

Example of essay on the evolutionary history of life

[Literature](#), [Russian Literature](#)



[Title Here, up to 12 Words, on One to Two Lines]

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The evolutionary history of life on Earth goes back to the processes by which living and fossil organisms have formed since life on the planet first originated. Earth and the life inside its surface are estimated to be formed billion of years ago. The similarities between the current living forms signal the existence of a common origin from which all known species have branched off through the process of evolution.

In the year 2004, Scientists took the initiative to synthesize polio-virus. Initially they used chemicals to produce it, which involved several high techniques and finally produced a poliovirus. It was found that the genetic code of poliovirus was in the form of RNA and thus the sequence of the RNA nucleotide was known. The first step consisted of forming a DNA molecule, which when transcribed, gave birth to the exact RNA molecule. The DNA was synthesized from the individual nucleotides and used to make the poliovirus RNA. The scientists then kept the RNA into a culture made from human cells. The cells were ground up and large structures, such as nuclei, were removed. When the RNA was placed in this content, it resulted in the formation of the proteins that make the covering for the virus. The scientists started with individual chemical unit and ended up with a functional poliovirus. Although viruses are not cells, they show few similarities to living things. It is still a question that if this experiment means that we will be able to create living things from scratch? It is still unclear as to what were the conditions that could have allowed for the creation of the first living things

on Earth billion of years ago.

The ecosystem of the earth depends upon photosynthesis to obtain the fuel that all life requires. In the past, with conditions similar to the present day, it requires plants as organisms which can make the complex "fuel" molecules using simple components and energy obtained from the environment. This became an unending problem to theorists, because the processes of photosynthesis are too complex to have formed voluntarily from no single thing under present-day factors.

A carbonaceous chondrite meteorite was discovered in Antarctica which was found to contain fossils of bacteria. This obviously gives evidence to the fact that life had origins somewhere other than earth. Although the researchers' findings are still contradicting, the meteorite contains fossilized remnant that could be a primitive form of bacteria. In the early beginnings, living things only needed three characteristics, the potential to self-organize, the ability to reproduce themselves and the capacity to evolve. Ultimately, to evolve into the life we see on earth today, it required DNA-based information coding system, a complicated protein-based chemistry, and a cell membrane organization. When everything is put together, a simple prokaryote is obtained.

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