



The Planets & The Ecliptic

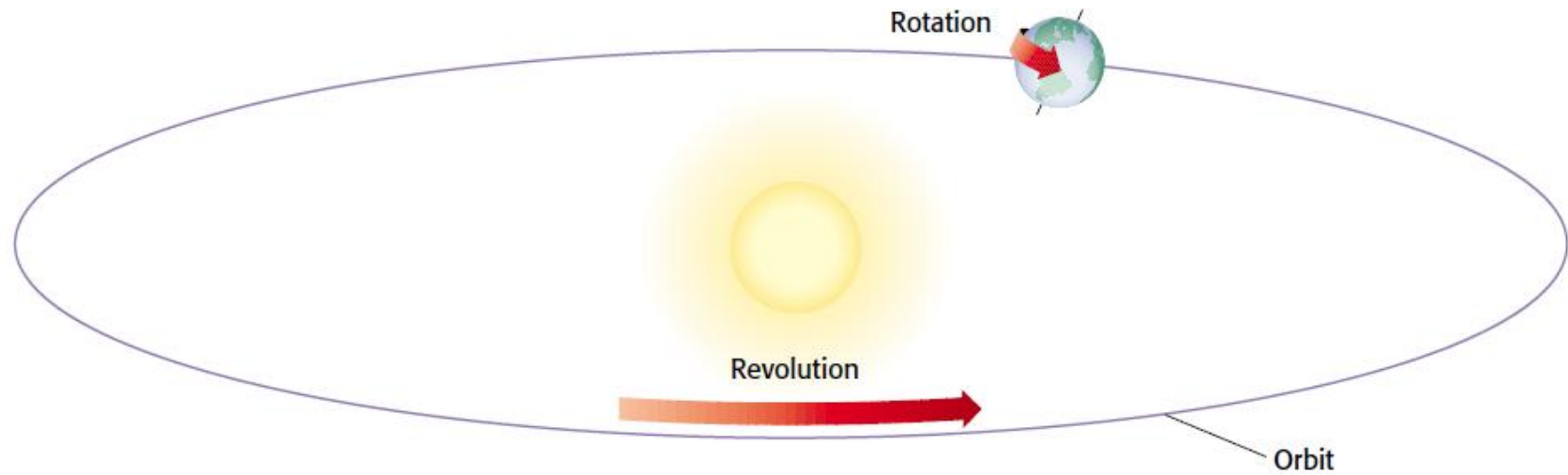
Objective: Review a model of the first four planets with the constellations of the zodiac as a background.



Research

- **Constellation**: a grouping of stars.
- **Rotation**: the turning of a planet on its axis. One = day.
- **Zodiac**: circular backdrop of 12 constellations

Research



Research

- **Revolution**: the motion of one object around another object.

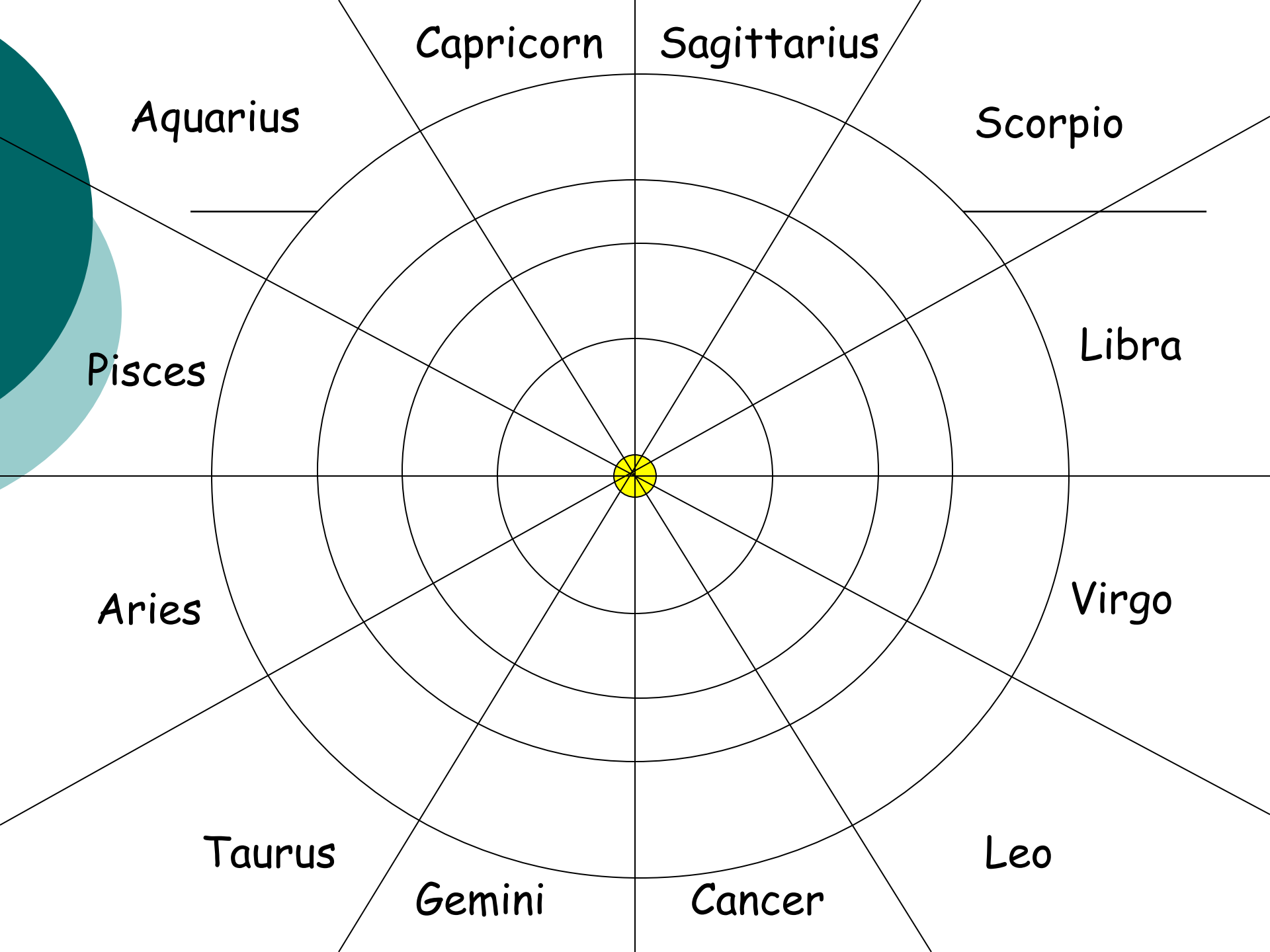
Planets all appear to move **counter clockwise** through the zodiac

- **Plane of the Ecliptic**: the intersection of the Earth's orbit with the celestial sphere.

Research

- **Astronomical Unit (AU):**
Earth's average distance from the Sun.

Planet	Average Distance in AU	Time it takes to Revolve Planet Year (in Earth days)
Mercury	0.4	88
Venus	0.7	225
Earth	1.0	365.25
Mars	1.5	687





Interpretation

- **Different constellations are seen or visible at different times of the year.**
- **Because of the Earth revolution around the Sun.**



Interpretation

- **Halfway.**
- **No, the Sun is in between**
- **Rotation – movement about an axis**
- **Revolution – orbit around another object.**



Model

- Using this scale, Earth would be 10 cm from the sun on the model.
- Your Model: *Shows orbits of* 4 of the planets in our solar system.