## How the Solar System was Made

(The Universe: Season 6, Episode 3)

Start a new page in your class notebook (*don't forget to include title, date, page #, ToC*). For your video notes, place the following steps of the solar system's creation, 4.5 million years ago, in the correct order.

- Supernova: nearby star explodes (seeds our nebula with heavy elements)
- Migration: some planetesimals and protoplanets continue to get bigger, some break up and get smaller, some bodies migrate in towards Sun, others migrate out away from Sun until we have the solar system today!
- <u>Contraction</u>: nebula starts to collapse and spin into disk shape, (possibly kickstarted by shock wave from supernova)
- <u>Solar Nebula</u>: cloud of dust and gas floating in space (mostly light hydrogen and helium)
- Sun Forms: protostar ignites and becomes the Sun, resulting super solar wind blows away most dust and gas, gas giants form around some protoplanets
- <u>Accretion</u>: dust grains begin to clump together into larger planetesimals (asteroid sized), then they keep clumping into larger protoplanets (moon/planet sized)
- <u>Protostar</u>: center of nebula become large mass and begins to heat up

