



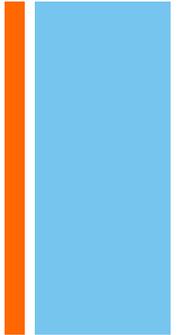
Best Practices in K-8 Math Planning, Instruction, and Assessment



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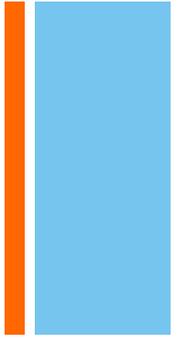
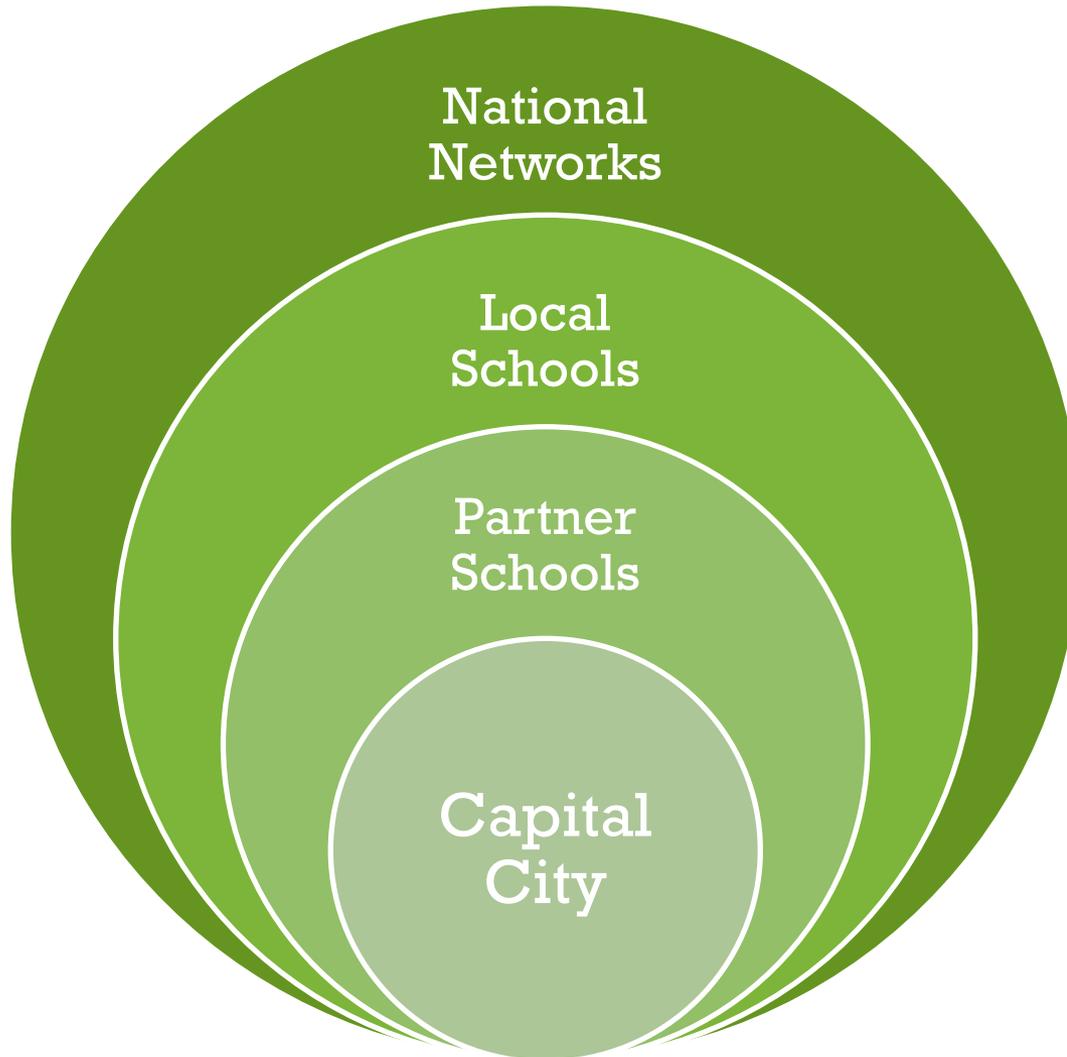


+ Goals

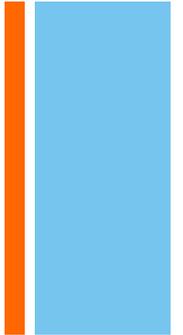


- Share **planning** practices and resources for strong implementation of Common Core Math Standards
- Improve **instruction** through high-quality professional development including Labsites and coaching
- Develop and share K-8 math benchmark **assessments** aligned to Common Core Math Standards

+ Dissemination



+ Planning



Developed
process to map
curriculum to
Common Core

Refined Math
Maps with
Capital City
teachers

Shared process
and maps with
partner
schools

+ Sample Math Map: 6th Grade

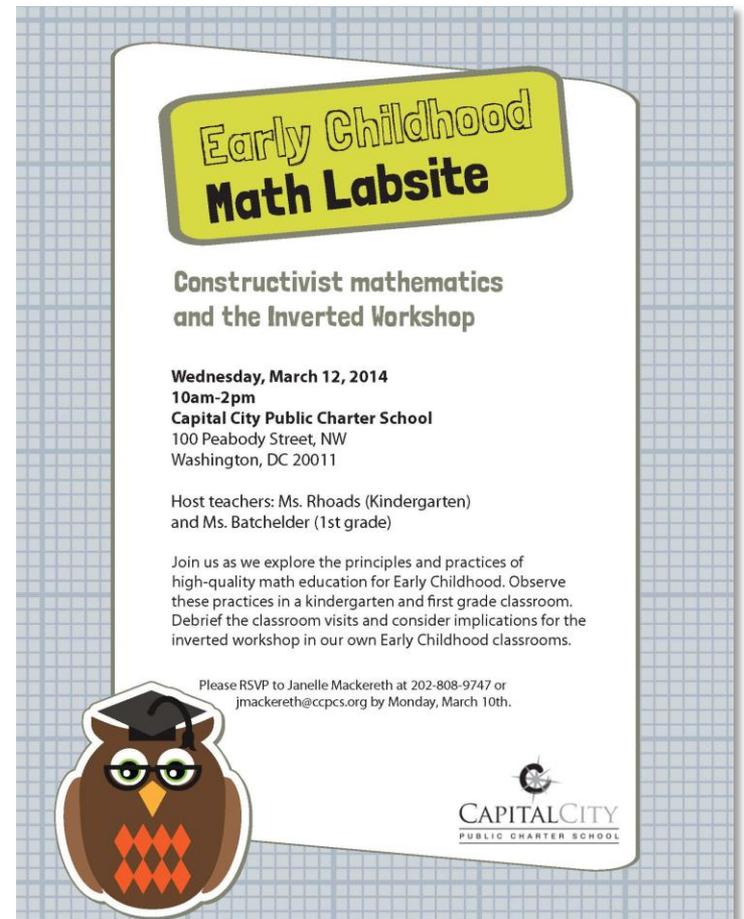
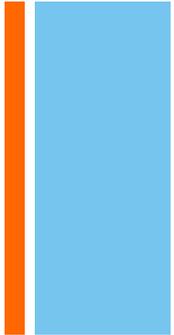


Unit Timeline		Key Instructional Resources: Texts, Lessons, Activities, Projects, and Games	Differentiation Tools	Assessments (Pre-assessments, Formative, and Summative)
<p>Dates: September 9/3-9/13 (9 days) (2 wks)</p> <p>Unit - 0 GETTING STARTED</p> <p>Building Routines, Setting Expectations & Assure Basic Skills</p>	<p>CC Standards and Learning Targets:</p> <p>5.NBT.5. Fluently multiply multi-digit whole numbers using the standard algorithm. <i>I can fluently multiply multi-digit whole numbers.</i></p> <p>6.NS.3 Fluently add, subtract, multiply, and divide multi-digit decimals using the standard algorithm for each operation. <i>I can fluently add, subtract, multiply, and divide multi-digit decimals.</i></p> <p>6.NS.2 Fluently divide multi-digit numbers using the standard algorithm. (division and multiplication of multi-digit whole numbers and decimals is thoroughly covered in 5th grade, including area models, arrays, algorithms, etc... in 6th grade emphasize fluency and include decimals - no longer using remainders) <i>I can fluently divide with multi-digit numbers.</i></p> <p>Estimation (There is not really a specific standard for this but it is a skill that is embedded in many of the standards and is part of the Common Core Practices. Estimation should be emphasized all year. We want students to be in the habit of estimating an answer and then comparing their answer for reasonableness. The beginning of the year is a good place to teach some explicit ways of estimation, but we need to make sure we are continually using it...)</p> <p>Guiding Questions:</p> <ul style="list-style-type: none"> • What are some different ways to estimate? • Why are estimates useful? • How good does an estimate need to be? • How do you determine if your answer is correct? 	<p>Math Journal:</p> <ul style="list-style-type: none"> • My Math Story • Headline Stories <p>PBT:</p> <ul style="list-style-type: none"> • Counting Trees (Estimation) <p>CMP3 Decimals and Operations Book</p> <p>Introduce Benchmark Process and Rubric</p> <p>Setting up and starting math journals - making a rubric to grade them</p> <p>Unit Project:</p> <p>Make your own unit</p> <p>Introduce Feedback Protocols, classroom discussion methods and norms</p>	<p>Strugglers: manipulatives use hundreds cubes and graph paper</p> <p>High Flyers: Contextual Problems Multi-Step Operations</p>	<p>Pre-Assessment Test for 6th grade readiness</p> <p>Fluency Quiz for multiplying, dividing whole numbers and decimals</p> <p>Benchmarks: None Retake 5th grade BM on decimal operations</p> <p>5th add/subtract decimals BM 5th mult/divide decimals BM</p>
<p>Dates: Late Sept. - Mid. Oct. (9/16-10/2) 11 days (3 wks)</p> <p>Unit - 1 PRIME TIME</p>	<p>CC Standards and Learning Targets:</p> <p>6.NS.4 Find the greatest common factor of two whole numbers less than or equal to 100 and the least common multiple of two whole numbers less than or equal to 12. Use the distributive property to express a sum of two whole numbers 1–100 with a common factor as a multiple of a sum of two whole numbers with no common factor. For example, express 36 + 8 as 4(9 + 2). <i>I can find the greatest common factors of two whole numbers (up to 100).</i></p>	<p>Math Journal:</p> <ul style="list-style-type: none"> • My favorite number • Number Web • Headline Story • Eliminate it! <p>PBT:</p> <ul style="list-style-type: none"> • Introduce GCF: Dog Pens problem 	<p>Strugglers: Small group work Allowed calculator use (or mult. table) Tiered note taking Manipulatives and Examples</p> <p>High Flyers: Contextual Problems</p>	<p>Nightly Homework</p> <p>Quizzes Determining Factors versus Multiples story problems Order of Operations Quiz</p> <p>Benchmarks: None</p>



Instruction

- Developed a Math Cadre of teacher leaders
- Hosted a Summer 2013 Math Retreat
 - Focused on exploring practice standards and planning for implementation.
- Hosted labsites focused on Standards of Mathematical Practices
 - Examples: “Growing Math Writing: Using Conferring as a Lever,” “Launching the Inverted Workshop”



Early Childhood Math Labsite

Constructivist mathematics and the Inverted Workshop

Wednesday, March 12, 2014
10am-2pm
Capital City Public Charter School
100 Peabody Street, NW
Washington, DC 20011

Host teachers: Ms. Rhoads (Kindergarten) and Ms. Batchelder (1st grade)

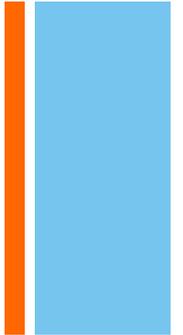
Join us as we explore the principles and practices of high-quality math education for Early Childhood. Observe these practices in a kindergarten and first grade classroom. Debrief the classroom visits and consider implications for the inverted workshop in our own Early Childhood classrooms.

Please RSVP to Janelle Mackereth at 202-808-9747 or jmackereth@ccpcs.org by Monday, March 10th.





Assessment



- Developed K-8 math assessments aligned to Common Core Standards
- Developed Resources for Implementation
- Created Wiki Site to share assessments
 - <http://www.mathroot.wikispaces.com>



For more information, contact:

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202-808-9747