

LIVING MATH THROUGH HISTORY

Cycle 1 Tentative Intermediate Level Booklist

History Quarter Unit 3: Renaissance to Age of Enlightenment

These selections are not final.


Plan updates are in progress and some substitutions or additions could occur.


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: These are the books recommended for approximately 4th through 7th grade levels. For children who border the lower end of this age group, supplementing or substituting some of the higher level Primary level math readers may be appropriate. Refer to the Primary level booklists and plans for easier reading level suggestions.

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

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

 **Mathematicians Are People, Too Vol. 1** by Luetta Reimer and/or **String, Straightedge & Shadow** by Julia Diggins, story-like math history, the latter is a little more advanced.


 **Math History readers:** One or more, according to your child's ability:

The Wonderful World of Mathematics by Lancelot Hogben. This is a classic you'll see listed on many math reading lists, older style of writing.


Mathematics: The World of Science by Irene Fekete: P. 24 - 27 - excellent.

The Pantheon Story of Mathematics for Young People - P. 29-33. Upper level used for Advanced, but a 5th+ could enjoy, or read aloud.

 **Marvels of Math**, Kendall Haven.

 **Volume 2 of the Mathematicians Are People Too** by Luetta Reimer. Volume 2 is scheduled for Cycle 2, but two stories in this book fit the lessons here very well.


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

 Optional Historical Context - **Story of the World Vol 2** by Susan Wise Bauer and/or **Ten Kings** by Milton Meltzer


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Renaissance to Age of Enlightenment


 **Great Moments in Science** by Kendall Haven - Reader's Theatre, well done, recommended if you have the ability to act out as a family or in groups.

 Optional Historical Context - **Story of the World Vol 2** by Susan Wise Bauer

 **Nicolaus Copernicus: The Earth Is a Planet** by Dennis B. Fradin, for younger readers in this group

Giants of Science, "Nicolaus Copernicus, Father of Modern Astronomy" by Scott Ingram - deeper biographical source

 *History context:* For a look at Copernicus's Poland in the 1400's, the Newberry Award Winner, **The Trumpeter of Krakow**, is an enjoyable historical fiction reader

 **Along Came Galileo**, Jeanne Bendick (Bendick is the author of Archimedes and the Door of Science) OR

"**Giants of Science**" are written for the 9 to 12 y/old age range. "**Galileo Galilei, Inventor, Astronomer & Rebel**" by Michael White OR

Galileo Galilei: First Physicist James MacLauchlan (Oxford Portraits in Science)

 **The Kid Who Named Pluto** and Stories of Other Extraordinary Young People in Science by Marc McCutcheon

 **Biography of Kepler**, Recommended sources:

Johannes Kepler: Giant of Faith and Science by John Tiner

More challenging: **Johannes Kepler and the New Astronomy**, James Voelkel (Oxford Portraits in Science)

 Biographical Essay: **Blaise Pascal**, Living Math History by Julie Brennan - written for 5th to 10th grade levels

Easy Biography (story-like): **A Piece of the Mountain, the Story of Blaise Pascal**, Joyce McPherson - (religious content)

 *Teaching resources:* **Pascal's Triangle: A Teacher's Guide** by Tony Colledge; Seymour, Dale: **Visual Patterns in Pascal's Triangle**.

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Biographies on Newton - any or all, mix and match:

Isaac Newton: Discovering Laws That Govern the Universe (Giants of Science) by Michael White

Isaac Newton (Pioneers of Science Series) by Douglas McTavish

An Ocean of Truth, Greenleaf press by Joyce McPherson (religious content)

Dead Famous, Sir Isaac Newton by Kjartan Poskitt (author of Murderous Maths, irreverent in tone)

Also recommended, higher level:

Isaac Newton and the Scientific Revolution (Oxford Portraits in Science)

Newton (Discoveries Series) Maury, Jean-Pierre



MathFocus **Calculus By and For Young People** by Don Cohen - Parent resource for activities



MathFocus **Prof. E. McSquared's Exanded Intergalactic Version! Calculus Primer** by Swann & Johnson - Pretty advanced, but some kids in this group may enjoy the comics



MathFocus **Ten Things All Future Mathematicians and Scientists Must Know** by Edward Zaccarro



Five Equations That Changed the World by Michael Guillen - This book was recommended for the advanced level, however, more mature readers in this group may enjoy it. It contains far more detail than what I have written in the lesson synopsis, and it contains both the background leading up to Daniel Bernoulli's work, and the subsequent use of it in aeronautics. It does not contain adult themes.



Also recommended (tie in with Bernoulli's work) **William Harvey And the Mechanics of the Heart** (Oxford Portraits in Science) by Jole Shackelford

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Renaissance to Age of Enlightenment

☐ **Video** PBS special based on Galileo's Daughter, **Galileo's Battle for the Heavens**.

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

☐ **My Favorite Universe Series** - (Teaching Company Series www.teach12.com) accessible to middle school level on up as instructor is engaging, or parent resource