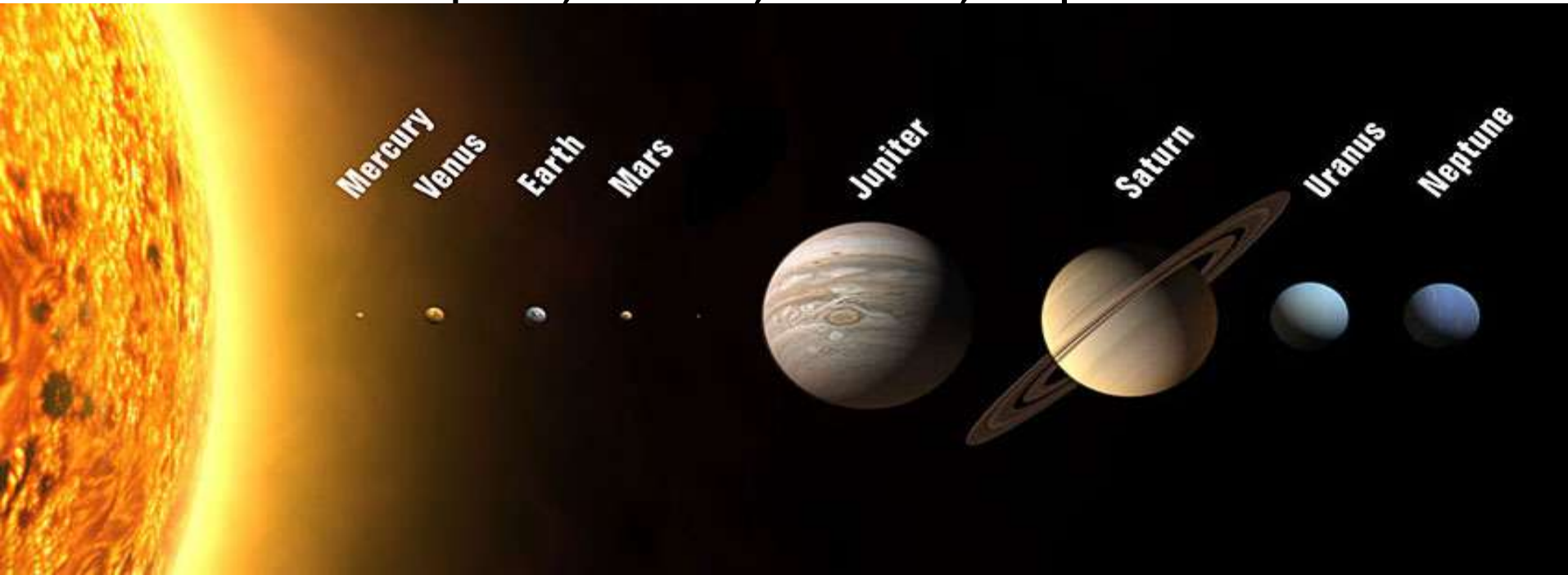
Planet Formation

- As the temperatures cooled and the Sun's gravity pulled objects closer, planetesimals began to form



Planetesimals into Planets

- The Planetesimals would form into inner and outer planets:
 - Inner –Mercury, Venus, Earth, Mars
 - Outer- Jupiter, Saturn, Uranus, Neptune



Inner Planets

- Are made primarily of rocky dense material.
- Most inner planets do not have moons because the Sun's gravity absorbed these satellites.



Outer Planets

- The first large planet to form was Jupiter. It grew over time by attracting icy planetesimals.
- The other outer planets couldn't grow as large because of Jupiter's gravity



Debris

- Not all planetesimals turned to planets.
- There is an asteroid belt between the inner and outer planets.
 - Jupiter's gravity prevented this debris from becoming a planet

