The V²CTM Reflection

Spring Meeting on April 20 at TAHS

The Annual Spring V²CTM Meeting will be held at Turner Ashby High School on Thursday, April 20, 2006. Attendees will be treated to their choice of four afternoon sessions—each dealing with fractions, a delicious dinner prepared by the TAHS cafeteria staff, and a general session *What's the Difference between a Mathematician and a Magician?*, presented by two veteran math supervisors, Harvey Almarode of Augusta County and Joe Hill of Rockingham County To get to Turner Ashby High School from I-81 take Exit 240 (Bridgewater). Proceed on Rt. 257 3.4 miles west to the Town of Bridgewater. At the stop light of Rt. 257 and Main Street (beside Hardee's) take a right turn and proceed north on Main Street (Rt. 42) 1.3 miles. Turner Ashby High School is on the right at the stop light. Registration is available on-line at http://www.rockingham.k12.va.us/register. A registration form is also available on the last page of this newsletter.   Dinner registrations need to be in before April 13.   Please register whether you are eating dinner with us or not.   Annual membership of $5.00 annual membership fees will be collected at the door; those who want to eat dinner will also pay their $5.00 dinner fees at the same time. Door prizes will be given at dinner! First-time attenders and students have membership and dinner fees waived! The program is as follows:

Turner Ashby High School

4:30 – 5:00   **Registration.** Thanks to Spotswood High School for providing refreshments**!**

5:00 - 6:00   **K - 2 Session:** *Using a SmartBoard to Teach Math in Grades K-2*, Lillian Dix, John C. Myers Elementary School

                3 - 5 Session: *Fun with Fractions!* Amy Henderson, Spotswood Elementary School

                5 – 8 Session: *Friendly Fractions,* Judy Phillippi, James Madison University

                9 – 12 Session: *Rational Functions*, Pat Lintner, Harrisonburg City Schools

6:00 – 6:45   **Dinner:** Provided by the Turner Ashby High School Cafeteria Staff

6:45 - 7:00   **Business Meeting.**   Judy Kidd, President

7:00 - 8:00   **General Sssion:** *What's the Difference between a Mathematician and a Magician?* Harvey Almarode, Augusta County Schools and Joe Hill, Rockingham County Public Schools

Spring Sessions Lined up for V²CTM
Afternoon Sessions Feature a Fraction Theme

Lillian Dix, John C. Myers Elementary School, will provide a session for K-2 teachers about using the SmartBoard to teach mathematics. She will give a brief explanation of the value of SmartBoard technology in an early childhood classroom. She will then share components of a fraction lesson from introduction through review – all used on SmartBoard with manipulatives and support materials including her extensive collection of books. And, she will share some great interactive sites and online resources to be used with the SmartBoard.

Amy Henderson, Math Coach at Spotswood Elementary School, will present a program called "Fun with Fractions!" Come to discover thought-provoking and fun ways to get your students excited about fractions.

Judy Phillippi, Mathematics Department at James Madison University, will present a session for 5th-8th grade teachers called *Friendly Fractions*. The session may also be appropriate for lower grades. Participants will learn methods for ordering fractions mentally using number sense strategies. A number of labor-intensive techniques exist for making comparisons of fractions, such as converting the fractions to decimal form and using a technique often referred to as "cross-multiplication". Judy will share how mental math strategies for comparing fractions are not only more efficient, but, more importantly, instill in students a deeper understanding of and ease with fractions.

Pat Lintner, Harrisonburg City Schools' Instructional Coordinator for Mathematics, will keep the fraction theme going at the high school level by presenting a program about Rational Functions. Rational Fractions has been added to the SAT and while they are not among the Algebra II SOL's, they can fit nicely with all of the other function families in that course. Participants will take a look at building some of the concepts related to rational functions using technology.

"Old-timers" Harvey Almarode and Joe Hill will present a general session which highlights a collection of the tricks they have collected in almost 70 total years of mathematics education. Harvey, who is retiring at the end of this school year, has been Augusta County's Curriculum Supervisor for K-12 Mathematics and Instructional Technology since 1989. Prior to that he was a high school mathematics teacher at Stuarts Draft for 16 years. Joe is Rockingham County's Director of Math and Technology, a position he has held since 1989. Prior to that, he taught math for 17 years at Morgantown (WV), Turner Ashby, and Fort Defiance High Schools.

Former V²CTM President Co-Authors Series of Mathematics Education Books

Dr. LouAnn Lovin, past president of V²CTM, has co-authored a series of three mathematics education texts along with John Van de Walle: Teaching Student-Centered Mathematics: Volume One, Grades K-3, (ISBN 0-205-40843-5), Teaching Student-Centered Mathematics: Volume Two, Grades 3-5, (ISBN 0-205-40844-3) and Teaching Student-Centered Mathematics: Volume Three, Grades 5-8 (ISBN 0-205-41797-3). All feature a student-centered, problem-based approach which will help students develop real understanding and confidence in mathematics. Problem-based activities in every chapter provide numerous engaging tasks to help students develop understanding. Assessment Notes illustrate how assessment can be an integral part of instruction and suggest practical assessment strategies. Expanded Lessons elaborate on one activity from each chapter, providing examples for creating step-by-step lesson plans for classroom implementation. A Companion Website (www.ablongman.com/vandewalleseries) provides access to reproducible blackline masters to utilize in the classroom. The NCTM Content Standards are provided for teachers reference in the appendix. John Van de Walle is Professor Emeritus at Virginia Commonwealth University. He is a co-author of Scott Foresman-Addison Wesley Mathematics, a K-to-6 textbook series and the author of Elementary and Middle School Mathematics: Teaching Developmentally, the best-selling text and resource book on which this series is based. LouAnn Lovin is a former classroom teacher and is currently an assistant professor in mathematics education at James Madison University, where she teaches mathematics methods and mathematics content courses for Pre-K-8 prospective teachers and is involved in the mathematical professional development of teachers in grades 4-8. You can learn more about the series at www.abprofessionaled.com.
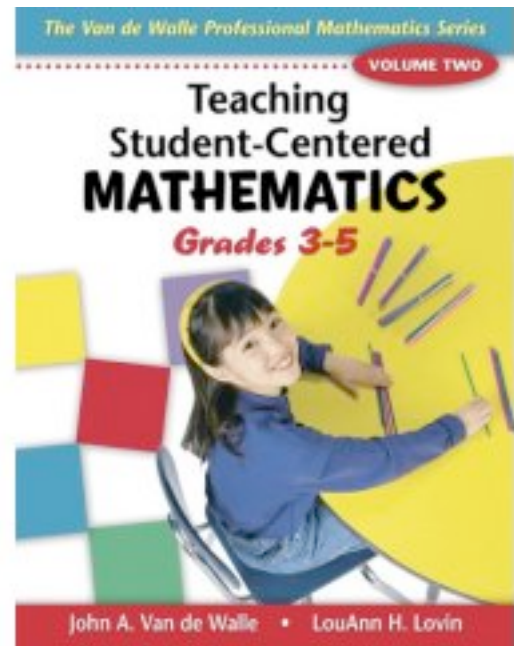
April is Mathematics Education Month

Notes on Spring 2006 Math SOL Tests, Grades 3-8

The following information was taken from a presentation given by Deborah Bliss, Mathematics Coordinator, Office of Middle and High School Instruction, Virginia Department of Education, at the Spring Math Supervisor's Meeting in Blacksburg:

Grade 3
• There are no changes in the format nor content of the Grade 3 Math test. It remains a K-3 test.

Grade 4 – NEW SOL TEST THIS YEAR
• Allowable ancillary materials: rulers (should be whatever students are comfortable with using such as rulers marked to the nearest 1/8" inch), scratch paper, 4-function calculators (on part B of the test). The scratch paper could be blank grid paper but the x-y axes cannot be pre-drawn or labeled on it.
• There are no questions which ask for the remainder in a division problem (see SOL 4.8)
• Note that the measurement conversions involve ballpark estimates only (see SOL 4.10, 4.11, 4.12)
• Pay careful attention to the Geometry vocabulary
• Coordinate graphing (SOL 4.18) IS a SOL for grade 4.
• Part 1 will cover Computation and Estimation only (SOL 4.5 - 4.9) and is done without the calculator. There are 12 questions in this section.
• Part 2 will cover the remaining SOLs. On it, students may use a 4-function calculator.
• Students may not return to Part 1 to finish a problem once they have access to a calculator for Part 2.

Grade 5
• Allowable ancillary materials: rulers (should be whatever students are comfortable with using such as rulers marked to the nearest 1/8" inch), scratch paper, protractor or angle ruler, 4-function calculators (on part B of the test) The scratch paper could be blank grid paper but the x-y axes cannot be pre-drawn or labeled on it.
• Although the test will only assess the Grade 5 SOL, earlier grade skills may be involved in some problems. For example, since coordinate graphing is a 4th grade SOL, there could be a problem which requires students to locate information on a coordinate graph in order to do another task.
• Conversion of measurement units from one system to another is not on the test except in temperature where students are asked to know ball park conversions (see SOL 5.11e).
• Part 1 will cover Computation and Estimation only (SOL 5.3 - 5.7) and is done without the calculator. There are 12 questions in this section.
• Part 2 will cover the remaining SOLs. On it, students may use a 4-function calculator.
• Students may not return to Part 1 to finish a problem once they have access to a calculator for Part 2.

Grade 6 – NEW SOL TEST THIS YEAR
• Allowable ancillary materials: rulers (should be whatever students are comfortable with using such as rulers marked to the nearest 1/8" inch), formula sheets, scratch paper, scientific calculators (on part B of the test). The scratch paper could be blank grid paper but the x-y axes cannot be pre-drawn or labeled on it. The formula sheet is a 6th-grade specific one (you can see this formula sheet on the 6th Grade Blueprint.)
• Part 1 will cover Computation and Estimation only (SOL 6.6 - 6.8) and is done without the calculator. There are 10 questions in this section.
• Part 2 will cover the remaining SOLs. On it, students may use a scientific calculator. They may NOT use a 4-function calculator.
• Students may not return to Part 1 to finish a problem once they have access to a calculator for Part 2.
• Though integers are on the test (SOL 6.5), there are no questions which require integer operations. The SOL strictly says "The student will identify, represent, order, and compare integers."
• Although the test will only assess the Grade 6 SOL, earlier grade skills may be involved in some problems. For example, since coordinate graphing is a 4th grade SOL, there could be a problem which requires students to locate information on a coordinate graph in order to do another task.

Grade 7 – NEW SOL TEST THIS YEAR
• Allowable ancillary materials: rulers (should be whatever students are comfortable with using such as rulers marked to the nearest 1/8" inch), formula sheets, scratch paper, scientific calculators (on part B of the test). The scratch paper could be blank grid paper but the x-y axes cannot be pre-drawn or labeled on it. The formula sheet is a 7th-grade specific one (you can see this formula sheet on the 7th Grade Blueprint.)
• Part 1 will cover Computation and Estimation only (SOL 7.4 - 7.6) and is done without the calculator. There are 7 questions in this section. ALSO, there may be some questions from Number and Number Sense (SOL 7.1-7.3) included in this section, especially those involving order of operations.
• Part 2 will cover the remaining SOLs. On it, students may use a scientific calculator. They may NOT use a 4-function calculator.
• Students may not return to Part 1 to finish a problem once they have access to a calculator for Part 2.
• Although the test will only assess the Grade 7 SOL, earlier grade skills may be involved in some problems.

Grade 8
• Allowable ancillary materials: rulers (should be whatever students are comfortable with using such as rulers marked to the nearest 1/8" inch), formula sheets, scratch paper, scientific calculators). Since the 8th grade test will be online, patty paper is prohibited for 8th graders. The scratch paper could be blank grid paper but the x-y axes cannot be pre-drawn or labeled on it. The formula sheet is the same one used in previous years (you can see this formula sheet on the 8th Grade Blueprint.)
• The scientific calculator can be used throughout the test.
• Although the test will only assess the Grade 8 SOL, earlier grade skills may be involved in some problems.
• Note that there will be 16 questions from the Patterns, Functions, and Algebra strand.
• Local divisions have the option of allowing 8th grade Algebra I students to take both the Algebra EOC test and the 8th grade test. This may be the last year for double-testing.

Other notes:
• Teachers will NOT be allowed to review the test.
• The 2006 tests for Grades 4, 5, 6, 7, and 8 will not be released for several more years.
• On the D.O.E. website you can now download the 2005 released tests for Grades 3, 5, Algebra, I, and Geometry. The 8th grade test and the Algebra II test from 2005 are not going to be released yet.
• Middle School students should have ample time to practice using the scientific calculators prior to test day. Remember that 4-function calculators are NOT allowed in Grades 6-8.

Upcoming Meetings

National Council of Teachers of Mathematics (NCTM)
84th Annual Meeting: "Asking Questions – Generating Solutions"
April 26-29, 2006
St. Louis, Missouri
Contact: http://www.nctm.org

National Council of Teachers of Mathematics (NCTM)
Regional Conference
October 11-13, 2007
Richmond, Virginia
Contact: http://www.nctm.org

Name _____

Circle one: New Member   Renewal

School _____   Annual Membership Dues $5.00   _____

School Address _____   Dinner Fee $5.00   _____

Home Address _____   TOTAL ENCLOSED   _____

E-mail Address _____

See you at TAHS on April 20!

V²CTM Reflection
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**PLEASE SHARE THIS NEWSLETTER WITH ALL MATHEMATICS TEACHERS,
GRADES K-12**