Welcome to a brand new year of Math Resource Newsletters! For our September –October newsletter we have provided articles for your reflection and professional growth, opportunities for classes and webinars focused on pedagogical and content knowledge, and information surrounding our C2.0 rollout at the elementary and the secondary levels. Happy reading!

“My Favorite No: Learning from Mistakes”

Teaching students to learn from their mistakes instead of erasing them in frustration is a tricky task! The teaching channel shares one teacher’s strategy that pushes students to realize that wrong answers are an important part of the learning process. Watch the video and give it a try with your students!
Professional Learning Library
Articles to support your growth as a professional and spark ideas for your classroom!

How do we interest students in math?

- Storytelling to Interest Students in Math
- State Troopers Teach Math Lessons to High School Students
- Zombies Infiltrate Classrooms to Bring STEM Back to Life
- The Power of the Morning Meeting: 5 Steps toward Changing Your Classroom and School Culture

How do we grow as educators?

- Students' Happiness at School goes a Long Way in Learning
- Getting Beyond First-Year Teaching Jitters
- Tips for Coaching New Teachers
- Study: Strong Basic Math Skills Key to Later Learning
- Recess can Reduce Bullying and Prepare Kids to Learn
- 'Growth Mindset' Gaining Traction as School Improvement Strategy
- Encouraging Educator Courage
How do we use technology effectively?

**Apps are the new flashcards for kids**

**A Digital Future: K-12 Technology by 2018**

**Looking for Real World Math Problems? Try Google Earth**

**Calculator Use on Exams to Shift with Common Core**

**6 Ways Teachers can Use Google Handouts**

Speaking of Technology…

**There’s an App for That!**

Pinterest is for more than collecting recipes and checking out e-cards! Check out the [NCTM Illuminations](https://www.nctm.org) pinboard for some free activities and ideas in your classroom.

What if I were to tell you that Angry Birds had been surpassed in the App Store — by a game that involves solving algebra equations? Because that’s what DragonBox did! Read more about it [here](https://www.dragonbox.com).

**Edmodo** is designed to get students excited about learning in a familiar environment. On Edmodo, teachers can continue classroom discussions online, give polls to check for student understanding, and share resources with parents and students.
Trying to develop your students’ reasoning skills?

Check out Wonderopolis!

Wonder is for everyone. It can happen anywhere and at any time. Connecting the learning we do in our schools, our homes, and our communities, Wonderopolis walks the line between formal and informal education.

Each day, they pose an intriguing question and explore it in a variety of ways. Their approach both informs and encourages new questions, sparking new paths of wonder and discovery in family and classroom settings.

Did you catch the “Teach” documentary?

In early September a documentary on teaching aired on CBS. Filmmaker Davis Guggenheim's last education documentary, "Waiting for 'Superman,'" sparked major debates over school reform, charter schools, and teachers' unions in 2010. In the new film, “Teach,” there are no charter schools, no teachers' union politics, and no major education debates. The film just focuses on the efforts of four young teachers in the classroom. Read more about it here!

Did you miss it? Check out another airing on PIVOT or iTunes!
Professional Development Opportunities
Looking for a learning opportunity? Check out some of these webinars and classes!

**Upcoming Webinars**

SchoolsMovingUp, a WestEd initiative, connects schools and districts with experts, resources, and each other on topics related to improving student outcomes. The staff uses innovative web-based strategies, online resources, and webinars to engage a wide variety of educators, disseminate information, and facilitate discussion about connecting research to practice.

Take a [CPD](#) class to extend your own mathematical knowledge and enhance student learning in your classroom!

**Developing Student Understanding of the Number System and Fractions**

Participants will improve content and pedagogical knowledge for teaching mathematics as they explore the mathematical standards for “Number & Operations – Fractions” and “The Number System” as outlined by the Common Core State Standards for grades 3-8.
Curriculum Corner

Another big year for C2.0 roll-outs! Check out how some schools have introduced the curricula to parents and some opportunities for professional development!

An “Evening of Algebra”

Kingsview Middle School and Banneker Middle School both invited their parents out to learn more about the first new Common Core curriculum rolling out at the secondary level.

Both schools reported successful evenings where their parents had the opportunity to learn about C2.0 Algebra, engage in mathematical tasks from the curriculum, and ask questions.

Check out some of the pictures from Kingsview’s “Evening of Algebra.”

More Information for Parents

Change is difficult for everyone! Here is a document the state provided to help answer parent questions as we transition to our new curricula!

Top 10 Things Parents Need to Know about the Common Core State Standards

New educational standards, called the Common Core State Standards (CCSS), are being implemented in all Maryland public schools beginning in the 2013-14 school year. The CCSS are a set of consistent, high-quality academic goals in English/language arts (ELA) and mathematics. The standards define the knowledge and skills all students should master by the end of each grade level in order to graduate from high school fully prepared to enter college and the workforce. The CCSS raise the bar for student achievement and will help Maryland build a world-class education system.

Why do we need new educational standards and what do they mean for Maryland students? Here is a list of the top ten facts about the Common Core State Standards all parents should know.

#1 The goal of the CCSS is college and workforce readiness for all students. As students progress through the grades, they will

#2 States led the effort to develop the CCSS, not the federal government.
Check out our Community Algebra PLC (CAP)
Come support one another and learn from other teachers in the MCPS Algebra community! Every month we are offering voluntary “Community Algebra PLCs” to support our teachers.

Next CAP Date: Thursday, Oct. 24th
Time: 3:30-5:30
Place: Richard Montgomery High School

On Oct. 24th CAP participants will be able to engage in 3 of the following sessions:
✓ Special Needs and UDL strategies
✓ Supplemental Curriculum Resources
✓ Recursive and Explicit Functions/Sequences
✓ Promoting Student Discourse and Engaging in Collaborative Work
✓ Rich and Engaging Tasks/Manipulatives

Participants will also have computer labs available to collaborate with Algebra teachers and have access to the Instruction Center.

A Great Resource for our Elementary Schools!
Elementary Schools are receiving 2 books from the series Common Core Mathematics in a PLC at Work. This guide helps teachers prepare to implement Common Core State Standards (CCSS) for mathematics through working in collaborative teams based on the Professional Learning Community at Work™ model for PLCs. There are also books for 6-8 and High School available for secondary schools. Click here to find more information!
New Data Collection Tools for Kindergarten, Grade 1, and Grade 2!

New Data Collection tools for addition and subtraction problem situations are rolling out on the Instruction Center for our primary friends.

Check them out and reflect on how to best use them as the same problem types will reappear in greater complexity in future grade levels with fractions and variables!

Maryland
MATHALON

The MATHALON is a statewide middle school mathematics competition with a maximum of 50 teams. The 2013 event marks its 28th year! All middle schools in the state of Maryland are invited to attend by sending a team of four students to the event. Multiple teams from the same school are welcome, space permitting.

The event consists of three rounds of competition, each scored independently: individual test, team test, and the invention round. The individual test and the team test are both written examinations taken by individuals and the school team respectively.

The invention round is done by teams of four students from four different schools (who therefore do not know each other). The teams first choose one of five "inventions" to design and build. Then, without help from any adult coach, the team is given 20 minutes to completely build their invention using only the materials provided. Judging, which depends on the invention, is explained in advance, so there are no surprises.
Some Final Thoughts…

2 great articles from organizations that promote professional growth and reflection! Are you a member? Is your school?

**Educational Leadership**

*Getting Beyond “I Hate Math”* is an article about reaching our students who struggle with math on a daily basis.

The article gives 8 strategies to get beyond “I Hate Math!”
1. Emphasize.
2. Solidify your own understandings.
3. Use a variety of activities and supports.
4. Tune in to how you talk about math.
5. Answer all questions respectfully.
6. Be intentional about homework.
7. Reframe the purpose of quizzes and tests.
8. Praise effort and reinterpret mistakes.

**National Council of Teachers of Mathematics**

*Changing the Rules to Increase Discourse* is an article from Teaching Children Mathematics that examines a strategy to challenge the traditional “raise-your-hand-to-speak” tradition in an elementary classroom.

The article’s authors give guidelines to their students to increase productive discourse:
1. Explain your reasoning.
2. Begin a disagreement with specific questions/explanations based on what you heard.
3. Question others when you do not understand what they are saying.
This month’s newsletter brought to you by your friends at the DCI-Math Implementation and Development Team.

**Director**
Ed Nolan

**Supervisor**
Heather Jones

**Content Specialists**
Kimberly Kirk
Christopher Love
Naomi Resnick
Sherri Stevens
Carla Britt
Jennifer Hallmark
Kristinae OLaughlin
Somer Snider
Brian Crane
Katie England
Debbie Hiltner
Brad Watts
Jennifer Fribush
Miim Kwak
Catherine Malchodi

**Administrative Secretary**
Melanie Baxter

We Want to Hear from You!
Thinking about future newsletters…

A lot of thought goes into each newsletter and we would love to hear what has been helpful to you and what you would still like to see!

Please email us about what you would like to see in the newsletters during the 2013-2014 school year.