

The Cosmic Walk and the Story of the Universe

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Narration accompanies Illustrations by Marion Honors, CSJ

1. The Universe begins approximately fifteen billion years ago as the primordial flaring forth of stupendous energy out of Ultimate Mystery. Hydrogen and helium form and EVERYTHING, all of creation, unfolds from them.
2. The first stars appear after a billion years. They expand then collapse into themselves, forming carbon, oxygen, sulfur, and iron. These are some of the elements necessary for life. This process continues for billions of years, into our own time, creating a trillion galaxies, each with billions of stars.
3. 4.6 billion years ago, in our Milky Way Galaxy, our mother star explodes in a flash of brilliance. From the rich gaseous debris come tungsten, copper, fluorine, silver, silicon, elephants, tabby cats, butterflies, Mozart, and OURSELVES!
4. 100 million years later, our star, the sun, is born.
5. 100 million years later, the Earth and the other planets in our solar system form. Earth is full of fire and creativity. As it cools, its surface develops a crust. Vapor escapes from its boiling interior, forming clouds. Rain begins; it lasts for centuries, forming the oceans, cooling the surface further and hardening it into rock.
6. Four billion years ago, bacteria emerge – EARTH AWAKENS. Life begins!
7. Two billion years ago there is an oxygen crisis on Earth. In the sea there are bacteria emitting so much oxygen into the atmosphere that life is threatened. So Earth invents an oxygen-using microbe. We still have in the cells of our bodies, descendants of those first oxygen-using microbes.
8. A little over a billion years ago, cells joined with each other for survival and development, sexual reproduction begins. Animals start eating each other.
9. Six hundred million years ago, worms and jellyfish appear with the first nervous systems.
10. Five hundred million years ago, fish emerge. Now the nervous system is protected by bone, a key development for further complexity.
11. Four hundred and twenty-five million years ago, life moves onto the land.

12. Insects come, three hundred and ninety-five million years ago.
13. Three hundred and seventy million years ago, the first trees and amphibians.
14. Three hundred and thirty million years ago, wings for the insects!
15. Two hundred and thirty-three million years ago, dinosaurs and FLOWERS.
16. BIRDS, one hundred and fifty million years ago.
17. One hundred and sixteen million years ago, the first mammals.
18. Whales, the largest marine animals of all time, emerge twenty-five million years ago. Grass spreads across the land, twenty-four million years ago.
19. A little over two and a half million years ago, the first humans appear on Earth.
20. Five hundred thousand years ago, clothing, shelter, fire. One hundred thousand years ago, ritual burials. Forty thousand years ago, human language begins.
21. Thirty-two thousand years ago, the first musical instruments are made. Twenty thousand years ago, spears, bows and arrows are used for the first time. Ten thousand years ago, farming begins.
22. Thirty-five hundred years ago, the rise of the Great Civilizations. Two thousand years ago, Jesus is born. Four hundred years ago, the rise of the modern nations begins. Earth is seen from space about 40 years ago.
23. TODAY! (The story continues to unfold.)