

Modern Synthesis: Before and After

Before the Modern Synthesis

Extinctions: Georges Cuvier

Uniformitarianism: Charles Lyell

Evolution by Natural Process: Jean Baptiste Lamarck

After the Modern Synthesis

Genetics: Gregor Mendel

Evolution: Darwin

Evidence of Evolution

Fossil Evidence	Homologies	Distribution of Time and Space	Evidence by Example
	Homologies: Anatomy	Chronology	Artificial Selection
	Homologies: Comparative Anatomy		Ecology
Transitional Forms	Homologies: Developmental Biology	Geography	Experiments
	Homologies: Cellular and Molecular Evidence		Nested Hierarchies

15 Evolutionary Gems

Gem	Evidence	Description
1	Fossil Record	Land-Living Ancestors of Whales
2	Fossil Record	From Water to Land
3	Fossil Record	The Origin of Feathers
4	Fossil Record	The Evolutionary History of Teeth
5	Fossil Record	The Origin of the Vertebrate Skeleton
6	Habitats	Natural Selection and Speciation
7	Habitats	Natural Selection in Lizards
8	Habitats	A Case of Coevolution

9	Habitats	Differential Dispersal in Wild Birds
10	Habitats	Selective Survival in Wild Guppies
11	Habitats	Evolutionary History Matters
12	Molecular Processes	Darwin's Galapagos Finches
13	Molecular Processes	Microevolution meets microevolution
14	Molecular Processes	Toxin Resistance in Snakes and Clams
15	Molecular Processes	Variation vs. Stability

You should integrate the following vocabulary, where appropriate into your Interactive Notebook:

Law of Superposition Homologous Structures Analogous Structures Vestigial Structures
 Convergent Evolution Divergent Evolution Embryology Punctuated Equilibrium
 Gradualism