

Notes for Understanding the Solar System

- **Geocentric Model**
 - The belief Earth was in the center with everything else revolving around the Earth.
- **Heliocentric Model**
 - The belief that the Sun was in the center of solar system with the planets revolving around the Sun.
- **Nicholas Copernicus**
 - Developed the heliocentric model and published a book about it in the early 1500's. Book was banned by the church for 300 years.
- **Johannes Kepler**
 - Worked out mathematically how the solar system works in the early 1600's.

- **Kepler's Laws of Planetary Motion**
 - **1st Law** – The orbit of every planet is an ellipse with the Sun located at one focus.
 - Earth is closer to the Sun at perihelion (January)
 - Earth is further from the Sun at aphelion (July)
 - **2nd Law** – Planets travel at different speeds during their orbit, traveling faster when they are closer to the Sun and slower when they are further from the Sun.
 - **3rd Law** – Planets farther from the Sun take longer to orbit the Sun.
- **Galileo Galilei**
 - First to use a telescope to study space. Found visible proof that planets orbit the Sun by observing the various phases of Venus.