Elementary Math Supplemental Program Initiative  
Informational Zoom Calls

Zoom calls are being offered to address specific questions about all additional math program options (Eureka Math, EngageNY, Illustrative Mathematics).

**Offering of Districtwide Zoom Calls:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Link to Zoom Session</th>
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<tbody>
<tr>
<td>Monday, December 9th</td>
<td>3:30 p.m. – 4:15 p.m.</td>
<td><a href="bit.ly/elem-math-options1">bit.ly/elem-math-options1</a></td>
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<tr>
<td>Tuesday, December 10th</td>
<td>3:45 p.m. – 4:30 p.m.</td>
<td><a href="bit.ly/elem-math-options2">bit.ly/elem-math-options2</a></td>
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<tr>
<td>Thursday, December 12th</td>
<td>3:45 pm – 4:30 pm</td>
<td>[12-12-19 Math Options Zoom](12-12-19 Math Options Zoom)</td>
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<tr>
<td>Friday, December 13th</td>
<td>3:30 pm – 4:15 pm</td>
<td>[12-13-19 Math Options Zoom](12-13-19 Math Options Zoom)</td>
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<tr>
<td>Monday, December 16th</td>
<td>9:00 am – 9:45 am</td>
<td>[12-16-19 AM Math Options Zoom](12-16-19 AM Math Options Zoom)</td>
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<tr>
<td>Monday, December 16th</td>
<td>3:30 pm – 4:15 pm</td>
<td>[12-16-19 PM Math Options Zoom](12-16-19 PM Math Options Zoom)</td>
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<tr>
<td>Tuesday, December 17th</td>
<td>9:00 am – 9:45 am</td>
<td>[12-17-19 Math Options Zoom](12-17-19 Math Options Zoom)</td>
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It is recommended that principals engage all stakeholders, teachers, and parents in conversations about the supplemental math material options. Possible questions to consider include:

1. How aligned to the CA Framework/Standards is the math curriculum you are currently using, based on your own school’s curriculum analysis or in reviewing the EdReports reviews below?

2. To what degree does your current math program position children as mathematically competent and build positive, productive math identities?

3. What would it look like to spend time collaboratively planning lessons using your knowledge of the California Framework and the standards, and your students as a guide?

**Division of Instruction and Local District Math Coordinators’ Statement**

“We teach the standards, not a textbook,” has been an ongoing theme in LA Unified Mathematics. We support teachers and administrators in creating what it means to have a student-centered math classroom.”

Since the teacher is the critical consumer of the resources, and selects instructional materials to best support the learners in their classroom, the following attachments provide considerations for each supplemental math program as school teams engage in decision-making discussions.
## Overview of Eureka Math

### Program Components

- Overview of lesson are provided for planning, including content and practice standards, scaffolds, assessment summary
- Eureka Math Recorded Webinar "Resource Overview Session" shows what online resources are currently available for Eureka Math (including free resources).
- Eureka Math PD Resources are available for free on the Eureka Math Webinar Library.
- View a Eureka Math Lesson taught by LAUSD teacher and Eureka Math content writer, Lisa Watts Lawton.
- Terminology, suggested tools & representations
- Suggested Lesson Structure (approximately 60-minute lesson) includes:
  - Fluency Practice
  - Application Problem
  - Concept Development
  - Student Debrief

### Positive Aspects

- Aligned to the California State Standards
- Highly ranked curriculum on EdReports
- Is the updated printed and online version of the original Engage NY curriculum with additional enhancements
- Content has been included in the curriculum maps
- Includes professional learning for staff and administrators
- Has a wealth of materials to support all learners, including ELs, Special Education
- Can be used to support the District Initiatives of Number Talks, Three-Phase Problem Solving and Talk Moves
- Robust online platform
- Experience of many teachers using the program

### Considerations

- Selecting from the wealth of materials can be challenging and requires careful planning
- The emphasis on timed fluency is in conflict with mathematical mindset research
- The explicit teaching of strategies can be in conflict with Cognitively Guided Instruction
## Overview of Illustrative Mathematics

### Program Components

<table>
<thead>
<tr>
<th>Kindergarten</th>
<th>Second Grade</th>
<th>Fourth Grade</th>
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<tbody>
<tr>
<td>First Grade</td>
<td>Third Grade</td>
<td>Fifth Grade</td>
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- Learning goals, standards, materials, lesson narrative (background information for teacher)
- Kendall Hunt/Illustrative Mathematics Webinar: [https://youtu.be/pDW13KDgV0k](https://youtu.be/pDW13KDgV0k)
- IM webinar, 1.16.19, 1:00 pm, and sample materials: [https://www.illustrativemathematics.org/lausd/](https://www.illustrativemathematics.org/lausd/)
- K-5 Scope and Sequence from Alpha test
- Sample grade level materials for the Beta test

- Suggested Lesson Structure (approximately 60-minute lesson):
  - Warm-Up (e.g., Number Talk, Which One Doesn’t Belong, Notice and Wonder)
  - Activity 1 and Activity 2 (Task Statement, Launch/Activity, Student Response, Synthesis)
  - Center Activities

### Positive Aspects

- Developed with Dr. William McCallum, one of the authors of Common Core State Standards - Mathematics, aligned to the California State Standards
- The elementary curriculum is currently in beta-testing of the newly developed materials for release in 2021-2022, providing a first-look at a widely anticipated new resource
- The middle school and high school curriculum is already released and highly rated by EdReports ([https://edreports.org/reports/overview/learnzillion-illustrative-mathematics-6-8-math-2018](https://edreports.org/reports/overview/learnzillion-illustrative-mathematics-6-8-math-2018))
- Clearly structured to support the District initiatives of Number Talks/Number Sense Routines, Three-Phase Problem Solving and Talk Moves
- Curriculum has already been included in the District curriculum maps
- Robust Center instruction- less components
- Supported with professional learning for teachers and administrators
- Includes scaffolds and support for English Learners (ELs):
  - Based on the work of UL/SCALE at Stanford University (Jeff Zwiers)
  - Ties in with the work MMED has emphasized and endorsed for ELs
  - Includes Math Language Routines (MLRs) as scaffolds to support ELs with language development
- Culturally responsive lesson structure

### Considerations

- Only limited lessons and centers are available for review currently
- Participating teachers will be asked to teach the program with integrity
- Online platform is in development
## Overview of Selecting Engage<sup>NY</sup>

This program is the first and second version of Eureka Math on contract for the State of NY

<table>
<thead>
<tr>
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<tr>
<td>• Suggested lesson structure (60-minutes):</td>
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<tr>
<td>o Fluency Practice</td>
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<td>o Application Problem</td>
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<td>o Concept Development</td>
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<td>o Problem Set</td>
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<td>o Student Debrief</td>
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<tr>
<td>• Two-Day PD, DOI supported</td>
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<th>Positive Aspects</th>
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<tr>
<td>• Aligned to the California State Standards</td>
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<tr>
<td>• The open source Engage NY curriculum included in the curriculum maps</td>
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<tr>
<td>• Assessments are included in the LA Unified Assessment Bank for interim assessments</td>
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<th>Considerations</th>
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<tr>
<td>• Printed materials are costly and this option may be discontinued, with schools re-directed to Eureka Math</td>
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Important Points from the LA Unified Math 5-Year Plan

The following philosophical position statements provide considerations for school teams as they engage in decision-making discussions.

Children’s Thinking as the Central Philosophy for Mathematics Instruction
Historically, there has been an emphasis on teaching practices. While this is still important, we have shifted our philosophy to prioritize understanding children’s thinking as the key goal to impact our teaching practices. This is what it means to have a student-centered classroom.

“Over the past thirty years, we have observed how much children are capable of learning when their teachers truly understand children’s thinking and provide them an opportunity to build on their own thinking. We also have learned from teachers how important it is for them to have explicit knowledge of children’s mathematical thinking.” (Children’s Mathematics, p. xviii)

Mathematical Mindsets Research Drives Shifting Culture of Teaching and Learning
In recent years, there has been much research on the impact that mindsets and identity have on teaching and learning.

“For many of us, appreciating the importance of mathematical mindsets and developing the perspective and strategies to change students’ mindsets involves some careful thinking about our own learning and relationship with mathematics.” (Mathematical Mindsets, p.8)

The challenge is to shift the beliefs that society has held onto for many years about who can be mathematicians, teachers of mathematics, and who is capable of learning mathematics. As a result, development of mathematical mindsets in students, teachers and parents helps ensure that all students have access to rigorous mathematics instruction with the belief that all students can and will succeed.

Elementary Math Initiatives
Number talks/Number Sense Routines, three-phase problem solving, and talk moves continue to be the three initiatives promoted by all local districts. Number talks/Number Sense Routines are the short, ten to fifteen minute of warmup routines at the beginning of the math block that build number sense and fluency. Three-phase problem solving uses real-world tasks by intentionally supporting the Before (set-up), During (work independently, with a partner) and After (whole group share-out) stages of the lesson. Talk moves are the teacher and student moves that promote student discourse, including re-voicing, re-stating, wait time, revising thinking, prompting students for further participation.

The Umbrella Framework for Elementary Initiatives: Cognitively Guided Instruction (CGI)
Cognitively Guided Instruction is a framework for teacher professional development, based on 30 years of research, in which children’s thinking is the center of the classroom. Dr. Megan Franke, Professor of Education at UCLA, and one of the authors of the hallmark book, Children’s Mathematics (2014), provides content and support through the UCLA Math Project (UCLAMP). With CGI, the emphasis is on eliciting children’s thinking, with classroom teachers using number sense routines and problem-solving as the vehicles for students to create their own sense-making in mathematics. Increasing teachers’ knowledge of student thinking leads to instructional decisions being made based on what students CAN do, and expands their thinking about mathematics. This professional
development model benefits teachers, as well as ALL students, as teachers’ knowledge and beliefs change as the students successfully engage with rigorous tasks, changing the way teachers think about who is capable of “doing math.”

**Cognitively Guided Instruction Principled Ideas (Dr. Megan Franke, *Children’s Mathematics*)**

1. Every student comes to math class knowing some mathematics.
2. Every student is capable of extending their mathematical ideas.
3. Knowing the trajectory of children’s thinking helps you know how to support that extension. “What am I working toward?”
4. Details of children’s thinking support instructional decision making.
5. We must challenge our assumptions about what students know and are able to do.
6. We must create space for the participation of each and honor the different ways in which students are participating.
7. Identity shapes participation, so we want to position students competently.

**Integrated English Language Development and Math (iELD)**

Working in collaboration with the Multilingual-Multicultural Education Department (MMED), integrated English language development math tasks have been created, supported with protocols aligned with the three-phase problem-solving model. The Three Reads Protocol, Student Interview Protocol and Math Summit Protocol are introduced through professional learning from MMED, and lesson plans and videos are available on the [MMED website](#).