



What is Life ?

Before life appeared on Earth, the universe - as far as we know - was just full of floating rocks and gas. Spinning rocks. Planets, moons, suns, comets, asteroids, black holes and other crazy cosmic things. Floating around in space. Crashing into each other.

But there was no life. Nothing that could gaze at a moon and wonder what it was. Nothing that could feel the heat of a sun. Nothing that could sense the wind.

There were also no clocks. There was no life to look at a clock. So there was no time. No morning, no afternoon, no midnight, no week, no month, no year, no million years, no billion years. Without any life watching it, the universe just went about doing whatever it was doing.

So did the universe exist if there was no life to actually sense it? To see it, feel it. Gasp at its wonders?

Then, about 4 billion years ago the first life appeared on Earth. We still don't know how it happened. Maybe a reaction between chemicals. Maybe a meteor crashed on Earth which had life crawling around on it. Or maybe a God used their magic power to make it appear. Whichever event is true, life had arrived. To start with it appeared as single cell animals which lived in the ocean. Tiny creatures which lived deep down at the bottom of the ocean, where water is heated to over 350C (700 F) by the hot magma from the centre of the earth.

These single cells really really wanted to "live". We don't know why, but they did. They had a built-in survival plan which is called evolution. This process of evolution is ongoing, and happening all around us even now. All plants, trees, birds, fish, dogs, horses, giraffes, monkeys, rhinos and every other living thing on Earth is EVOLVING. Every time a plant grows from a seed or a baby animal is born, that is one small step forward in evolution. The baby has changed just a little bit from its parents - so hopefully it fits better with the environment around it. Our incredible scientists can now look back over millions of years and see evidence of how single cell animals EVOLVED into bigger and bigger animals. Eventually lots of different sea creatures appeared like octopus, fish and whales. Then some sea creatures EVOLVED to live on the land! They grew legs and learned to walk! That's when dinosaurs appeared. EVOLUTION KEPT GOING - birds which could fly, elephants, lions, monkeys and eventually humans!!! The time taken from the first signs of life on Earth to evolve into a human took around 3.7 billion years according to our experts. So far we have not found life anywhere else in the Universe, but the search is always going on!



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