

# A Parent's Guide to the *Making Math Meaningful*<sup>™</sup> Program

## by Jamie York ([www.JamieYorkPress.com](http://www.JamieYorkPress.com))

### What is *Making Math Meaningful*<sup>™</sup>?

It is a developmentally-based math curriculum that strengthens basic skills, fosters mathematical thinking, and sparks enthusiasm for learning. Through workbooks, source books, and workshops for teachers, Jamie York's mission is to inspire educators to bring real math into the classroom.

### Major Goals

Yes, math skills are important, but there is much more to learning math than working on skills. Our goals are for our students: (1) to be enthusiastic about learning math; (2) to learn how to think mathematically; and (3) to develop solid math skills.

### The Three-Year Plan

With important skills topics, we plan it so that it will take three years for students to master the material. Example: fractions are introduced in 4<sup>th</sup> grade, practiced in 5<sup>th</sup> grade, and mastered in 6<sup>th</sup> grade.

### Developmental Stages for Learning Math

What works for 6<sup>th</sup> graders, doesn't really work for 3<sup>rd</sup> graders, nor does it work for 11<sup>th</sup> graders. That's why we don't use workbooks in grades 1-5. This is a time for students to develop a sense of number, to play with numbers, and develop a love of math. In grades 5-6, the students consolidate the skills they were introduced to earlier (like fractions and long multiplication). In grades 7-9, the "real math" begins as they learn to think more abstractly, setting the stage for algebra. In grades 10-12, their thinking explodes as they learn to think more logically and critically, and engage deeply in problem solving.

### Why Wait?

Education is not a race. The goal is not simply to learn as much stuff as quickly as possible. Learning a topic before the child is developmentally ready, often leads to superficial understanding, and gives a general sense that math is a tedious, meaningless chore. While we do introduce most topics at normal ages, there are several topics where we consciously choose to wait. We find that the students are then more engaged, learn the material more readily, and are able to take the topic to a deeper, more advanced level.

### The Role of the Teacher

We don't produce textbooks. Why not? Many textbooks essentially spoon-feed the teachers so that they can then spoon-feed the students. We do provide workbooks for students and resources for teaching math. Ultimately, the teacher is the author of what happens during the lesson. Only the teacher

can create the proper learning space for excitement and discovery in the math classroom.

### What about Homework?

If our greatest goal is to engender enthusiasm for learning, we have to ask if homework helps to achieve this. Certainly, homework should not become a drudgery! While I do believe that (starting in middle school) a modest amount of homework can be helpful (especially for reading and writing assignments), it is clear to me that the best place to practice math skills is at school, where students can collaborate together in the learning process, and the teacher is available to assist the students.

### Be Aware of Fear

Many parents today are fearful that their child is falling behind in math. Sometimes this fear is rooted in the parent's own troubled math past. Often the parent's fear transforms into the child's anxiety – anxiety which inhibits learning and can result in the child hating math. Remember that the primary goal is to develop enthusiasm for learning.

### Standardized Testing

Our math curriculum is designed to "come together" in 11<sup>th</sup> grade so that the students are prepared to take the SAT or ACT at the end of 11<sup>th</sup> grade, which can be a great learning experience at that age. Preparing for these tests before 11<sup>th</sup> grade is not necessary, and can be detrimental. Likewise, I am not in favor of the students taking the PSAT or PLAN tests in 10<sup>th</sup> grade or at the start of 11<sup>th</sup> grade. For government exams in earlier grades, or (in the case of a 1-8 school) for math placement exams for high school, the teacher may need to supplement some extra material – but don't sacrifice too much!

### Key Math Topics (mostly when they are introduced)

- Grade 1: Counting (in many ways!); 4 processes
- Grade 2: Place Value; Times Tables (2-12)
- Grade 3: Vertical (+, -, x); Master Facts (9+5, 8x7, etc.)
- Grade 4: Fractions; Long Division; Review Facts
- Grade 5: Decimals; Wonder of Number; Skills Practice
- Grade 6: Skills Mastery; Percents; Business Math
- Grade 7: Algebra (intro); Ratios; Pythagorean Th.
- Grade 8: Number Bases; Volumes; Unit Conversions
- Grade 9: Algebra (fully); Possibility/Prob; Logarithms
- Grade 10: Proofs; Ancient Greek Geom; Trigonometry
- Grade 11: Cartesian Geometry; Complex Numbers
- Grade 12: Calculus; Philosophy of Math