The Stuff of Life: A Graphic Guide to Genetics and DNA

Mark Schultz
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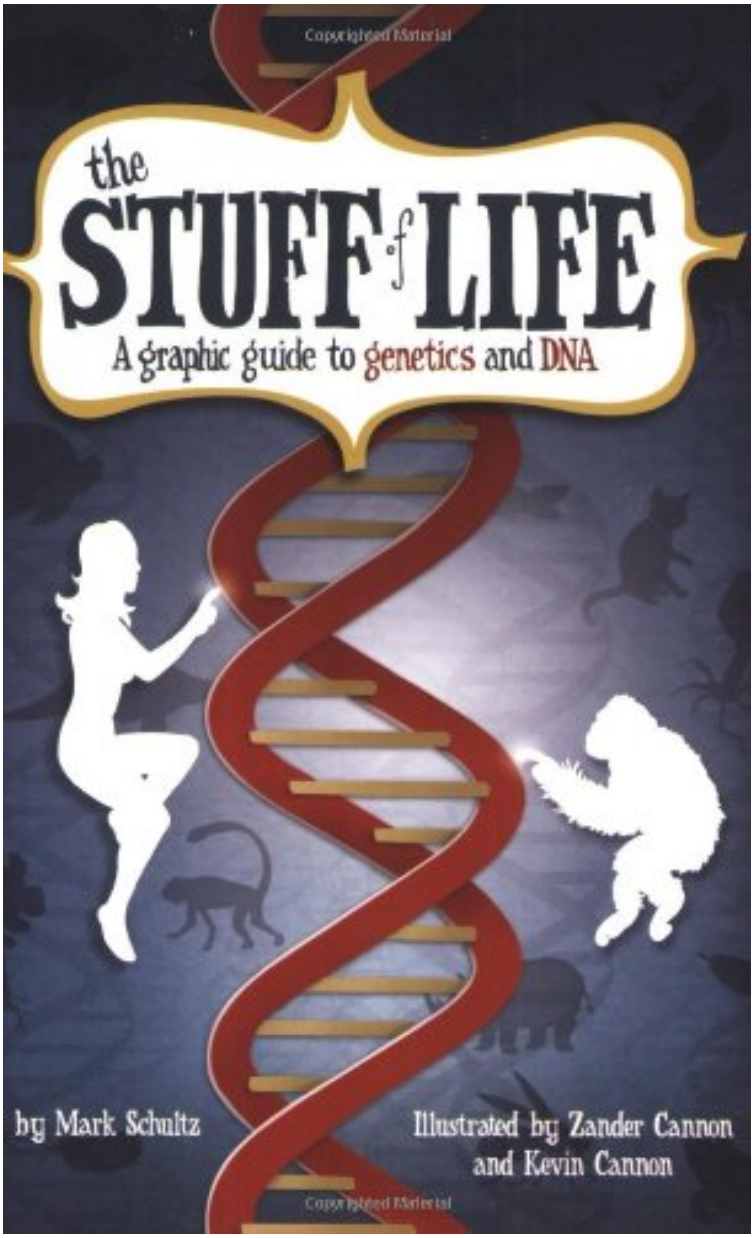

#17795 in Books Hill and Wang 2009-01-23 2009-01-23Original language:EnglishPDF # 1 230.12 x 11.30 x 6.04l, .50 #File Name: 0809089475150 pages | File size: 68.Mb

Mark Schultz : The Stuff of Life: A Graphic Guide to Genetics and DNA before purchasing it in order to gage whether or not it would be worth my time, and all praised The Stuff of Life: A Graphic Guide to Genetics and DNA:

6 of 6 people found the following review helpful. An invitation to think pictoriallyBy Jeremy M. HarrisThis wonderful

book uses the power of extensive, inventive graphics paired with well-chosen text to illustrate and explain many important aspects of genetics and DNA. It introduces concepts at a level basic enough for the general reader, but also includes material detailed and deep enough to interest an expert. The graphic style and panel layout are reminiscent of a comic book only in the best sense -- they make the reading experience rapid and effortless.For entertainment value the factual content is woven into a story involving hyperintelligent invertebrates which inhabit the planet Glargal and vaguely resemble sea cucumbers. The Glargalians are plagued by a heritable disorder which threatens their existence, and they have launched an extensive study of Earth creatures in an effort to understand and perhaps cure their own genetic affliction. The narrator of the book is the interplanetary biologist Bloort 183, who is reporting on his findings to the Glargalian leadership council. The obsequious behavior of Bloort toward the supreme leader provides comic relief, but the background story is wisely kept exactly that -- it interferes not at all with with the book's main objective, which is to transmit Bloort 183's copiously illustrated report directly to the reader.The story begins with a brief reprise of our planet's origin, the appearance of lightning-induced chemical compounds, their extension into self-reproducing molecules, and self-assembly of the first unicellular bacteria. More detail is added as the narrative progresses to multicellular organisms, prehistoric flora and fauna, and eventually hominids. The remaining 90 percent of the book explains and illustrates in considerable depth the reproductive and genetic characteristics of modern animals and humans, both at the cellular level and as expressed in the resulting variety among individuals.A primary source of the book's ability to sustain reader interest is the highly successful integration of text and graphics. An excellent script by Mark Schultz is ingeniously (and often humorously) rendered in a pictorial style that continuously illustrates why the bromide "a picture is worth a thousand words" has proved so durable. Mr. Schultz's job was to create a concise but comprehensive textual frame which allows the graphics to amplify the message with maximum impact and efficiency. In this he succeeds remarkably well, with interesting and significant points appearing on practically every page as the scientific framework of genetics and heredity unfolds logically (technical content was vetted for accuracy by David C. Bates).Helpful coverage is given to historical context, including the personalities and scientific discoveries underlying molecular biology. A series of ten special "perspective pages," distributed throughout the book, covers relevant background topics such as personalities related to DNA, the structure of chromosomes, the mechanics of inheritance, the politics of genetics, and common misunderstandings about mutants. An illustrated glossary helps with many of the technical terms which inevitably arise in texts reaching explanatory levels beyond the trivial.The artwork by Zander and Kevin Cannon (who are, incidentally, not related) is central to the ease with which the book clarifies difficult biological concepts. The clever graphical metaphors shamelessly anthropomorphize things like genes and proteins, but in such a broad and amusing way that no reader will be misled. Examples of outstanding graphical creativity abound, and one of the best is a portrait of the DNA molecule on page 26. I have seen many illustrative DNA schematics before, but this full-page portrait in extremely strong perspective, with well-chosen comments tucked in along the sides, is a virtuoso performance in vivid scientific communication. The base pair rungs and sugar-phosphate side chains stand out clearly without compromising the unavoidably complex spatial relationships enforced by the twisting dual helices.Overall, I found reading "The Stuff of Life" a delightful and enlightening experience.17 of 17 people found the following review helpful. So good I am teaching itBy Shawn StewartI bought this book because I am always looking for new ways to teach things to my high school students. After reading it, I went to my department head and (after he looked at the book) had little trouble convincing him to buy a classroom set to use to teach the basics of genetics. My class is now about half-way through the book and the students all seem to enjoy taking some time out to read (no mean feat in and of itself), and some have even said that seeing the pictures in the book has helped them with topics they were having trouble with.One word of warning is that some of the words used that are unrelated to science are a bit advanced (a great opportunity to teach more vocabulary), but the terms related to genetics are well explained and there is even a glossary to help students still having trouble.0 of 0 people found the following review helpful. The Stuff of LifeBy John CMy first impression of this book, when I realized that it was in comic book format, was "what a waste of money". My last impression, after reading and re-reading the book (because it was so good) was "what a most excellent book". I loved the good explanations coupled with the illustrations of every concept.

The Stuff of Life gives readers a complete introduction to the history of genetics that's as easy to understand as it is entertaining to read.

.com Lets face it: From adenines to zygotes, from cytokinesis to parthenogenesis, even the basics of genetics can sound utterly alien. So who better than an alien to explain it all? Enter Bloort 183, a scientist from an asexual alien race threatened by disease, who's been charged with researching the fundamentals of human DNA and evolution and laying it all out in clear, simple language so that even his slow-to-grasp-the-point leader can get it. In the hands of the award-winning writer Mark Schultz, Bloort's explanations give even the most science-phobic reader a complete introduction to the history and science of genetics. The Stuff of Life Revealed In the panels below, Bloort teaches his fellow alien about DNA. From School Library JournalGrade 10 UpThe Squinch, an asexual race from the planet Glargal, are suffering from a genetic crisis. In an effort to save them, interplanetary biologist Bloort 183 was

transmitted to Earth to study the evolutionary success of its life. He is now back and presenting his findings to his planet's leader. Much is packed into this book, which includes information on molecular and cellular life, the basic mechanics of genetics, key scientists who have made discoveries in genetics and DNA, and how they have been and are applying this knowledge. Touching on topics such as genetically altered foods and cloning, Schultz is careful to acknowledge controversial subjects while maintaining an unbiased view. His writing is informative, easy to follow, and infused with humor. The detailed black-and-white illustrations are a perfect match, offering images to enhance learning while adding to the humorous aspect of the book. If there is a fault with this volume, it is its physical size, which has resulted in various panels and pages seeming overcrowdeda potential turnoff for some readers. This title would do well as standard reading for science students.Lara McAllister, Halifax Public Libraries, Nova Scotia
From BooklistIts looking grim for life on the aquatic planet of the Squinch. A heritable disorder threatens the ruling family, indeed the whole asexual species that occupies the highest rung of the planets evolutionary ladder. Fortunately, the scientist Bloort is back from Earth, full of enthusiasm for the key to what will save the Squinch: sex. More fortunately, the sagacious and educable emperor wishes to know the full story of this sex. Bloort obliges, beginning with the emergence of life on Earth and an initial pitch for sex and proceeding to reveal how genetics works on the molecular and the cellular levels, how it facilitates inheritance, and how genetic knowledge has been applied in a panoply of scientific fields. Drawn with panache and great good humor by Zander Cannon and Kevin Cannon, and scripted with exceptional clarity by Schultz, this is pretty much the best educational graphic novel in Hill Wangs new line of them, good enough for interested nonscientists to keep handy for whenever they need a refresher on its subject. It even has a happywell, promisingending. --Ray Olson