

Where is Earth?

the Local Supercluster

the Local Group

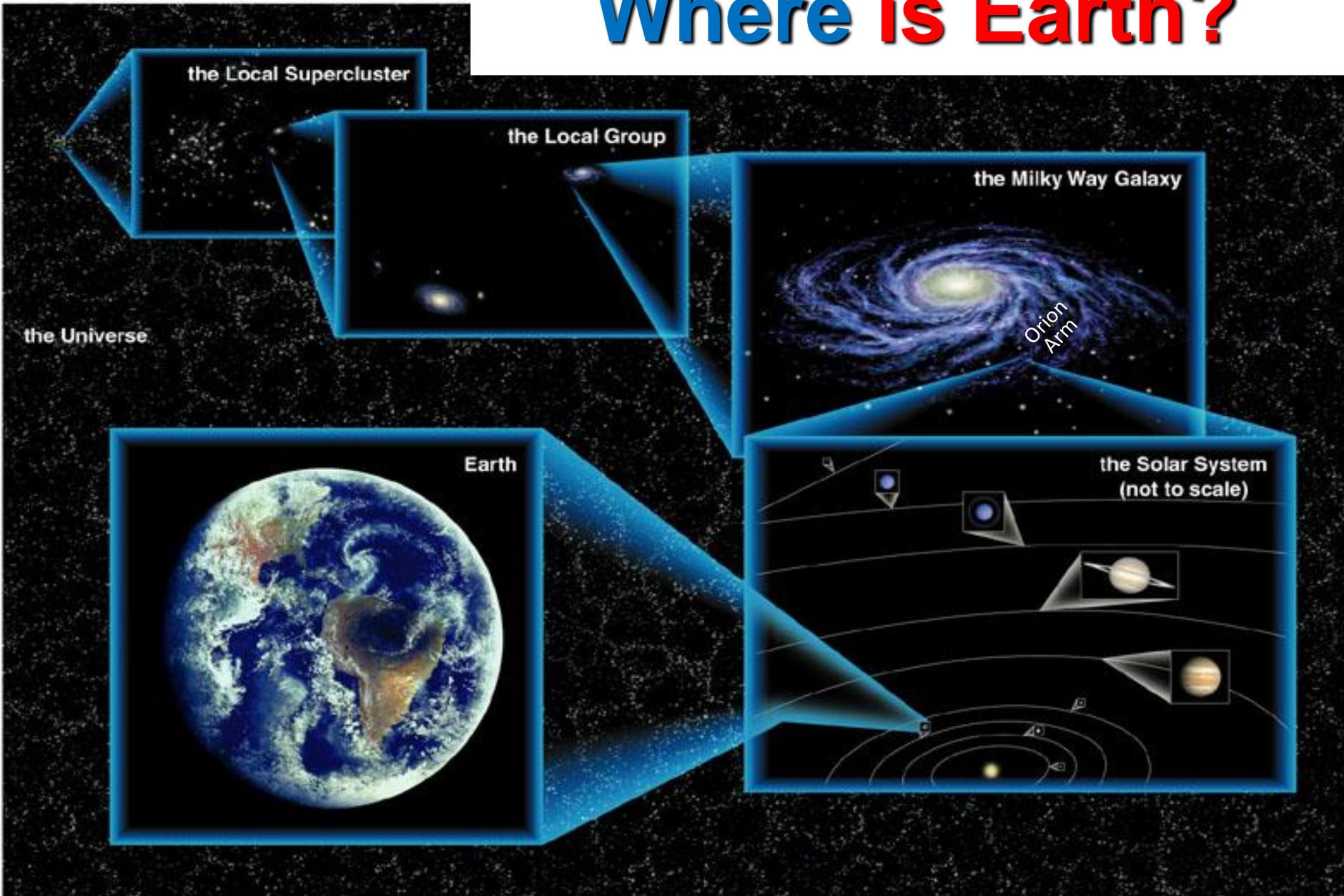
the Milky Way Galaxy

the Universe

Orion Arm

Earth

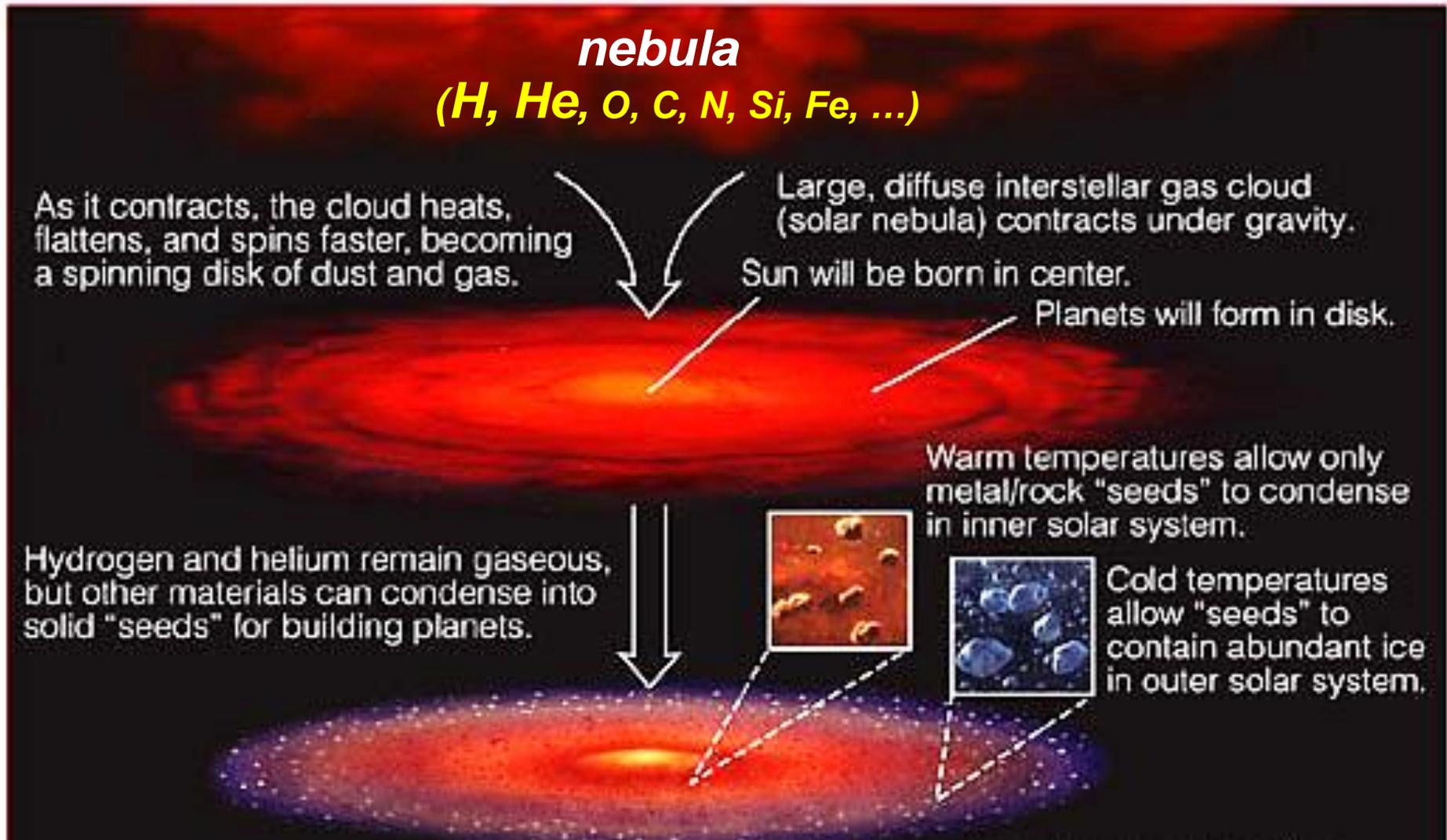
the Solar System
(not to scale)



The Formation of the Solar System

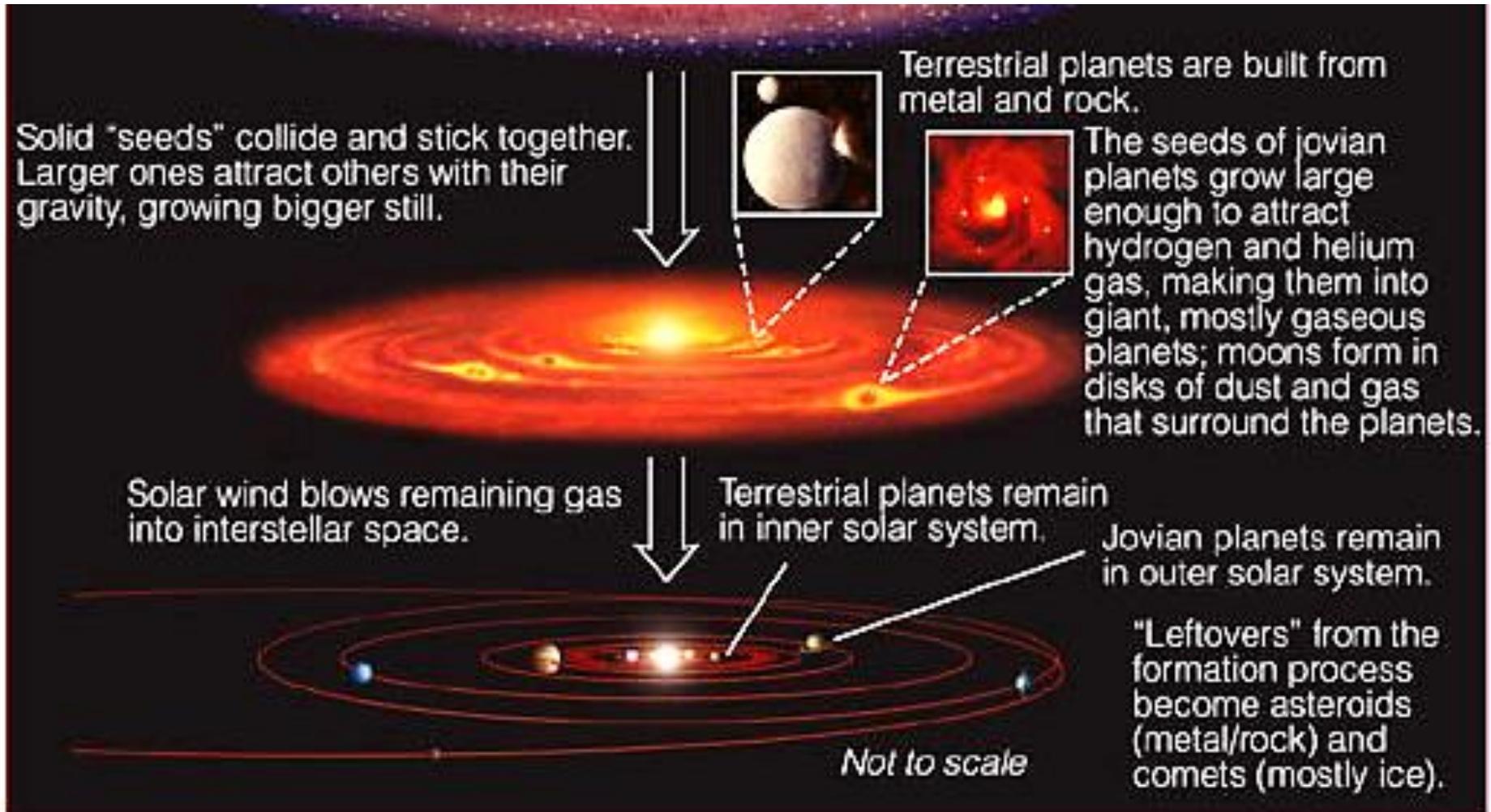
(~4.6 billion years ago)

Nebular Hypothesis



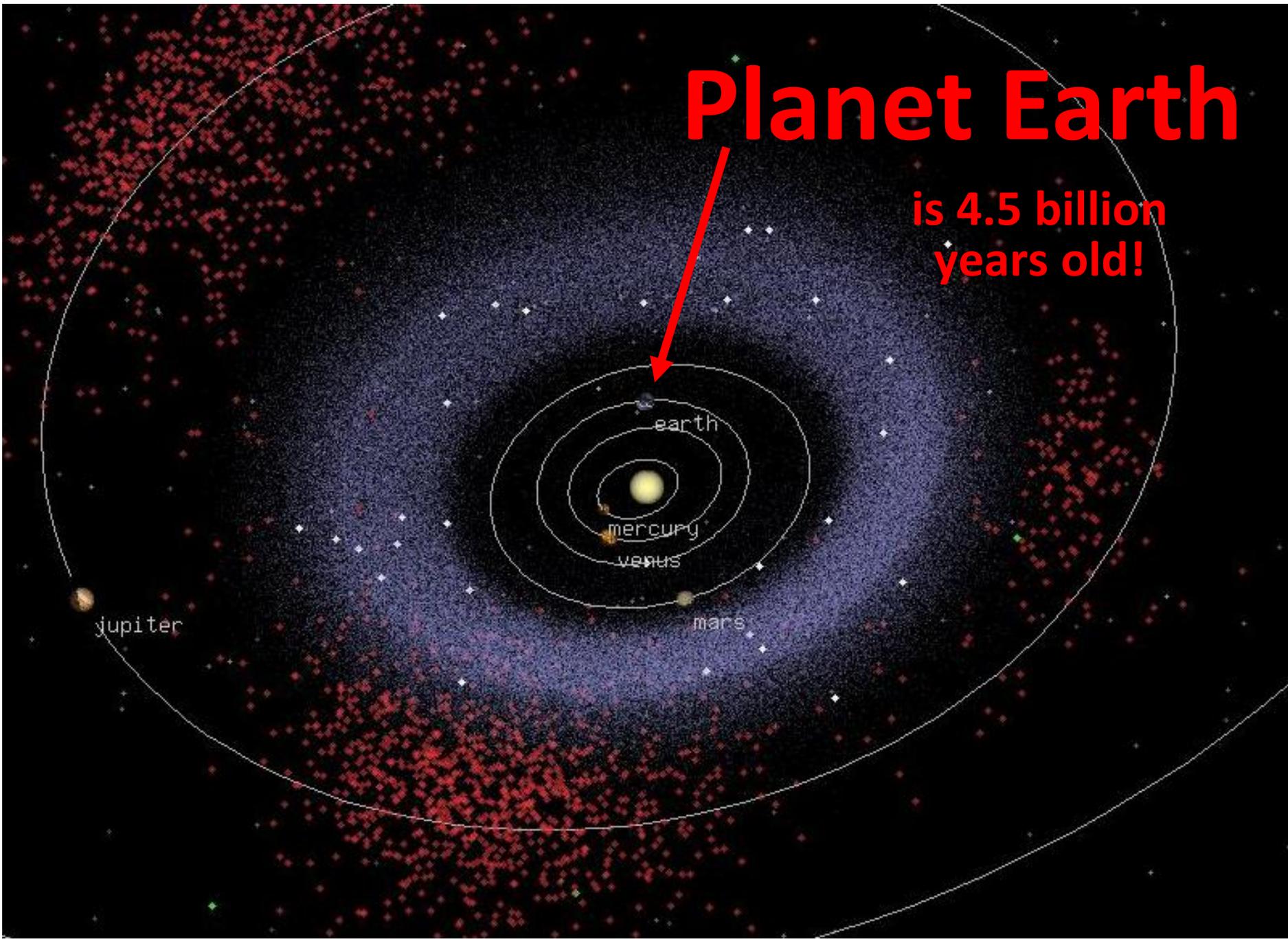
The Formation of the Solar System

The Sun, planets, moons, comets, asteroids are believed to form within 50-100 million years.



Planet Earth

is 4.5 billion
years old!



jupiter

mars

mercury

venus

earth

What do we see from Earth?

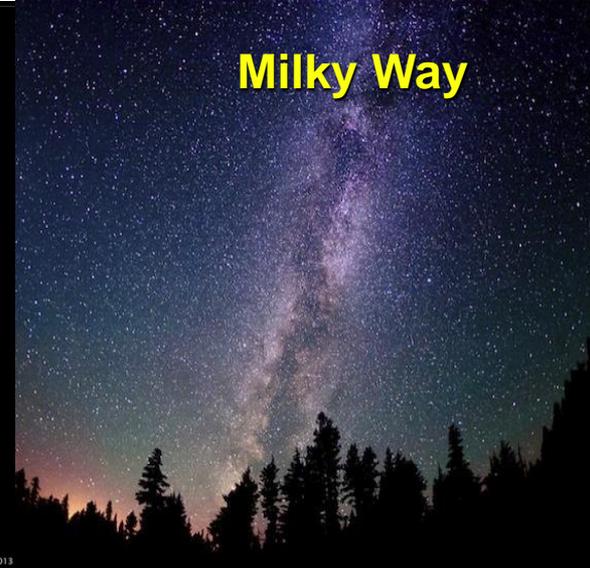
Sun



Moon



Milky Way



Meteorites



Constellation Orion



Mars



Earth Facts

- Earth is a **terrestrial (rocky) planet**, third from the Sun.
- Earth has a *single natural satellite*, the **Moon**.
- Earth has **LIFE!**
- Of the four terrestrial planets in the Solar System:
 - Earth is the largest both in size and mass.
 - Earth has the highest density, the strongest magnetic field, and the fastest rotation.
 - Earth has the highest surface gravity equal to 9.798 m/s.



Fun Fact: from the Earth's surface, the apparent sizes of the Sun and the Moon are approximately the same!