



## Adult Books

Benz, Richard. ***Ecology and Evolution: Islands of Change***. Arlington, VA: NSTA Press, 2000.

This book takes big, complex ideas—how ecological pressures shape the evolutionary processes of genetics, adaptation, and natural selection—and anchors them in a setting kids will love learning about: the Galápagos Islands. The hands-on activities, games, and investigations in *Ecology and Evolution* will guide your students to explore integrated topics from biology and Earth science.

Cameron, David W. ***Bones, Stones, and Molecules: "Out of Africa" and Human Origins***. Burlington, MA : Elsevier Academic Press, 2004.

*Bones, Stones and Molecules* provides some of the best evidence for resolving the debate between the two hypotheses of human origins. The debate between the 'Out of Africa' model and the 'Multiregional' hypothesis is examined through the functional and developmental processes associated with the evolution of the human skull and face and focuses on the significance of the Australian record.

Dennett, Daniel Clement. ***Darwin's Dangerous Idea: Evolution and the Meanings of Life***. New York: Simon & Schuster, 1995.

One of the best descriptions of the nature and implications of Darwinian evolution ever written, it is firmly based in biological information and appropriately extrapolated to possible applications to engineering and cultural evolution. Dennett's analyses of the objections to evolutionary theory are unsurpassed.

Eldredge, Niles. ***Darwin: Discovering the Tree of Life***. New York: W.W. Norton & Company, 2005.

More than a biography of Darwin or an explanation of natural selection, this book reveals the intellectual and intuitive leaps taken by the man who spawned the theory of evolution.

Guttman, Burton. ***Evolution a Beginner's Guide***. Oxford, England: Oneworld, 2005.

This book assumes no previous scientific knowledge of evolution, providing the perfect introduction for anyone who wishes to understand what evolution is and why it matters now more than ever before.

Margulis, Lynn. ***Microcosmos : Four Billion Years of Evolution From Our Microbial Ancestors***. New York: Summit Books, 1986.

Microcosmos brings together the remarkable discoveries of microbiology of the past two decades and the pioneering research of Dr. Margulis to create a vivid

new picture of the world that is crucial to our understanding of the future of the planet. Addressed to general readers, the book provides a beautifully written view of evolution as a process based on interdependency and the interconnectedness of all life on the planet.

Skehan, James W. ***The Creation Controversy & the Science Classroom***. Arlington, VA: NSTA Press, 2000.

In the debate over creationism, you need ammunition that will let you respond to the opposition in a forceful but reasoned manner. This is it. Organized into three practical parts, *The Creation Controversy* arms you with insights into modern science and the Book of Genesis, effective strategies for teaching evolution and other controversial topics, and the NSTA Position Statement on Evolution.

Watson, James D., ed. ***Darwin: The Indelible Stamp the Evolution of an Idea***. Philadelphia, PA: Running Press, 2005.

With this exciting anthology, readers can trace the evolution of Darwin's own thoughts as he challenged conventional wisdom, unveiled fundamental laws of nature, and documented the outstanding power and creativity that drives evolution.

## Young Adult Books

Bertolucci, Cristiano. ***Animals of the Past and Present***. Columbus, OH: Waterbird Books, 2003.

Young readers are guided in a tour around the five continents, through parks and areas near to cities. They will discover animals that alternate living in these habitats during night and day, in the past and present, above and below the water, and in hot and cold weather. A two-page spread explains the classification of the animals found in the book, and four pages are devoted to identifying specific animals in each family.

Gamlin, Linda. ***Eyewitness: Evolution***. NY: Dorling Kindersley, 1993.

The theory of evolution changed our understanding of the natural world -- and Eyewitness Evolution is the perfect way to learn more about it! Discover what life was like millions of years ago; how new species develop; and learn why pandas have false thumbs and penguins stand upright. Superb full-color photographs of animals, plants and fossils make this book a compelling look at evolution.

Lawson, Kristan. ***Darwin and Evolution for Kids: His Life and Ideas, With 21 Activities***. Chicago, IL: Chicago Review Press, 2003.

The book begins with a description of Darwin's family life, privileged childhood, and education. His five-year voyage on the *Beagle*, during which he collected specimens to send back to England, is vividly described. The author places

Darwin's ideas in context with those of other philosophical and scientific thinkers, tracing the work of both his predecessors and contemporaries.

Lindsey, William. ***Eyewitness: Prehistoric Life***. NY: Dorling Kindersley, 1995.

For 4,600 million years, there has been some form of life on Earth. At first, the Earth was a mass of raging fires and volcanoes, so early forms of life began in the seas. *Prehistoric Life* tells the story of these and the succeeding life forms -- everything from microscopic organisms to early humans.

Peters, Lisa Westberg. ***Our Family Tree: An Evolution Story***. San Diego, CA: Harcourt, 2003.

All of us are part of an old, old family. The roots of our family tree reach back millions of years to the beginning of life on earth. Open this family album and embark on an amazing journey. You'll meet some of our oldest relatives--from both the land *and* the sea--and discover what we inherited from each of them along the many steps of our wondrous past.

Sloan, Christopher. ***The Human Story: Our Evolution from Prehistoric Ancestors to Today***. Washington, D.C.: National Geographic, 2004.

Drawing on evidence from fossils and DNA, this authoritative overview of human evolution goes back 6,000,000 years to a time when humans and chimpanzees had a common ancestor. Then the focus moves to *Homo sapiens*, a species that has lived on Earth for only 200,000 years.

## Media

***Adapting to the World [DVD]***. 52 min. Discovery School, 2004.

Change is constant in the natural world. The four segments of this DVD demonstrate how adaptations have enabled various species to evolve and thrive. Through familiar examples, students gain better understanding of how adaptation works. Grades: 6-12.

***Charles Darwin: Evolution's Voice [DVD]***. 50 min. A&E Biography, 2005.

From his historic voyage on the *Beagle* to his personal anguish over publicizing his findings, this is a fascinating profile of the life and times of the great naturalist. Excerpts from his journals detail his discoveries while leading scientists and scholars, including the author of *Charles Darwin: Evolution of a Naturalist*, shed light on his private life, public persona and monumental legacy.

***Bill Nye the Science Guy: Evolution [VHS]***. 26 min. Disney, 1996.

Bill Nye compares primordial to present when he dabbles with Darwin and looks at his genes in this evolutionary episode. Explore the surprising similarities shared by all living things and ponder the possibility that birds evolved from dinosaurs. (This video also contains the episode *Comets and Meteors*). Grades 3-12.

***Animal Life in Action: Evolution [VHS].*** 23 min. Schlessinger Media, 1999.

The story of evolution starts with the study of fossils that helps scientists link today's living organisms with those of the past. Students will study the changes in species over thousands of years and see how animals that best adapt to their environment are able to survive and reproduce. A fun, hands-on experiment is included. Grades 5-8.

***Evolution: Constant Change and Common Threads [DVD].*** 240 min. HHMI, 2005.

How has the amazing diversity of plants and animals evolved? What can fossils, butterflies, and stickleback fish tell us about the deep common ancestry of all living forms? In four presentations, Dr. Sean B. Carroll and Dr. David M. Kingsley explore how key developmental genes, natural selection, and time fuel the evolutionary process. They also discuss how Charles Darwin's ideas about evolution ignited a revolution in biology that continues to this day.

***Evolution [DVD & VHS].*** 480 min. WGBH, 2001.

*Evolution* offers a groundbreaking and definitive view of the extraordinary impact the evolutionary process has had on our understanding of the world around us. Beginning with Darwin's revolutionary theory, this seven-part series explores all facets of evolution -- the changes that spawned the tree of life; the power of sex; how evolution continues to affect us every day; and the perceived conflict between science and religion. Includes "Darwin's Dangerous Idea," "Great Transformations," "Extinction!," "The Evolutionary Arms Race," "Why Sex?," "The Mind's Big Bang," and "What About God?" High School - Adult.

***Greatest Discoveries with Bill Nye: Evolution [DVD].*** 45 min. Disney, 2005.

Explore the history of paleontology, beginning at the site of an asteroid that may have brought about the demise of the dinosaurs. Visit Bob Ballard, who discovered new deep-sea life forms, and Douglas Erwin, who demonstrates how fossils provide a vivid snapshot of prehistoric life. Explore Linnaeus' 1735 species classification system and a dramatic re-creation of Darwin's development of his 19th-century theory of evolution. Grades: 6-12.

***Neanderthals on Trial: Were Neanderthals our ancestors... or an evolutionary dead-end? [VHS].*** 60 min. WGBH/NOVA, 2002.

Were Neanderthals our ancestors... or an evolutionary dead-end? Were Neanderthals human, like us? Or were they subhuman brutes? Exploring one of the most contentious debates in human origins, *Neanderthals on Trial* offers a surprising look at how the science works, and how investigators sometimes fool themselves into seeing what they want to see.

***Planet of Life: The Birth of Earth and Ancient Oceans, Vol. 1 [VHS].*** 90 min. Discovery Channel, 1995.

From the simplest microorganism to the complex species that is humankind, the evolutionary development of every living creature has been marked by life and

death struggles. Now this epic story is chronicled in Planet Life. Explore the primordial planet and find out how life emerged from a sea of toxins in The Birth of Earth. Descend into the deep of Earth's Ancient Oceans to witness the explosion of life preserved today in the Burgess Shale.

***Planet of Life: When Dinosaurs Ruled; Creatures of the Sky, Vol. 2 [VHS].*** 90 min. Discovery Channel, 1995.

Ancient creatures of the sea and river blaze a new evolutionary trail with their first pioneering steps on land in this exciting chapter in the story of life. Travel to a time zone millions of years old- the era when the largest creatures to walk the planet dominated the landscape-in when Dinosaurs Ruled. Soar through the atmosphere with pterosaurs, the first flying vertebrates, and unravel the mysterious origins of birds in Creatures of the Skies. Grades 6-12.

***Planet of Life: The Insect World and Apes to Man, Vol. 3 [VHS].*** 60 min. Discovery Channel, 1995.

Why do some life forms thrive on planet Earth while others vanish to extinction? Discover the survival strategies and unique adaptations developed by one of Earth's most successful species in the Insect World. Then climb our family tree in Apes to Man to find out how the unpredictable forces of evolution shaped our primate ancestors and Earth's first hominids.

***Planet of Life: Evolutions Next Step, Vol. 4 [VHS].*** 50 min. Discovery Channel, 1995.

In little more than a few generations, humankind has altered the balance of Earth's fragile ecosystems- polluting waters, ransacking natural resources, and overpopulating the landscape. Can the human species survive on Earth? If not, where do we go from here? In Evolution's Next Step scientists study alternatives for the distant future-perhaps even making other planets habitable for human life.