Time Line of the Universe

0 seconds
The universe, tinier than a speck of dust, pops into existence. It is billions of times hotter than our sun.

first fraction of a second
The entire universe expands dramatically in the blink of an eye.

first second
The universe cools to below 18 billion °F (10 billion °C), and neutrons, protons, and electrons begin to form. All the protons, neutrons, and electrons around today were made in the Big Bang when the universe was only a second old.

first 3 minutes
The universe keeps cooling. Protons, neutrons, and electrons begin to stick together. The centers of the first atoms form.

300,000 years
The universe expands enough for light to flow freely across space. The light allows the universe to be seen for the first time. Most of the helium and hydrogen atoms in the universe today were created by this time. (This includes all the helium used to blow up floating balloons.)

1–3 million years
Helium and hydrogen atoms clump together into clouds of gas that will become stars.

100 million years
The first stars begin to shine. In the hearts of stars, even bigger atoms form. Every time a star dies and explodes, even more atoms form and are spread out across the universe.

9 billion years
A cloud of gas in the Milky Way galaxy comes together, forming our sun and its planets. One of these planets is Earth.

10 billion years
The first life on Earth appears in the oceans. Eventually these simple life-forms evolve into plants, fish, dinosaurs, birds, and mammals, including humans.

13 ¾ billion years
Today the universe is still expanding. Our sun is still surrounded by eight planets. Animals and plants still exist on Earth. And humans keep trying to learn as much as possible about the world around us and how it all began.

Note: Time line not to scale.

Illustrations ©2010 by Nancy Davis from *Older Than the Stars* by Karen C. Fox, published by Charlesbridge www.charlesbridge.com