

Mathematics in Unit Studies: Not just a workbook anymore

It is quite tempting to have an integrated curriculum throughout history, geography, reading, literature, art and music—and then tack on a few pages of math problems. Do you wonder why your kids dislike math? After teaching lists of facts, it's easy to imagine why our students panic at the sight of word problems.

The key to integrating math into your studies is *planning*. On a sheet of paper, outline your year then brainstorm the mathematics that naturally flows from the topics you plan on covering. Mathematics is the language of science, but in reality there are connections to almost every field of study. Not only is this a great opportunity to make connections, but also a chance to show your child how much mathematics *doesn't* stress *you* out. Next, compare your list of connected topics with your mathematics scope and sequence for the year. You probably won't have everything lined up perfectly, but the more you integrate the more knowledge your child can apply and the bigger break you get from the workbook grind. Here are some ideas to get you started:

<u>History</u>	mathematicians
<u>Geography</u>	maps, latitude and longitude, altitude, measurement of distances
<u>Science</u>	measurement, logical reasoning, fractions, angles, algebraic formulas, factoring, et al...
<u>Foreign Languages</u>	different computational methods, technical terms (essential for working fluency)
<u>Music</u>	fractions, series, sequences, patterns
<u>Art and Theatre</u>	motion geometry, symmetry, tessellations, fractals, set design and architecture, timing
<u>Bible</u>	counting, measuring, ratios, mathematical history (ie Galileo's "heretical" contentions)
<u>Literature</u>	time, navigation by the stars, geometry, this varies with content
<u>Phys Ed and Health</u>	counting, statistics, percentages, knot theory, geometry of sports fields, energy computations

For more ideas and unit study resources, check out the following:

- Linda's Homeschool Page has a nice article on how to *not* use your math book (<http://www.bright.net/~double/math.htm>)
- Education World's "Integrating Math Across the Curriculum" article (www.education-world.com/a_curr/curr146.shtml)

Next month: "College or Career: What Your Highschooler Should Know." Please e-mail us (Peter and Bethany Barnosky) with questions, comments, or topics for future columns: brb@webthunder.com. Thanks to Education World. [February 2002]