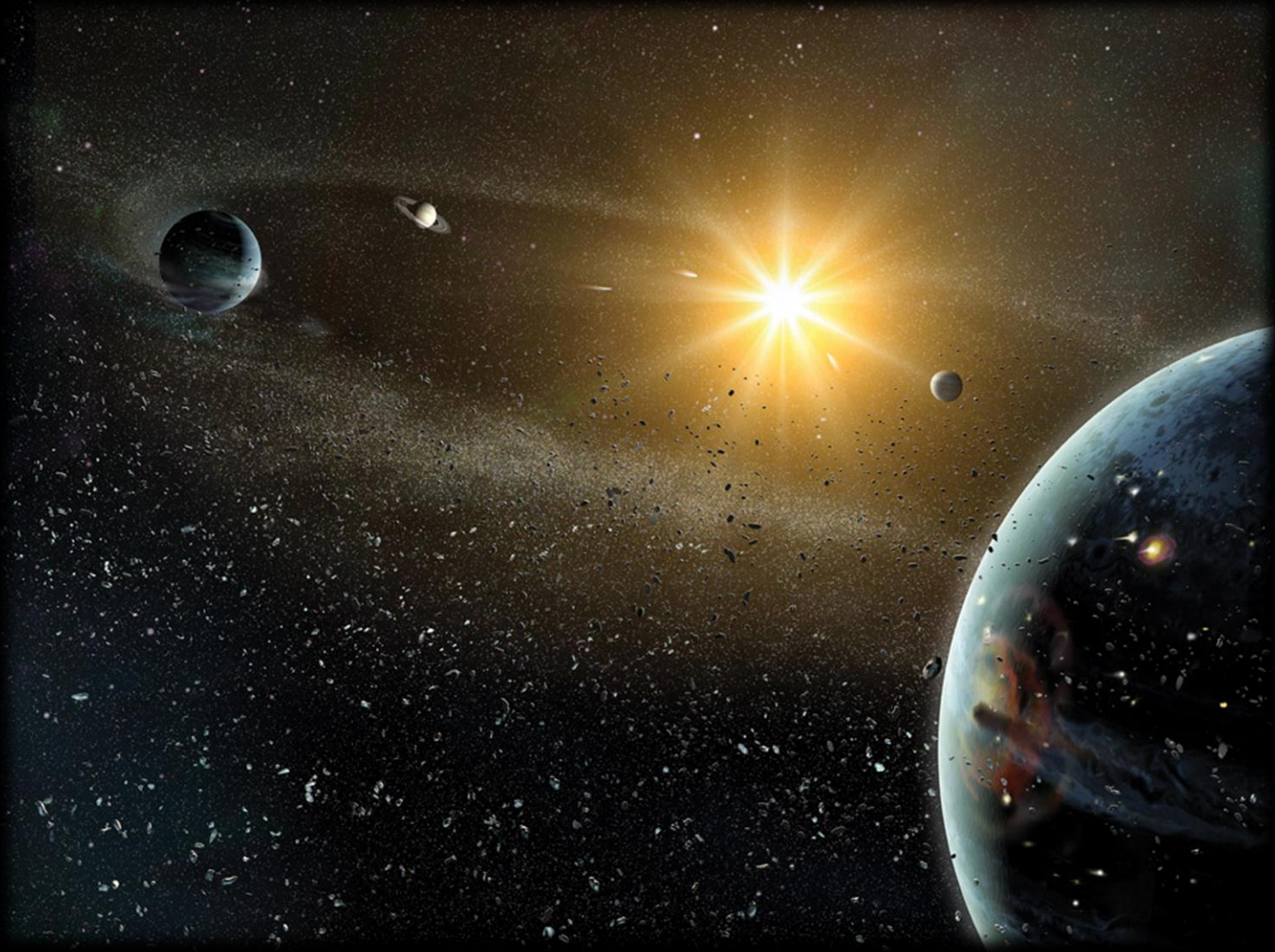


Formation of our Solar System



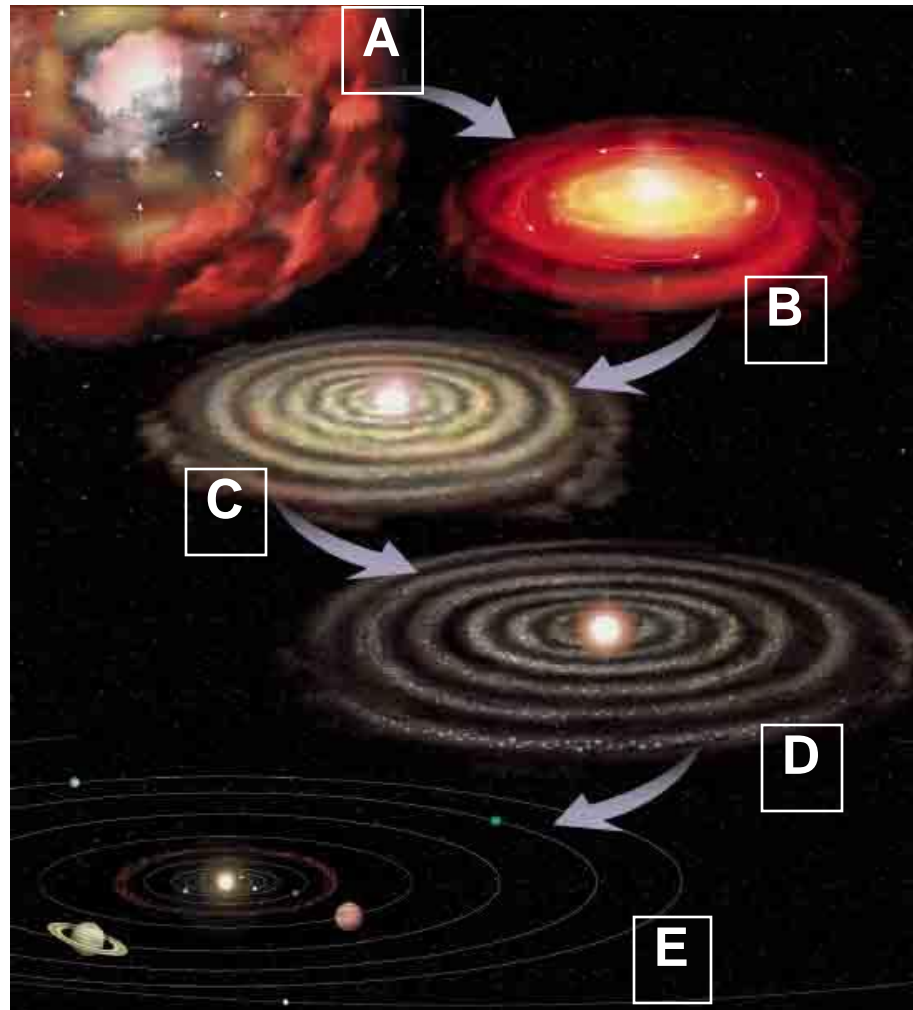
Formation of our Solar System

- ◆ Most researchers conclude that Earth and the other planets formed at essentially the same time.
- ◆ Nebular Hypothesis
 - The solar system evolved from an enormous rotating cloud called the solar nebula.

◆ Nebular Hypothesis- Timeline

- 1st.** The nebula was composed mostly of hydrogen and helium.
- 2nd.** About 5 billion years ago, the nebula began to contract.
- 3rd.** It assumed a flat, disk shape with the protosun (pre-Sun) at the center.
- 4th.** Inner planets begin to form from metallic and rocky clumps.
- 5th.** Larger outer planets began forming from fragments with a high percentage of ices.

The Nebular Hypothesis



1.1 What Is Earth Science?

Formation of Earth

◆ Layers Form on Earth

- As Earth formed, the decay of radioactive elements and heat from high-velocity impacts caused the temperature to increase.
- Lighter rocky components floated outward, toward the surface.
- Gaseous elements escaped from Earth's interior to produce the primitive atmosphere.