Introduction You may watch a video of this Introduction at: www.HomeschoolerToday.com/Intro

"How and Why Homeschool Mathematics <u>can be vastly</u> Superior to Public School Math"

You are a Homeschool parent with post-elementary children, ages 12 - 18.

"Superior"? "<u>can be vastly</u> Superior"? Wow! Do you believe this?

Well, thanks to modern technologies and modern resources these statements are true, and I will explain how and why this is so very briefly in this Introduction and the Chapters to follow will explain it all to you and refer you to many Free Resources which will give you in depth explanations on every aspect of the situation.

Of course, this is very good news for Homeschool students who want the best possible math educaton that fulfills their needs and desires.

Let's begin with a question, "What are the three vital ingredients of an optimal truly great 21st Century Mathematics Program?"

My answer is: **Psychology - Pedagogy - Content**

If you get ALL three right you will deliver great Math Education, BUT If you get any one of them wrong, you will not deliver a great Math Education.

Let me discuss all three of these ingredients briefly, and then much more detail in the Chapters that follow.

Psychology Who's? The student's, of course. A student must not Fear or Dislike Math. Indeed, a student must Enjoy Math and have confidence in his or her ability to learn math. High Self-esteem.

OK, How should a Teacher/Coach create a good psychology in the student? Answer: The other two essential ingredients: Pedagogy and Content.

Pedagogy is the way you teach Math to a student. Any experienced math teacher or tutor will tell you there are five ingredients of good pedagogy to teach math expressed by the acronym SPIKE. Here the five are in a nutshell.

Self-pacing Each student learns at a his or her unique pace

Proper Content. Huge critical subject you must understand.

Interactivity. Math is learned with practice with feedback

Keeping Score. Critical for motivation and good psychology

<u>E</u>mpathy Mistakes must be celebrated as evidence of progress.

OK, you now have a very quick overview of the SPIKE Pedagogy which is necessary for a good Math Education. Much more detail in Chapter 1.

Now, the facts are that it is very difficult or impossible to deliver the SPIKE Pedagogy for each student in a group setting with many students which is how math is still being taught in our public schools. Thus, Homeschool Math can be Superior to Public School Math.

But -- VASTLY Superior. How can Homeschool Math be VASTLY Superior?

<u>Content</u> Proper Math Content is dramatically better than the current Standard Math Curriculum taught in our schools.

This is a deep subject and and the following Chapters will explain this in great detail in writing or with a video for each Chapter.

Briefly, Math consists of two ingredients, Concepts and Tools. Math Concepts are actually very easy for most students to learn when taught with SPIKE Pedagogy.

The Tools are where the 21st Century educational opportunities lie.

First, we teach a student to use a Scientific Calculator for all arithmetic calcuations. The old manual algoritms are difficult to master and very slow and error prone to use. It is a major misconception that a student must master the old manual algorithms to understand the concepts.

An extremely important modern Tool which should be used with high school math starting with Algebra and going through Calculus was introduced to the world in 2009. It is named Wolfram Apha, WA. WA revolutionizes how one solves Algebra, Trigonometry, Analytical Geometry, Calculus, and Differential Equations problems. Ever hear of it? It is NOT in any of our math textbooks.

This new Math Curriculum is why a Homeschool Teacher can deliver a VASTLY Superior Math Education compared to a public school which is still teaching obsolete manual tools developed by our ancestors in the 1700's.

Mind you, this is NOT a criticism of our high school math teachers. They, too, are victims of our antiquated obsolete Standard Math Curriculum and delivery system, both of which were created before our modern technologies.

You may obtain all of the detailed information on how this all works in the following Chapaters and at: <u>www.HomeSchoolerToday.com</u>

Or, if you are in a hurry you can try it out and prove it for yourself or with a student. Actually, this is the only way you will ever be able to judge it.

Just go to <u>www.HomeSchoolerToday.com</u> and buy one of our Online Math Programs that you think might work for you.

All of our Online Training Programs come with a RISK FREE Guarantee.

Try it out. Learn from it. And, if after a Trial Period you don't like it just cancel the program and receive a full refund of any monies you have paid.

Have Fun reading the book. Visit our Websites. Attend one of our Webinars and ask any question you might have.

Best wishes for your success with Math.