How did our solar system come to be?

National Aeronautics and Space Administration

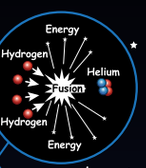
4.6 Billion Years Ago

It all began about 4.6 billion years ago in a wispy cloud of gas and dust.

This cloud was a small part of a much bigger cloud.

At some point, part of the cloud collapsed in on itself—possibly because the shockwave of a nearby supernova explosion caused it to compress.

The result: a flat spinning disk of dust and gas.



Nuclear fusion occurs when hydrogen atoms fuse into helium.

When enough material collected at this disk's center, nuclear fusion began. Our sun was born. It gobbled up 99.8% of all the material.

These clumps became planets, dwarf planets, asteroids, comets, and moons.

The material left behind by the sun clumped together into bigger and bigger pieces.

Present

Only rocky things could survive close to the sun, so gaseous and icy material collected further away. That's how our solar system came to be the place it is today!

Comets and asteroids are the left over remains of the solar system's formation.

Space Place in a Snap!

www.nasa.gov

For more information, visit **spaceplace.nasa.gov/solar-system-formation**