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# Curriculum Update Mathematics

Board of Education Meeting: January 23, 2018

Dr. Susie Da Silva, Assistant Superintendent of Schools  
Linda Johnson, Elementary Math Program Director  
Dr. Felicia Bellows, 6-12 Mathematics Chairperson  
Dr. Jenny Trifiatis, Kindergarten Teacher, Ox Ridge Elementary School  
Christie Martin, Grade 1 Teacher, Royle Elementary School  
Joslyn Delancey, Grade 5 Teacher, Tokeneke Elementary School

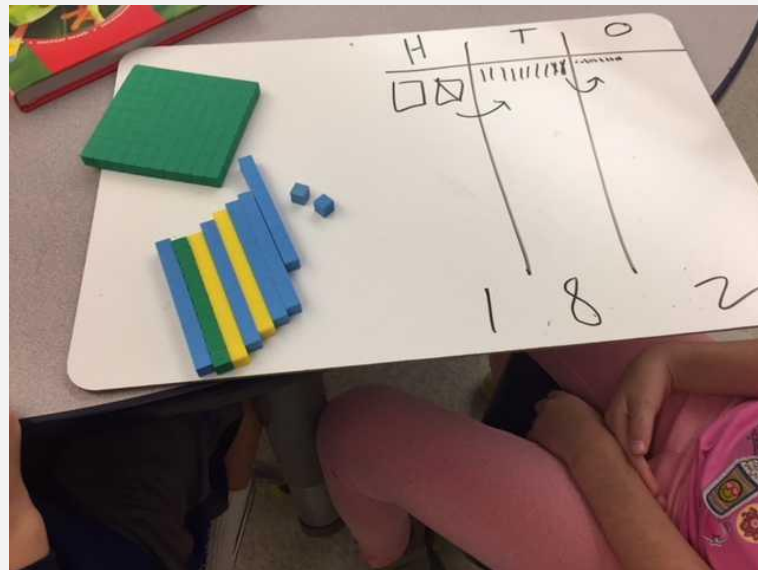
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“Investigate primary resources for K-5 mathematics, implications for 6-8 mathematics and make recommendations.”

# Guiding Questions

Is our elementary primary resource in mathematics fully aligned to the content, coherence and rigor of the Common Core State Standards and Practices (CCSS), with deep and careful attention paid to student thinking and understanding?

How will changes in our primary resource influence the middle school program?



# A Recap: 2015-2016 and 2016-2017

- Math Research Team Developed
- Collected feedback from a variety of sources regarding current math program
- Crosswalk of primary resources and curriculum conducted
- Revisions of scope and sequence, resources and professional development provided to teachers
- A comprehensive study of math programs to determine most appropriate programs to pilot.
- Two programs selected: Investigations 3 and Math in Focus
  - Implementation plan developed across 12 classrooms with 1 unit from each program
  - Units were aligned to those in Investigations 2

# Key Components of Investigations 3

- Student-centered inquiry mathematics
- Multiple strategies and solutions
- Formative Assessments and Summative Assessments
- Games, Ten Minute Math
- Digital Platform- students, teachers, parents



# What we found in the Implementation of Investigations 3

## In the Classroom:

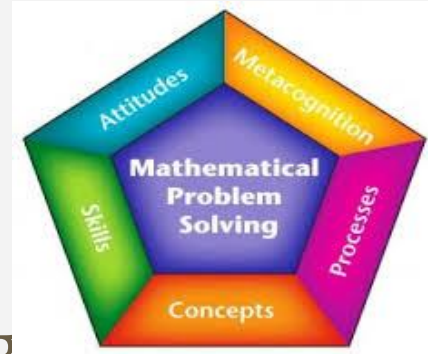
- Familiarity with Lesson Format
- Workbook Pages
- Games
- Online Resources

## Areas of Continued Work:

- Pedagogy
  - Teacher Modeling
  - Guided Practice
- Computational Fluency
- Problem Solving
- Differentiation

# Key Components of Math in Focus

- Conceptual understanding, computational fluency, problem solving
- Mastery Learning
  - Concrete Pictorial Abstract
  - Metacognition
  - Relevance-why teaching and learning
- Differentiation Resources (Pre-assessment, Reteach, Extra Practice and Enrichment)
- Everyday Counts
- Assessments
- Digital Platform-students, teachers, parents



# What we found in the Implementation of Math in Focus

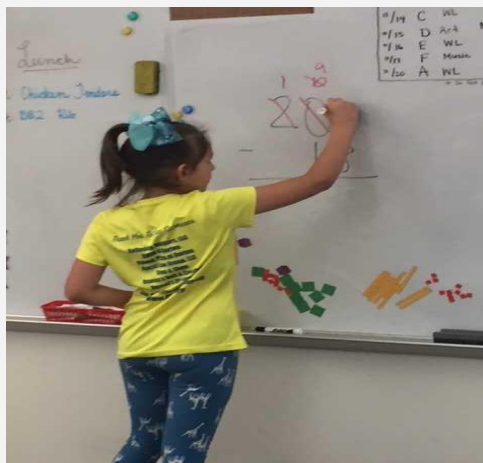
## In the Classroom:

Pedagogy- We Do, We Do, You Do

Concrete Pictorial Abstract

Math Language

Level of Questioning



## Areas of Continued Work:

Scope and Sequence and  
Lesson Pacing

Representation Crosswalk



# Rigor: Examples

## Investigations 3 Problem

- The principal at Lakeside Elementary School ordered 216 boxes of erasers. If the principal gives each classroom an equal number of erasers and there are 12 classrooms in the school, how many boxes of erasers will each classroom get?

**\*\*Investigations does not have problems that match MIF Non-Routine Problems**

## Math in Focus

- A charitable organization spends \$4,500 on food vouchers to families.
  - A. Each family receives 1 voucher worth \$25. How many families are there?
  - B. Each voucher will be worth \$32 next year. How much more money will the charity need next year?

## Real World Problems: Multiplication and Division

- Hannah and Francine have \$120. Hannah and Peter have \$320. Peter has 6 times as much money as Francine. How much money does Hannah have?

# A VISION FOR A SYSTEMATIC IMPLEMENTATION PLAN

- 3 Year Adoption Plan
- Professional Development Plan
- Parent Support
- Budget Implications

# A VISION FOR A TRANSITION PLAN TO MMS

- Math Research Team to be Developed
  - Math Vocabulary
  - Pedagogy
  - Problem Solving Strategies
  - Assessments/Rubrics

# THANK You!

Any questions?

