

May 2014

COMMON CORE REQUIREMENTS - and - SAXON MATH

As I write this article, there are already four states that have voted to drop the Federal Common Core Requirements with several more states – including Oklahoma – in the process of passing legislation to do the same. Actually, if you use John Saxon’s math books correctly, you do not have to worry about whether or not your state has adopted the Federal Common Core Requirements. Because of the depth of John’s textbooks, your child will be parallel to or ahead of those standards.

I recall when Oklahoma passed their state mandated math tests called the PASS test more than two decades ago. The test was designed to ensure that all students who completed an algebra one course in high school could pass the state mandated PASS test which was nothing more than a test of one’s knowledge of algebra one concepts. The test was given in mid-March of that year and it was advertised as an “*End of Course*” test – yet we were only two thirds of the way through the algebra one course - anticipating finishing the textbook by the end of school in late May.

I argued with the high school principal that this was not an honest or fair test as we had not completed the book and therefore the students were not prepared for an “*End of Course*” test. In no uncertain words, he informed me that I would administer the test and that I was to make sure they passed it. He made it clear that, during the three weeks leading up to the test day, I was to teach those concepts that had not yet been reached. As I thought about it that evening, I decided to take a more honest approach.

When the test results came back that fall, our high school had one of the four highest PASS results in the entire state (I cannot remember if we were second, third or fourth). If that principal is reading this news article, it will come as a surprise to him to learn that I had my Saxon Algebra 2 students take the state mandated “*End of Course Algebra 1 test*,” since, unlike the algebra one students who had not yet finished the book, these students had - and they were therefore legally eligible to take the “*End of Course*” test mandated by the state.

So, how does all this affect you and your homeschool student meeting the mandated Common Core requirements for mathematics? I realize that the founders of these requirements tout the fact that they are mandating teaching students how to solve problems rather than just learning rote memory of math facts, but as John often said, “***Understanding should follow doing rather than precede it. If you are going to teach someone how to drive an automobile, don’t lecture them on the theory of the internal-combustion engine. Get them to drive the car around the block.***”

The professional tree company that sent a man out to my house to estimate how much it would cost to spray my Elm tree against a specific disease had to send someone who knew something about the formula needed to calculate the surface area of the 40 – 50 foot high tree trunk - and thereby estimate the amount of liquid to use to spray the tree trunk – and also calculate how much to charge me?

Because you cannot change or hope to change those foolish enough to demand compliance with these or similar “fuzzy” math standards, you can either opt out of taking the test, or you can make sure that your son or daughter is prepared to meet the challenge created by them. You can ensure that your sons and daughters are adequately prepared for these tests.

I will make you a promise. If you will follow the schedule I have outlined below, and in doing so ensure that the student truly masters each course as I have often described what “mastery” is defined as – that student will pass any fair and honest Core Curriculum Requirement in mathematics at any level. The key is to use the correct editions of John Saxon’s math books, and to not take any short cuts or allow deviations from what is required – such as weekly testing. And to make sure the student enters the Saxon Math curriculum no later than the sixth or seventh grade.

Here is the schedule:

6th Grade - Saxon Math 76, 4th Ed (You can also use the 3rd Ed textbook, but there is no Solutions Manual for that edition). The 3rd Ed is a hard cover textbook.

7th Grade - Math 87, 2nd or 3rd Ed or Algebra $\frac{1}{2}$ 3rd Ed. Entry into one or the other is dependent upon how well student does on the last five tests in Math 76. The 2nd and 3rd Ed of Math 87 is identical except that the 2nd Ed is a hard cover textbook.

8th Grade - Algebra 1, 3rd Ed (I recommend not using the 4th Ed as the new owners have removed all references to geometry from that edition).

9th Grade - Algebra 2, 2nd or 3rd Ed (I recommend not using the 4th Ed as they have removed all references to geometry from that edition also) The 2nd and 3rd editions are identical except that the older 2nd Ed does not have the concept lesson reference numbers like the 3rd Ed does.

10th Grade - Advanced Mathematics, 2nd Ed (Part 1). Course is titled “*Geometry with Advanced Algebra.*” The concept reference numbers are found in the Solutions Manual.

11th Grade - Advanced Mathematics, 2nd Ed (Part 2). Course is titled “*Trigonometry and Pre-Calculus.*” The concept reference numbers are found in the Solutions Manual.

12th Grade – Take a college algebra or Calculus course at a local university or college under “Concurrent” or “Dual Enrollment.” Or you can finish John Saxon’s Calculus, 2nd Ed textbook.

NOTE: To better explain how a full year’s geometry credit is awarded and how to correctly pace the student using the very rigorous Advanced Mathematics textbook, please take a moment and review this short seven minute video describing how the courses are structured for a geometry course: www.usingsaxon.com/flvplayer.html.

Problem solving only takes place when the problem solver knows the “how” in solving them. In teaching students how to program a computer I would explain to them that the thought process was identical to what they had encountered in the two-column proofs they had encountered in their Saxon Algebra 2 and the Saxon Advanced Mathematics books. The principal to finding a solution in either course is identical.

“You cannot walk through a door until you have opened it. And you cannot open it, until you have walked towards it. And you cannot walk towards it, until you have identified it as the door you need to walk through.”

Every child is different and some students may be able to be successful in these courses a year or two earlier than the schedule reflects, while some may fall a year behind this schedule. However, if a student encounters difficulty along the way and never gets to calculus his senior year of high school, that is okay. **Students fail college calculus because they are weak in algebra – not because they do not understand the calculus.** Some students may need both Math 87 and Algebra $\frac{1}{2}$ before they are successful in the Saxon Algebra 1 course and that is okay as they are building a solid base before entering the upper level math courses. Any student who masters the entirety of John Saxon’s Algebra 1, 3rd Ed will be successful in the Algebra 2, 2nd or 3rd Ed course as well.

Please feel free to call me if you have any questions - or - email me your number and I will call you as my office has unlimited long distance calling anywhere in the US or its territories. My office telephone number is: **580-234-0064 (CDT)**

A SIDE NOTE: I recently saw a copy of a sample Common Core test question online. It was for fourth grade students. They were told to add several numbers and record their answer. The next question then asked them “What procedure did you use to find the answer to the previous question?” To which one bright young student had boldly written “Math” as his answer.