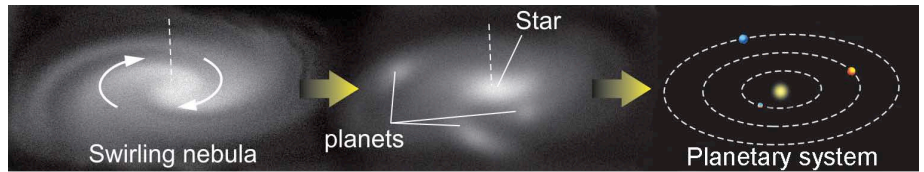


The solar nebula changes

Once our solar nebula collapses, things happen quickly (on a cosmic scale!) The dark clouds collapsed, matter in the clouds got closer and closer together. The gas and dust particles moved at a faster rate. The center of the cloud got hotter and hotter and hotter. **And it keeps changing...** Before you know it... the dust and gas begins to rotate slowly around the hot center and the solar nebula flattens into a disk.

Planetesimals Form

With so many collisions happening in this swirling vortex of cloud, bits of dust start sticking together. This dust begins to form the building blocks of _____ called _____.



Planets Form

The biggest planetesimals collect more and more of the dust & gas and eventually become a _____.

Inner & Outer Planets Form

The _____ planets (or _____ planets)-Jupiter, Saturn, Uranus and Neptune, were all able to collect a ton of dust in the cooler, outer solar nebula. Once they grew large enough, their gravity was strong enough to attract the nebula gases, hydrogen and helium. The _____ planets (or _____ planets) - Mercury, Venus, Earth & Mars, couldn't take the heat and all of the gases burned off, leaving only the rocky parts.

What makes an inner planet different from an outer planet?

Inner Planets:

- _____
- _____
- _____ atmosphere
- Few or no _____
- _____ core in Earth & Mars

Outer Planets:

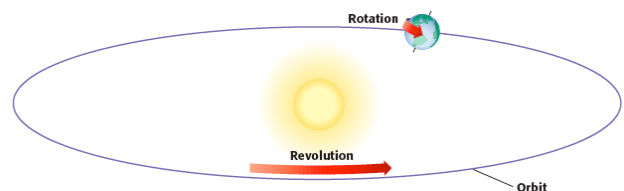
- Mostly _____
- _____ atmosphere
- _____ moons
- _____ core
- not dense

Planetary Motion: Rotation

The Earth spins, or _____, around its axis. Only 1/2 of the earth faces the sun at any given time. As the earth rotates, different parts of the Earth receive sunlight. The half facing the sun is _____ (_____), and the half facing away from the sun is _____ (_____). Did you know we're all a little crooked?? The Earth's axis is tilted 23.5° . The Earth also rotates very quickly - 1000 miles per hour! How long does it take the Earth to complete one rotation (or one spin around its axis)? It takes one day - or 24 hours.

Planetary Motion: Revolution

The Earth also travels around the sun in a path called an _____. The motion around the sun along its orbit is called a _____. The other planets ALSO revolve around the sun on their orbits. How long does it take the Earth to revolve around the sun? The Earth revolves around the sun in 365 days or 1 year. We call this the _____. Make sure you know the difference between revolution & rotation!!!!



Question of the day

Why do we have seasons??? Does the Earth get closer to the sun for summertime to occur???? _____ The placement of the Earth in orbit has NOTHING to do with seasons The seasons are caused by _____. Hey, didn't I warn you that we're all a little crooked? In the summer, the Northern Hemisphere is tilted toward the sun. In the winter, the Northern Hemisphere is tilted away from the sun. In fact, Earth is actually closest to the sun during the Northern hemisphere's winter.

