

STRENGTHENING LEADERSHIP AND TEACHING FOR LEARNING



Visual Math Conversations: Effective Strategies from Asia



Grades K-2: April 17 & May 7, 2012

Grades 3-5: April 18 & May 8, 2012

CESA#9, Tomahawk

Two Full Day Sessions for each Strand

Grades K-2: Addition, Subtraction, Place Value

Grades 3-5: Multiplication and Division, Decimals, Fractions

Day One:

Introduction to problem-solving methods, mental math strategies, math modeling

Determine key math vocabulary for your grade

Learn whole number teaching sequences and thinking-clarification strategies

Create effective math problems

Day Two:

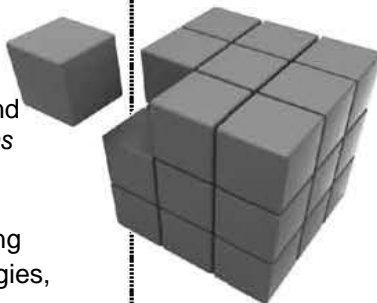
Identify the most difficult and subtle math concepts for US children

Learn base ten teaching sequences and thinking-clarification strategies

Determine useful manipulatives and models

Design an instructional math plan for your classroom/school

WI PI 34 Standards Addressed: #1, 2, 3, 4



Students can easily solve multiple step word problems, quickly manipulate large number problems mentally, and create challenge problems for each other to solve.

Create richer math thinking using unique visual tools which have proven effective internationally.

Strengthen your existing math program while upgrading to the increased emphasis on written and mental problem-solving found in the new *Common Core State Standards for Mathematics, 2010*.

Participants will:

- Use a visual process to solve multiple-step math word problems easily (Singapore and Hong Kong math techniques).
- Use critical vocabulary to structure conversations to deepen math understanding (*Common Core* math vocabulary)
- Understand the power of base ten place value to manipulate numbers easily
- Apply these processes to your existing math materials

- Learn how to present concepts in the simplest, clearest way; the appropriate sequential order for developing math skills; what students find difficult; and what errors they are likely to make.
- Lay a foundation for algebraic thinking.
- Develop deep understanding of equality, place value, fractions and mathematical problem-solution using whole numbers, decimals and fractions.

The *Common Core State Standards for Mathematics* stress conceptual understanding of key ideas by continually returning to organizing principles such as place value or the laws of arithmetic to structure those ideas...But what does mathematical understanding look like? One hallmark is the ability to justify, in a way appropriate to the student's mathematical maturity, why a particular mathematical statement is true or where a mathematical rule comes from...The student who can explain the rule understands the mathematics, and may have a better chance to succeed... Mathematical understanding and procedural skill are equally important, and both are assessable using mathematical tasks of sufficient richness. (*Common Core State Standards for Mathematics, 2010*)

Presented by Dr. Rosalynn Kiefer, WASCD Past President and former Director of Instruction. Ros is currently an adjunct instructor at Alverno College and Marquette University.



Visual Math Conversations Registration Information

CESA Event #	Description	Date(s)	Times	Cost <i>(Payable to CESA 9)</i>
154-12	Grades K-2	April 17 & May 7, 2012	8:30 – 3 pm	\$299.00
155-12	Grades 3-5	April 18 & May 8, 2012	8:30 – 3 pm	\$299.00
156-12	Both Grades K-2 and 3-5 (4 Sessions)	April 17 & 18 and May 7 & 8, 2012	8:30 – 3 pm	\$549.00

Questions?

www.wascd.org office@wascd.org
 262.242.3771 or
 CESA #9, Karen Wendorf-Heldt, kheldt@cesa9.k12.wi.us

Register Online by April 10, 2012 at:

<http://www2.cesa9.k12.wi.us/registration/>

Upon completion of your online registration, you will receive an automated email from the CESA #9 registration system. If you do not receive this email, your registration is not complete.

Registration Terms	Cancellation Policy	Location	Food and Beverage
<p>For all cancellations not received within a 48 hr notice, there is a \$25 processing fee. There are no refunds 3 days prior to or after the program.</p> <p>Checks or Purchase Order(s) payable to:</p> <p style="text-align: center;">CESA #9 P.O. Box 449 Tomahawk, WI 54487</p>	<p>CESA 9 reserves the right to move or cancel meetings because of low registration. That is why it is important to register early. In the unlikely event of a cancellation, all registrants will be notified via email and will receive full refunds.</p>	<p style="text-align: center;">CESA #9 304 Kaphaem Rd Tomahawk WI 54487</p> <p style="text-align: center;">www.cesa9.k12.wi.us</p> <p style="text-align: center;">715.453.2141 Fax 715-453-7519</p> <p style="text-align: center;">8:30 a.m. – 3:00 p.m. (check in: 8:00 – 8:30 am)</p>	<p>Program includes morning snack, beverages and lunch.</p> <p>Lodging: Participants are responsible for securing their own lodging</p>