The Big Bang Theory

Earth formed around 4.54 billion years ago, approximately one-third the age of the universe, by accretion from the solar nebula. Volcanic out gassing probably created the primordial atmosphere and then the ocean, but the early atmosphere contained almost no oxygen. The Big Bang is a scientific theory about how the universe started, and then made the stars and galaxies we see today. The universe began as a very hot, small, and dense super force (the mix of the four fundamental forces), with no stars, atoms, form, or structure. Stephen Hawking has said that "Since events before the Big Bang have no observational consequences, one may as well cut them out of the theory, and say that time began at the Big Bang. Events before the Big Bang, are simply not defined, because there's no way one could measure what happened at them."

In 1927, the Belgian Catholic priest Georges Lemaitre proposed an expanding model for the universe to explain the observed redshirts of spiral nebulae, and calculated the Hubble law. He based his theory on the work of Einstein and

De Sitter, and independently derived Friedman's equations for an expanding universe. The model describes how the universe expanded from a very high-density and high-temperature state, and offers a comprehensive explanation for a broad range of phenomena, including the abundance of light elements, the cosmic microwave background

(CMB), large scale structure and Hubble's law.

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