

Clearing Up the Confusion with Evolution

Video Transcript

In science, we understand a “theory” to be a body of thoroughly tested and verified explanations for a set of observations of the natural world. An established scientific theory has survived significant efforts to discredit it by other scientists.

Currently accepted scientific theories include the theory of the atom, a theory of gravity, and the theory of relativity: each of which describes understood facts about the world. The theory of evolution does not try to explain the origin of life, instead it describes facts about the living world.

Evolution addresses the change in a population, not the change in an individual. The theory of evolution explains how populations change over time and how life diversifies the origin of species. DNA allows for natural selection, so more effective reproducers increase in frequency at the expense of inefficient reproducers.

While evolution does not explain the origin of life, it may have something to say about natural selection. Species do not become “better” over time. Evolution has no goal of making faster, bigger, more complex, or even smarter species. Certain organisms, ourselves included, are described as the “pinnacle” of evolution, or “perfected” by evolution. The characteristics that evolve in a species are a function of the variation present and the environment, both of which are constantly changing in a non-directional way. A trait that is a good fit in one environment at one time may well be fatal at some point in the future. This holds equally well for a species of insect as it does the human species.

About this transcript:

- Transcript title: Clearing Up the Confusion with Evolution
- Corresponding Lesson: Common Misconceptions about Evolution

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