

Statement of participation

Muhammad Farid Wajdi Makkulau

has completed the free course including any mandatory tests for:

Evolution through natural selection

This 4-hour free course described the theory of evolution by natural selection as proposed by Darwin in his 1859 book, *On the Origin of Species*.

Issue date: 18 September 2025

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This statement does not imply the award of credit points nor the conferment of a University Qualification.
This statement confirms that this free course and all mandatory tests were passed by the learner.

Please go to the course on OpenLearn for full details:

<https://www.open.edu/openlearn/nature-environment/natural-history/evolution-through-natural-selection/content-section-0>

COURSE CODE: **S103_1**

Evolution through natural selection

<https://www.open.edu/openlearn/nature-environment/natural-history/evolution-through-natural-selection/content-section-0>

Course summary

In this free course, Evolution through natural selection, we describe the theory of evolution by natural selection as proposed by Charles Darwin in his book, first published in 1859, *On the Origin of Species by Means of Natural Selection, or The Preservation of Favoured Races in the Struggle for Life*. We will look at natural selection as Darwin did, taking inheritance for granted, but ignoring the mechanisms underlying it.

Learning outcomes

By completing this course, the learner should be able to:

- understand that by biological evolution we mean that many of the organisms that inhabit the Earth today are different from those that inhabited it in the past
- understand that natural selection is one of several processes that can bring about evolution, although it can also promote stability rather than change
- understand that the four propositions underlying Darwin's theory of evolution through natural selection are: (1) more individuals are produced than can survive; (2) there is therefore a struggle for existence; (3) individuals within a species show variation; and (4) offspring tend to inherit their parents' characters
- understand that the three necessary and sufficient conditions for natural selection to occur are: (1) a struggle for existence; (2) variation; and (3) inheritance
- understand that Endler's experiment with guppies demonstrated that evolution through natural selection can occur in relatively few generations.

Completed study

The learner has completed the following:

Section 1

Charles Darwin

Section 2

Darwin and natural selection

Section 3

Natural selection in the guppy

Section 4

Other influences on evolution