

LIVING MATH THROUGH HISTORY

Advanced and High School Level Booklist


History Cycle 1, Quarter Unit 2: The Alexandrian Golden Age and Medieval Mathematics

If using book lists without purchasing plans, please consider purchasing books through the Amazon affiliate links on the Living Math site to benefit Living Math, or enter through <http://www.amazon.com/exec/obidos/redirect-home/livingmath-20>


Note: Recommendations for upper middle school through high school are included. Comments are included to help discern which resources to choose from, particularly for borderline individuals.

 **Joy of Mathematics** by Theoni Pappas. Math vignettes to inspire exploration

 **Math Talk Poetry in Two Voices** by Theoni Pappas. Poetry in two voices

 **String, Straightedge & Shadow** by Julia Diggins Classic early math history book written in a story style for middle school level.

 **Euclid's Window** by Leonard Mlodinow - more advanced reading than SS&S,


 **The Pantheon Story of Mathematics for Young People** - P. 29-33. An older style book, well illustrated, middle school level.


 **Marvels of Math**, Kendall Haven


  **The Story of Science** by Joy Hakim, middle school+ level

 **MathFocus Math Smart Junior** - Marcia Lerner - Pre algebra OR

 **MathFocus Algebra** by Gelfand / Shen OR

 **MathFocus Realm of Algebra** by Isaac Asimov, out of print, may be difficult to find, middle school level+

 **Rome Antics and City: A Story of Roman Planning and Construction** by David Macaulay, these books show history in the context of buildings, the drawings are very good illustrations of geometric principles in life. The first one is for younger children.

 Additional David Macaulay books: **Mosque, Cathedral, Castle**

Living Math Through History

Advanced and High School Level Cycle 1, Unit 2 Booklist

The Alexandrian Golden Age and Medieval Mathematics



The Man Who Counted, Malba Tahan



The Joy of Pi by David Blatner



Seven Daughters and Seven Sons by Barbara Cohen, historical fiction set in medieval Arabia, optional reading for historical context



Fascinating Fibonacci, Mystery and Magic in Numbers, by Trudi Hammel Garland, excellent book on Fibonacci numbers in art and nature. **Fibonacci Fun** by the same author is a book of activities based on Fibonacci numbers if you would like to try more activities on Fibonacci numbers than are included in the lessons.



Magical Mystery Tour by Mark Dahl. Excellent activity book for Fibonacci numbers and the Golden Mean.



DaVinci: There are many to choose from. When we study an individual like this, we usually select several sources as some will emphasize his art, some his science, some his life and times.

Great Minds of Science: **Leonardo da Vinci, Genius of Art and Science**, by Jennifer Reed

The Second Mrs. Giaconda by L.E. Konigsburg



Math and Art Concept Readers - Any that you have access to, these apply to a wide age range in appeal and applicability

Zoom and Re-Zoom, by Istvan Banyai

Art Fraud Detective: **Spot the Difference, Solve the Crime!** by Anna Nilsen and the companion on Modern Art, **The Great Art Scandal**.


Seen Art? By Jon Scieszka - just for fun if you like this author


Upper Level: **Mathematics in Art** by Michael Holt

Living Math Through History

Advanced and High School Level Cycle 1, Unit 2 Booklist
The Alexandrian Golden Age and Medieval Mathematics

High School Mathematics and History Reading

 **HS+ From Five Fingers to Infinity, A Journey Through the History of Mathematics**, Frank Swetz - A series of essays through the history of mathematics emphasizing the human element of math. Text is more readable than most math histories I've run across, with numerous clear diagrams / pictures.

 **HS+ Mathematics: From the Birth of Numbers** by Jan Guillberg. See introductory material on how to use this text.

 **Euclid's Window** by Leonard Mlodinow

 **The Joy of Pi** by David Blatner

 **The Day The Universe Changed** by James Burke

 **HS+ The Measure of Reality, Quantification and Western Society, 1250-1600**, by Alfred W. Crosby

 **HS+ Classical Reading: Boethius, Consolation of Philosophy**


<http://www.historyguide.org/ancient/boethius.html>


Not mathematical content at this site, but a "taste of Boethius".

 **HS Men of Mathematics** by E.T. Bell

 **HS+ The Manual of Greek Mathematics**, Sir Thomas L. Heath

 **Roman City** (PBS Home Video) Based on the David Macaulay book, **City**.

 **History of Science: Antiquity to 1700** (Teaching Company Series www.teach12.com) Parent resource (college level)

 **Joy of Thinking Video Series** - (Teaching Company Series www.teach12.com) accessible to middle school level on up, or parent resource