Unlocking the Mystery of Life

This video is a classic. It begins a little slow, but the animations added as it progresses are very well done, and give you a glimpse of the wonders of biological life. The resolution is not as good as the DVD version, but it is free online. Click on the first video and the entire list of twelve chapters will play automatically. If you would like to go to any particular chapter, click on it to begin there. The times listed under each chapter are based on starting at that chapter. You can click on any chapter and scroll to the time listed under it to get to a particular starred subject. Enjoy! You can find more stunning videos from Illustra Media online here: https://www.youtube.com/user/IllustraMedia/playlists

Video: Unlocking the Mystery of Life (Chapter 1 0f 12)

- ★ 0:20 Pajaro Dunes, California, 1993 Prof. Phillip Johnson, UC Berkely
- ★ 1:08 Dr. Paul A. Nelson
- ★ 1:27 Dr. Dean H. Kenyon
- ★ 1:44 Dr. Michael J. Behe
- ★ 1:55 Dr. Stephen C. Meyer

Video: Unlocking the Mystery of Life (Chapter 2 of 12)

- ★ 0:12 1831 At age 22, Charles Darwin sets sail on a five-year expedition for the British Empire aboard the H. M. S. Beagle. They stop at the Galápagos Islands.
- ★ 1:21 In 1859 Darwin published ON THE ORIGIN OF SPECIES BY MEANS OF NATURAL SELECTION OR THE PRESERVATION OF FAVOURED RACES IN THE STRUGGLE FOR LIFE. Its impact on science and all western culture was dramatic. Not design, but time, chance, and natural selection were thought to explain the origin and diversity of life.
- ★ 2:17 Darwin was not the first scientist to propose a theory of evolution, but he was the first to offer a plausible naturalistic mechanism that could produce biological change over long periods of time-- natural selection.
- ★ 2:58 Contemporary Darwinian Theory
- ★ 3:49 Functional Advantage
- * 4:35 Over time, without any intelligent direction, forms of life could be gradually altered.
- ★ 5:24 Darwin believed natural selection could give the appearance of design without a designer.
- ★ 6:14 Natural selection is a real process, and it works well for explaining certain limited kinds of variation. But can it explain, not just limited variation, but whole new organs, species, and even life itself?

Video: Unlocking the Mystery of Life (Chapter 3 of 12)

- ★ 0:13 Darwin: natural selection works by slow, short steps-- not sudden leaps
- ★ 0:50 Since 1988, Michael Behe has investigated complex biological systems that seem to defy explanation by natural selection.
- ★ 1:19 EVOLUTION: A THEORY IN CRISIS by Michael Denton
- ★ 2:25 The "simple cell" is no longer simple.
- ★ 3:03 Today, powerful technologies reveal elaborate, microscopic worlds.
- ★ 3:30 Molecular Machines
- ★ 4:26 Bacterial Flagellum
- ★ 5:20 Flagellar Motor -- "the most efficient machine in the universe"
- ★ 6:50 Irreducible Complexity

Video: Unlocking the Mystery of Life (Chapter 4 of 12) ★ 0:12 A mousetrap will not work unless all its parts are put together in the right order at one time. ☐ 1:48 Evolutionary theory needs to explain how a system can develop gradually when there is no function until all parts are in place. □ 4:22 Natural selection is an usually an eliminating process, not an innovating process. Video: Unlocking the Mystery of Life (Chapter 5 of 12) ★ 0:11 1996 - Michael Behe publishes DARWIN'S BLACK BOX □ 0:59 Behe's critics argued that he underestimated the power of natural selection. Parts from simpler "machines" could have been used to make more complex ones. This theory is called co-option. □ 2:17 Beyond having all the parts, there is the need for a plan, proper sequence, and "assembly line" to put all the parts in the right place at the right time. □ 3:06 Compare it to building a house, which must be erected in the proper order. □ 3:43 It is built from the inside out according to precise specifications. $\ \square$ 5:31 Darwin realized the difficulty such complexity would pose to his theory. Video: Unlocking the Mystery of Life (Chapter 6 of 12) 🖈 0:24 Two Big Questions in Biology: 1. How do you get new living forms with structures like wings and eyes from life that already exists? 2. How did the life originate on earth in the first place? □ 0:47 Charles Darwin compared the history of life on earth to a great branching tree. □ 1:26 Darwin had very little to say on how life originated on earth. □ 1:55 Darwin did little to develop his thoughts on the origin of life. Oparin developed the idea of chemical evolution from non-living molecules. □ 3:22 Dean Kenyon thought he had found the answer to the origin of life. □ 4:14 In 1969 BIOCHEMICAL PREDESTINATION was co-authored by Dean Kenyon and Gary Steinman. It became the leading textbook on the subject. Video: Unlocking the Mystery of Life (Chapter 7 of 12) ★ 0:12 A significant problem was how to explain the origin of large, complex proteins -- building blocks for every cell on earth. ★ 1:03 The 3D nature of proteins is found to be essential to their highly complex functions. ★ 1:46 Proteins are made up of long chains made from collections of the twenty individual amino acids which must be linked correctly and then folded up to form a functional shape. ★ 4:12 How did the amino acids achieve their precise arrangement? Dean Kenyon believed it could be explained by chemical attractions between the amino acids in proteins. ★ 5:23 Five years after publication of the best-selling text BIOCHEMICAL PREDESTINATION, Kenyon began to doubt his own theory. Video: Unlocking the Mystery of Life (Chapter 8 of 12) ★ 0:12 Kenyon was challenged by one of his students to explain how proteins could have been assembled without the help of genetic instructions. □ 0:32 DNA is necessary for protein construction, and Kenyon could explain the origin of DNA through natural processes. □ 1:12 A C T G □ 1:41 The Language of Life -- the most densely-packed and elaborately-detailed assembly of information in the known

Video: Unlocking the Mystery of Life (Chapter 9 of 12)

□ 4:15 What was the source of the biological information in DNA?

★ 0:13 By the 1970's, most researchers had rejected the idea that the information necessary to build the first cell originated by chance alone.

□ 1:13 By definition, natural selection could not have functioned before the existence of the first living cell, for it can only operate on organisms capable of reproducing themselves.
Video: Unlocking the Mystery of Life (Chapter 10 of 12) ★ 0:12 The hallmarks of intelligent design are illustrated with computer animation. □ 0:44 DNA Storehouses of Information □ 1:00 A process known as transcription □ 1:17 Instructions copied to messenger RNA □ 1:29 Messenger RNA carries copied information through the nuclear pore complex which is the gatekeeper for traffic in and out of the cell nucleus. □ 1:51 The messenger RNA strand is directed to a two-part molecular factory called a ribosome. □ 1:59 The process of translation begins. □ 2:43 The assembled amino acid chain is then folded into the shape critical to its function. □ 3:14 After the protein is completed, it is shepherded by another "machine" to the exact location where it is needed. "This is absolutely mind-boggling!"
Video: Unlocking the Mystery of Life (Chapter 11 of 12) ★ 0:13 "Biologists must constantly keep in mind that what they see was not designed, but evolved." - Francis Crick, Nobel Laureate, DNA Research □ 1:44 We make inferences to intelligence all the time as part of our ordinary reasoning. □ 2:47 THE DESIGN INFERENCE by William Demsky □ 3:03 Demsky thinks we recognize design by an improbable object having a recognizable pattern. □ 3:45 Black Hills carvings are an example. □ 5:11 "JOHN LOVES MARY" written on a seashore is another example. □ 5:58 INFORMATION = small probability & specification □ 6:19 SETI □ 7:40 If information from outer space would indicate an intelligent origin, does massive information in biological life indicate intelligence? □ 8:46 Bill Gates says DNA information is far more complex than computer code.
Video: Unlocking the Mystery of the Life (Chapter 12 of 12) ★ 0:12 Stephen Meyer says an I nference to the best explanation is that Intelligence is necessary to create information. □ 1:30 Here is a summary of the recent development of the theory of intelligent design. □ 2:00 This is a new tool that can be used by a healthy science that seeks the truth and let's the evidence speak for itself. □ 3:37 You go where the data leads you. If it leads to design, what's the problem? □ 5:02 FUNDAMENTAL ENTITIES IN SCIENCE 19th century: matter and energy 20th century: information (intelligence), matter, and energy