

## Professional Development Ideas Tom Reardon February, 2005

SMART Boards	Power Point
TI-Graphing Calculators	Math Type (Equation Editor)
• TI-83+/84+	Individualizing Assessments with Excel
• TI-89/92+/Voyage 200	Vidshell
• TI-73	CAS (Computer Algebra Systems)
TI-Emulators (TI-SmartView)	SMG (Symbolic Math Guide)
TI-Study Cards	Cabri Geometry II
TI-Interactive	Cabri Jr
TI-Navigator system (1.1 and 2.0)	CBL and CBR activities
TI-APPS	The OGT (Ohio Graduation Test)

Receive one-day, two-day, up to ten days of Professional Development using the ideas listed above, tailor made to the needs of your teachers and students.

Each participant can receive a CD with over 40 tried and true classroom activities with Teachers Notes and Solutions. Also included are hundreds of other teacher ideas.

For more information about the above topics, please read below or contact me at:  
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### **SMART Boards**

Find out how to use all the features of SMART Boards that can be applied to all disciplines. Also see how to incorporate those features into the middle and high school curriculum. Find out how to incorporate graphing calculator emulators and screen shots into your class notes. Discover how to easily capture and place your daily class notes onto your website in pdf format. Be amazed how you can easily pre-record your lessons as an electronic video for when you are not in class.

### **TI-Graphing Calculators**

Get instruction on how to use the features on the various graphing calculators. But more importantly, learn how to seamlessly integrate the use of graphing technology into your daily lesson plans. Allow your students to experience the "Power of Visualization" provided by graphing calculators. Get and retain their interest by showing how to mathematically model data. Obtain dozens of mathematical activities that can be used immediately in your room.

### **TI-Emulators (TI-SmartView)**

Learn how to use TI's latest graphing calculator emulator for the 84+, TI-SmartView, from one of the teachers who helped to develop the software. Also find out how to use emulators for the TI-73, TI-83+, TI-89, TI-92+, and the Voyage 200. Be able to use the APPS right on your computer screen or right on your SMART Board. Very powerful for teachers ... and their students.

### **Power Point**

Create presentations that can be used as: Electronic Flash Cards, Tutorials, and as Attention Grabbers with Animation. Dazzle your students with the creativity allowed in Power Point. You will be amazed and delighted ... and so will your students.

## **Math Type (Equation Editor)**

In two to three hours, you can learn how to use and incorporate many of the features of Math Type. Use these features to your advantage to create the best assessments and worksheets (gifts). Learn many of the cool features and how to cleverly use them.

## **Individualizing Assessments with Excel**

Find out how you can easily create individual problems for each of your 50 to 100 students, each having different data. But more importantly, find out how to easily create the solutions for each of the 100 different problems that include all intermediate values so that you can effortlessly assess the student's progress. Several problems are already included: The Great Applied Problem (the best problem I have encountered), The Baseball Problem, The Jet Ski Problem, Solve the Quadrilateral Problem, to name a few.

## **TI-Study Cards**

"My favorite APP!" Be instructed how to very easily create electronic flash cards (study cards) for all TI graphing calculators. Then find out how to easily load those study card stacks onto the calculators. Also included are over 16 stacks for the 73, 28 stacks for the 83/84+, 25 stacks for the 89/92+/ Voyage 200.

## **Vidshell**

Watch a video of someone shooting a basketball. Using this software, you are able to find the coordinates of the ball in flight and use that data to mathematically model the flight of the ball. The student can then mathematically predict if the shot is going in the basket or not. Vidshell is free software that makes learning mathematics more practical and we will investigate its features and use them to make our classes more fascinating.

## **Cabri Geometry II**

Find out how to use this software package to make learning geometry more dynamic, more exciting, and more intuitive. Very similar to Geometer's Sketchpad. Also learn how to import a digital photograph into Cabri and how to mathematically model the curve in the photo. For example, we will import a picture of a roller coaster in Disneyland, find a regression equation that models the path of the roller coaster, then plot the curve right on the actual photo so that the students can see immediately how good of a "fit" the equation was! Amazing.

## **Cabri Jr**

Dynamic geometry on the 83+ or 84+! Encourage students to experiment with geometric figures, look for patterns, generalize their findings, and then prove or disprove their conjectures. An exciting way to learn geometry!

## **CBL and CBR activities**

Get hands on data and then model that data mathematically using a motion detector, temperature sensor, voltage meter, or light sensor. Investigate the harmonic motion of a pendulum or look at the exponential decay model of light intensity versus distance. Many other activities available. Real world data and applied mathematics – what a combination!

## **CAS (Computer Algebra Systems)**

The next frontier in graphing calculator technology! See how to incorporate the CAS from the TI89/92+/Voyage 200 into teaching Algebra 1, Algebra 2, Precalculus, and Calculus. Many tried and true activities and lessons will be shared ... and developed.

### **SMG (Symbolic Math Guide)**

Some teachers claim that CAS makes it too easy for the students. The Symbolic Math Guide (SMG) is a free software APP for the TI-89/92+/Voyage 200 that assists students to more fully learn and understand algebra concepts and procedures ... up through calculus! Learn how to incorporate this intuitive, interactive APP from one of the teachers who helped to develop it.

### **TI-Interactive**

This software package is a great teacher tool and an excellent student report maker. Find out how to make this software work for you ... and your students.

### **TI-Navigator system (1.1 and 2.0)**

Experience the future of assessment and teaching mathematics now! Learn how to use the Navigator system to connect your computer to each of your student's graphing calculators, and then communicate with them at the same time. Send programs, APPS, assessments, and data to each student in your class in just seconds. The Navigator can also send information from each student's calculator back to your computer. It can grade the assessments and provide the teacher with an item analysis for each student and each class. The teacher is also able to instantly poll the class, and see what is on each student's calculator.

### **TI-APPS**

There are dozens of APPS that can be used on the TI graphing calculators – and most of them are FREE. Learn how to use some of them to your advantage in your classroom ... or learn how to use ALL of them! APPS include Area Formulas, Inequalities, Conic Sections, Probability Simulation, or What is My Angle?

### **The OGT (Ohio Graduation Test)**

Learn what is on the new OGT from one of the educators selected to rewrite the old 9<sup>th</sup> grade proficiency test into the new 10<sup>th</sup> grade test. Get excellent teaching ideas from the author of Barron's book: ***How to Prepare for the OGT in Mathematics***. Obtain cool activities from one of the few teachers who is certified to be an OMAP trainer in each of the three math modules. And see how to incorporate Power Point into a tutorial for the OGT.