

Biology Chapter 13

Chapter Objectives: The Theory of Evolution

- The theory of evolution by natural selection
Darwin proposed a mechanism for evolution
Evolution by natural selection
Darwin's ideas updated
- Evidence of evolution
The fossil record
Anatomy and development
Biological molecules
- Examples of evolution
Natural selection at work
Formation of new species

Vocabulary	<i>At the end of this unit, you should be able to:</i>
<div>All words</div> <ol style="list-style-type: none">1. Population2. Natural selection3. Adaptation4. Reproductive isolation5. Gradualism6. Punctuated equilibrium7. Paleontologist8. Vestigial structure9. Homologous structure10. Divergence11. Convergence12. Speciation13. Subspecies14. Evolution15. Evidence	<ul style="list-style-type: none">• Identify several observations that led Darwin to conclude that species evolve• Relate the process of natural selection to its outcome• Summarize the main points of Darwin's theory of evolution by natural selection as it is stated today• Contrast the gradualism and punctuated equilibrium models of evolution• Describe how the fossil record supports evolution• Summarize how biological molecules such as proteins and DNA are used as evidence of evolution• Infer how comparing the anatomy and development of living species provides evidence of evolution• Identify four elements in the process of natural selection• Describe how natural selection has affected the bacteria that cause tuberculosis• Relate natural selection to the beak size of finches• Summarize the process of species formation