

Remember that publisher and reviewer assumptions about the skills a reader needs to understand a particular science graphic novel are subjective. A librarian familiar with their local audience is the best evaluator. Many science graphic novels are truly "all ages", combining easy narrative with challenging science.

Bibliography of Science Graphic Novels and Comics

Jay Hosler is a professor of biology and creator of graphic novels for all ages. Humorous and engaging narratives reflect accurately scientific knowledge.

"Clan Apis," *Lifecycle of the honeybee, 1998 Xeric Award winner*

"Sandwalk Adventures: An Adventure in Evolution Told in Five Chapters," *Darwin explains evolution to follicle mites living in his hair*

Jim Ottaviani is a librarian and writer, who collaborates with different artists. Reviews consider his books "challenging" and appropriate for grades 8 and up.

"Fallout: J. Robert Oppenheimer, Leo Szilard, and the Political Science of the Atomic Bomb"

"Suspended in Language: Niels Bohr's life, discoveries, and the century he shaped"

"Bone Sharps, Cowboys, and Thunder Lizards," *Paleontologists Edward Drinker Cope and Othniel Charles Marsh*

"Dignifying Science: Stories About Women Scientists," *Women artists draw biographies of women scientists*

"Two Fisted Science," *Stories of scientists from Leighton to Feynman, 1997 Xeric Award winner*

"Levitation: Physics and Psychology in the Service of Deception," *Magicians and inventors*

"Wire Mothers: Harry Harlow and the Science of Love," *A Controversial American psychologist*

Larry Gonick's books have been used by colleges and universities around the world for over 20 years, but are also recommended for grades 7 and above.

"Cartoon Guide to Chemistry," *published in 2005 it is the most recent of Gonick's books*

"Cartoon Guide to Statistics," "Cartoon Guide to Physics," "Cartoon Guide to Genetics," "Cartoon Guide to the Environment," "Cartoon Guide to the Computer"

Icon Books publishes the "Introducing..." series of illustrated books on over 50 topics, almost 20 on science topics, using partnerships between scientists and illustrators. The books show a British cultural influence and are often recommended for grade 8 and up.

"Artificial Intelligence," "Chaos," "Darwin," "Einstein," "Evolution," "Fractal Geometry," "Genetics," "Mathematics," "Mind and Brain," "Newton," "Quantum Theory," "Relativity," "Time," "The Universe"

"Quantoons: Metaphysical Illustrations by Thomas Bunk, Physical Explanations by Arthur Eisenkraft and Larry D. Kirkpatrick," *Originally published in Quantum magazine, National Science Teachers Association*

Digital Manga Publishing has brought a small portion of educational manga, Japanese comics, to the American market.

"Project X - Nissin Cup Noodle," *Eisner nominated book on the invention and industrial science behind the instant noodle bowl*

"Edu-manga Albert Einstein," *Astro Boy guest stars. Recommended for grades 3-7*

Rosen Publishing has multiple nonfiction series for grade 5-8+

Graphic Discoveries "Incredible Space Missions," "Fantastic Fossils"

Graphic Natural Disasters "Earthquakes," "Volcanoes," "Hurricanes"

Graphic Library also has multiple nonfiction series for grade 3-4, interest level grades 3-9.

Graphic Science "The Shocking World of Electricity with Max Axiom," *now a dozen adventures with Max Axiom, Super Scientist*

Invention and Discovery "Isaac Newton and the Laws of Motion" *over 20 books on scientists and inventors throughout history*

An Exciting Experiment

Collecting Graphic Novels in the Sciences

John Meier, Science Librarian, meier@psu.edu

Physical and Mathematical Sciences Library

201 Davey Lab, University Park, PA 16802

Science Graphic Novels

Comics, cartoons, manga (Japanese), picture books or graphic novels are all words used to describe the combination of text and illustrations to relate information. Graphic novels specifically use sequential art, an ordered narrative with integrated images and text. With sales reaching \$330 million in 2006, graphic novels are becoming more popular and acceptable to the mainstream. Librarians were early to look to this visual material as an effective tool for literacy. Research indicates that graphic novels address multiple learning styles in one format.

Most graphic novels published are works of fiction, and in the remaining nonfiction and educational comics the proportion focusing on science is relatively small. Only a small number of artists, writers, and publishers produce works in this area. Most of these works are written for a primary and secondary educational level, but they are useful to higher education as well for generalists, non-specialists, and new students.

Nonfiction graphic novels present a special problem in shelving, since they can be shelved separately or with their fiction counterparts. Finding reviews for science graphic novels can be done using library collection development publications, however the coverage of the genre is slim. An effective method for finding more material and reviews is to follow a creator or a series from a publisher.