SUSD
Mathematics Instructional Materials Adoption Recommendation
Grades K-8

Saratoga Union School District
Board of Trustees Meeting
April 28, 2015

Overview of Presentation

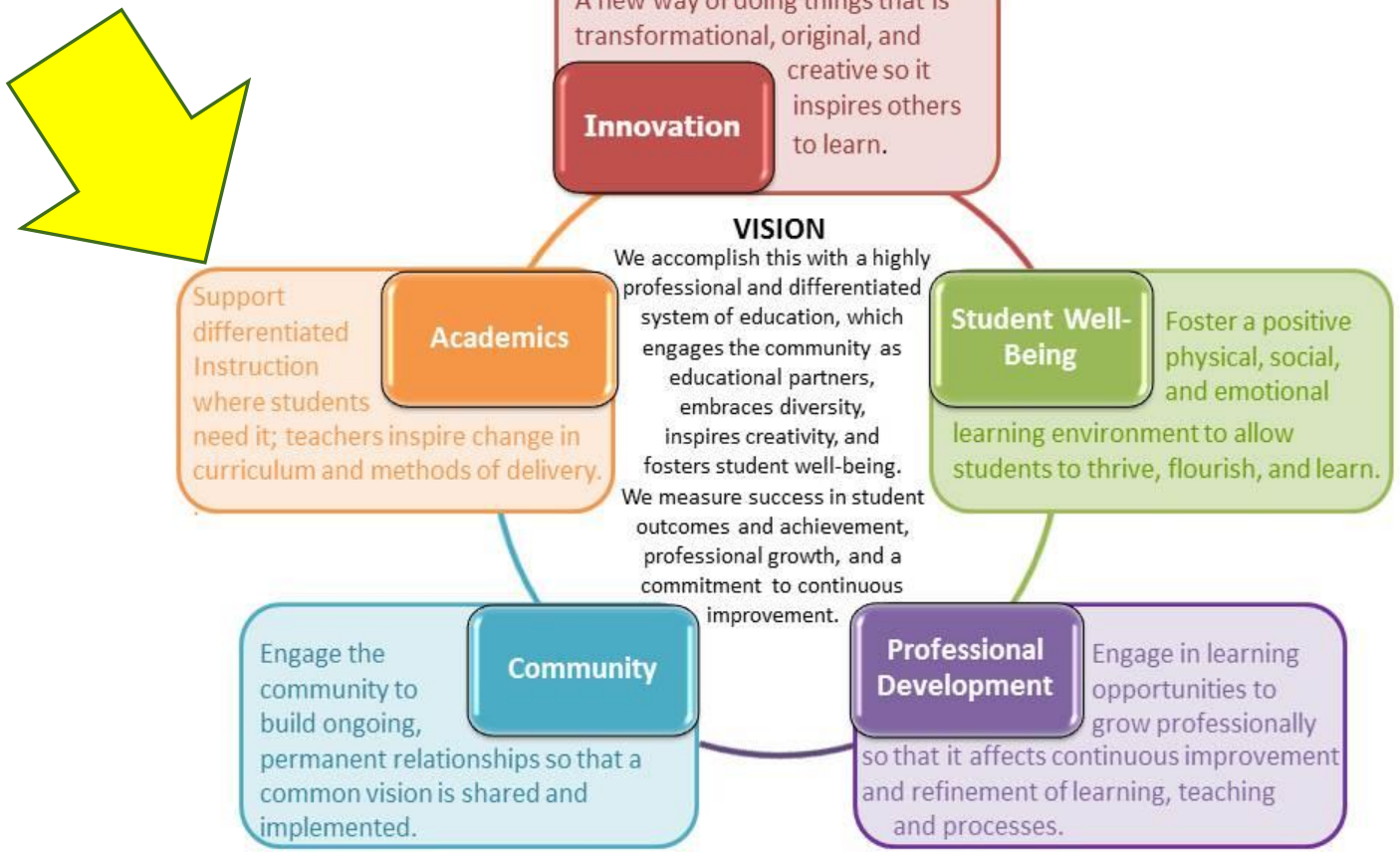
* Connections to the SUSD Strategic Plan and LCAP
* Purpose of Mathematics Adoption
* Process & Timeline
* Evaluation Criteria & Considerations: District Lens, Math Framework, Toolkit, Shifts, and Standards for Mathematical Practice
* Programs Reviewed
* Recommended Programs' Strengths & Challenges
* Professional Development
* Estimated Expenditures
* Implementation Plan
* Next Steps
* Recommendation

SUSD Strategic Plan

2014 – 2017 Saratoga Union School District Strategic Plan

MISSION:

Create an innovative public school system that stimulates intellectual curiosity, providing academic rigor for each and every learner, and instills leadership, responsibility, and global citizenship in a safe and nurturing environment where learners THRIVE.



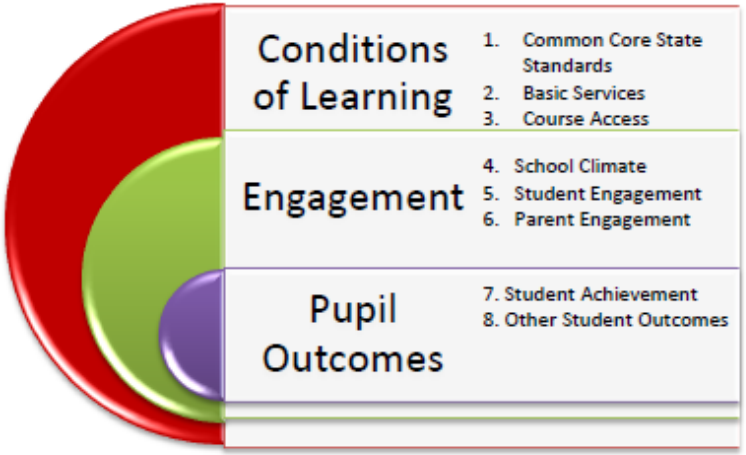
SUSD LCAP

Saratoga Union School District

SUSD' Local Control Accountability Plan (LCAP):

Meeting the Needs of Saratoga Union School District's Students

Eight state priority areas for which SUSD has established goals and actions:



Link to SUSD's LCAP: http://www.saratogausd.org/index.php/lcap

SUSD's LCAP Goals:

All SUSD students will reach high standards and will demonstrate upward movement in student achievement through CCSS- and NGSS- aligned instruction, assessment, and teacher professional development.

Our District and school sites will maintain effective communication, provide a process to include input from all stakeholders, and offer opportunities for family engagement.

Our students will be educated in a safe environment that integrates social emotional literacy and provides opportunities for engagement of students and stakeholders at all levels.

Our District will cultivate innovative and empowered learners through personalized learning, 21st Century Learning Skills (creativity, collaboration, communication, and critical thinking), and the infusion of technology.

Purpose of Mathematics Instructional Materials Adoption

Purpose of Instructional Materials Adoption

* SUSD Common Core Implementation Plan
* CA Education Code 60119
* SBE adopted materials: basic grade level, Algebra 1, Math 1
* Alignment to state-adopted Common Core State Standards for Mathematics
* Core program and supplemental resources

How does the adopted math curriculum fit into our math program?

* The adopted math curriculum serves as a **resource** for planning and implementing quality instruction.
* Teachers utilize a **variety of instructional practices and curriculum,** valuing conceptual understanding, problem solving, critical thinking and mathematical fluency.
* The **adopted math curriculum is not the sole reference** for what is taught or how it is taught.
* Teachers will use the adopted materials to **guide** them in planning and implementing lessons.

Purpose of Math Instructional Materials Evaluation Process

* Build on foundational documents (Common Core State Standards [CCSS], *Mathematics Framework*, *Math Progressions*) to inform the choice of pilot curriculum selections.
* Pilot selections and provide data and feedback using the *Mathematics Curriculum Evaluation Toolkit*
* Select K-5 and 6-8 core math curriculum to recommend to SUSD Board of Trustees

Process & Timeline

Committee Members

Thank you to these people for their professionalism, flexibility, resilience, and commitment to excellence for all our children.

Person	Role	Grade	School Site
Kelly Gangemi	Teacher	K	Argonaut
Cheri Barco	Teacher	1	Foothill
Tisha Pastega	Teacher	2	Foothill
Christie Nielsen	Teacher	2	Argonaut
Mary Roller	Teacher	3	Foothill
Sandy Waite Lopez	Teacher	4	Foothill
Lisa Green	Teacher	4	Saratoga
Mardi Kambish	Teacher	5	Argonaut
Molly Flanagan	Teacher	6	RMS
Karen Burse	Special Education	K-5/RSP	Foothill
Cassie Sprenger	Special Education	6-8/RSP	RMS
Joe Bosco	Principal	K-5	Foothill
Kelly Green	Principal	6-8	RMS
Roberta Zarea	Director of Educational Services		

Process & Timeline

* Spring 2014:
  * Preliminary review of programs
  * SCCOE Math Instructional Materials Faire
  * SCCOE *Math Evaluation Toolkit* Training
  * Training and researching programs
* Summer and Fall 2014:
  * Training and researching programs
* December 2014/January 2015:
  * Committee convenes: Evaluation Toolkit, District Lens, Framework
  * Intense evaluation of materials by teachers and administrators

Process & Timeline

* February – March 2015:
  * K-5 and 6-8 pilot instructional materials
  * Teacher, student surveys
  * Parent previews and opportunity for input
* April 2015
  * Committee makes data – driven decision for K-5 and 6-8 core curriculum recommendations
* April 28:
  * Committee makes recommendations to SUSD Board

Process & Timeline

* May 12:
  * Board votes on committee's recommendations for core curriculum in K- 5 and 6-8
* May – Summer 2015:
  * Professional development core training
* Fall 2015:
  * Math instructional materials in classrooms

Evaluation Criteria & Considerations

District Lens

CA Math Framework

Evaluation Toolkit

SUSD District Lens for Evaluation of Instructional Materials

* Parameters, priorities, and values, student/teacher/community needs:
  * Focus, coherence, rigor
  * Resources that challenge students, differentiation at all levels
  * K-5 program for coherence
  * Tight alignment between elementary and middle school, and middle and high school; plan for transitions
  * Middle school accelerated courses need to use HS approved materials
  * Communication, multiple strategies, collaboration, using math terms with fluency
  * Plan for parent support resources to foster parent involvement and homework support

What is the CA *Mathematics Framework*?

* Guide the field in implementing the CA CCSS-M
* Emphasize coherence across and within grade levels
* Integrate the Standards for Mathematical Practice and Standards for Mathematical Content
* Provide guidance on the higher mathematics course progression

Why did the committee use the *CA Mathematics Framework*?

* Underscores importance of **Focus, Coherence, Rigor**
* A focus on understanding addition, subtraction, multiplication, and division (the four operations) in K–5
* Building from whole numbers in K–2 to fractions in grades 3–5
* Expectations of fluency with whole numbers and fractions in K–5
* A focus on ratio, rates, percent, and statistics and probability in 6–8
* Extending operations with fractions to rational numbers in 6–8
* Expectations of fluency with expressions and linear equations 6–8

What's in the *CA Mathematics Framework?*

* Introduction
* Overview of *Standards* Chapters
* Grade-level chapters, TK–8
* Higher mathematics chapters by course
* Universal Access
* Instructional Strategies
* Supporting High-Quality Common Core Mathematics Instruction
* Technology in the Teaching of Mathematics
* Assessment
* Instructional Materials to Support the CA CCSS-M (including the evaluation criteria for the mathematics adoption)

CA Math Framework: "Instructional Materials to Support CCSS" Chapter

* Contains the "Criteria for Evaluating Mathematics Instructional Materials for Kindergarten through Grade Eight," which was the basis for the January 2014 adoption

* Provides guidance to districts on adopting instructional materials for higher mathematics, including indicators of quality

* Outlines a process for local adoptions

View the CA *Mathematics Framework* at

http://www.cde.ca.gov/ci/ma/cf/draft2mathfwchapters.asp

What is the *Mathematics Instructional Materials Evaluation Toolkit*?

- Evaluative – outlines criteria and rubric for scoring each program
- Based on CDE Framework
- Based on the Math Progressions
- Based on CCSS Standards

Why is the *Mathematics Instructional Materials Evaluation Toolkit* important?

* Guides adoption committee through the adoption process.
* The Common Core State Standards for Mathematics do not alone raise achievement; this done by a skilled educator with appropriate curriculum.
* Curriculum materials are teachers' main source of content background and what teachers use on a daily basis to plan and deliver instruction.

What is in the *Evaluation Toolkit*?

* **Section 1:**
* Alignment to standards and progressions
* -Cluster, scope and sequence
* **Section 2:**
* Alignment to the (draft) Framework
* -Alignment to standards
* -Program Organization
* -Assessment
* -Universal Access
* -Instructional Strategies

All criteria from Sections 1 and 2 were equally weighted during the Evaluation of math curriculum.

Evaluation Toolkit: Alignment to Standards Criteria

* The mathematics content is correct, factually accurate…
* -Review various lessons
* -Is the content correct?
* -Correct definitions
* -Use of manipulatives
* -No mnemonics or tricks
* The materials include the standards for mathematical practice at each grade level or course
* Students and teachers spend the large majority of their time (approx. ¾) on major clusters
* Consistent progressions: materials are consistent with the progressions in the Standards.

Evaluation Toolkit: Program Organization Criteria

* How is the textbook set-up?
  - Standard/cluster
  - Organized by clusters within units
  - Intervention (RtI)
  - Acceleration Components
  - Support Materials

Evaluation Toolkit: Assessment Criteria

* **General materials** and SBAC Specific:
  - Variety of assessments (formative)
  - Summative
  - Content and Practice Standards
  - Concept, computation, fluency and application
  - Acceleration and compression aspects
* General materials and **SBAC Specific:**
  - Claim #1 – assessment of concept
  - Claim #2 – assessment problem solving strategies
  - Claim #3 – assessment provides opportunity to construct a viable argument
  - Claim #4 – assessment through complex, real-world scenarios
  - Technology enhanced problems

Evaluation Toolkit: Universal Access Criteria

* "Students with special needs must be provided access to the same standards-based curriculum that is provided to all students…"
- Differentiation
- Correction for common misconceptions
- Specialized teaching methods / materials for students with special needs
- Strategies for English Learners
- Strategies for students with disabilities
- Alternate lessons for exceptional students (depth and complexity

View the *Mathematics Instructional Materials Evaluation Toolkit* at

http://goo.gl/8ROG1K

CCSS Mathematics Shifts

1: Focus: Teachers use the power of the eraser and significantly **narrow and deepen** the scope of how time and energy is spent in the math classroom. They do so in order to **focus deeply** on only the **concepts** that are **prioritized in the standards** so that students reach **strong foundational knowledge** and **deep conceptual understanding** and are able to **transfer mathematical skills** and understanding **across concepts and grades.**

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1: Focus strongly where the Standards focus

2: Coherence: Principals and teachers **carefully connect** the **learning within and across grades** so that, for example, fractions or multiplication spiral across grade levels and **students can build new understanding onto foundations** built in previous years. Teachers can begin to count on **deep conceptual understanding of core content** and build on it. Each standard is not a new event, but an **extension of previous learning.**

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2: Coherence: Think across grades, and **link** to major topics within grades

3: Fluency: Students are expected to have **speed and accuracy** with simple calculations; teachers structure class time and/or homework time for students to **memorize**, through repetition, **core functions** (found in the attached list of fluencies) such as multiplication tables so that they are **more able to understand** and **manipulate more complex concepts.**

4: Deep Understanding: Teachers teach more than "how to get the answer" and instead support students' ability to **access concepts** from a **number of perspectives** so that students are able to see math as more than a set of mnemonics or discrete procedures. Students **demonstrate deep conceptual understanding** of **core math concepts** by **applying** them to **new situations** as well as **writing and speaking about their understanding.**

5: Application: Students are expected to use math and **choose the appropriate concept for application** even when they are not prompted to do so. Teachers provide opportunities at all grade levels for students to **apply math concepts in "real world" situations.** Teachers in **content areas** outside of math, particularly science, ensure that students are using math – at all grade levels – to **make meaning of and access content.**

6: Dual Intensity: Students are **practicing and understanding.** There is more than a balance between these two things in the classroom – both are occurring with intensity. Teachers create opportunities for students to participate in "drills" and make use of those skills through **extended application of math concepts.** The amount of time and energy spent **practicing and understanding** learning environments is driven by the specific **mathematical concept** and therefore, varies throughout the given school year.

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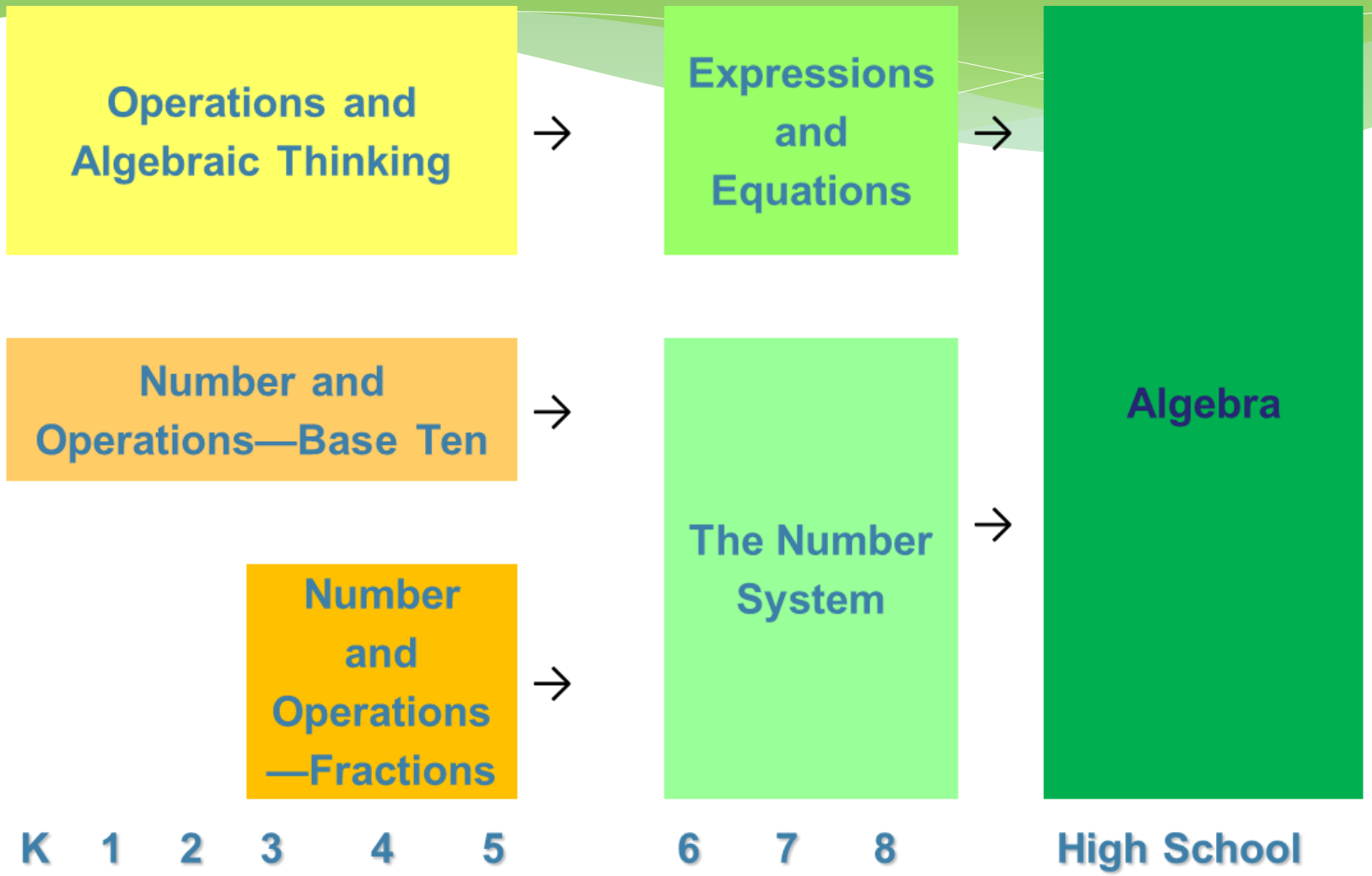
3: Rigor: Require **fluency, application,** and **deep understanding**

Focusing Attention within Number and Operations



Standards for Mathematical Practice

Make sense of problems and persevere in solving them.

Reason abstractly and quantitatively.

Construct viable arguments and critique the reasoning of others.

Model with mathematics

Use appropriate tools strategically.

Attend to precision.

Look for and make use of structure

Look for and express regularity in repeated reasoning

Core Math Programs Reviewed

Math Programs Reviewed

Elementary:

* Math in Focus: Singapore Math (HMH)
* Math Expressions (HMH)
* Everyday Math (MH)
* Engage NY (Eureka)
* Go Math (HMH)

Middle School:

* Big Ideas Math (HMH)
* Engage NY (Eureka)
* Go Math (HMH)

Finalists are in red

Publishers:
HMH: Houghton Mifflin Harcourt
MH: McGraw Hill
Eureka

Teachers' Evaluation of Elementary Math Programs Reviewed

Teachers thoroughly reviewed 7 programs:
Math Expressions, Math in Focus, My Math, enVision, Everyday Math, Engage NY, and Go Math. 4 programs rose to the top (below).
Of those, the top 3 were piloted**.

Math in Focus (Singapore)	Everyday Math**	Engage NY**	Go Math**
• Average score 2.9 on 27 criteria • Strengths: bar model • Weaknesses: not CCSS-aligned, not enough time on major cluster standards, lack of depth and rigor, not enough practice problems	• Average score 3.9 on 27 criteria • Strengths: games and activities, CCSS-aligned • Weaknesses: program organization, lack of coherence, assessments	• Average score 4.4 on 27 criteria • Strengths: CCSS-aligned, depth, rigor, coherence, • Weaknesses: workbooks unengaging; time to learn program, plan PD, and design parent support system; requires differentiated support	• Average score 4.1 on 27 criteria • Strengths: CCSS-aligned, program organization, teacher usability, online resources • Weaknesses: low depth and rigor, consumables

Evaluation of 6-8 Programs Reviewed

Teachers thoroughly reviewed 5 programs:
Big Ideas, Agile Mind, Go Math, California Math, Engage NY. Two programs rose to the top and those 2 programs were piloted.

Big Ideas

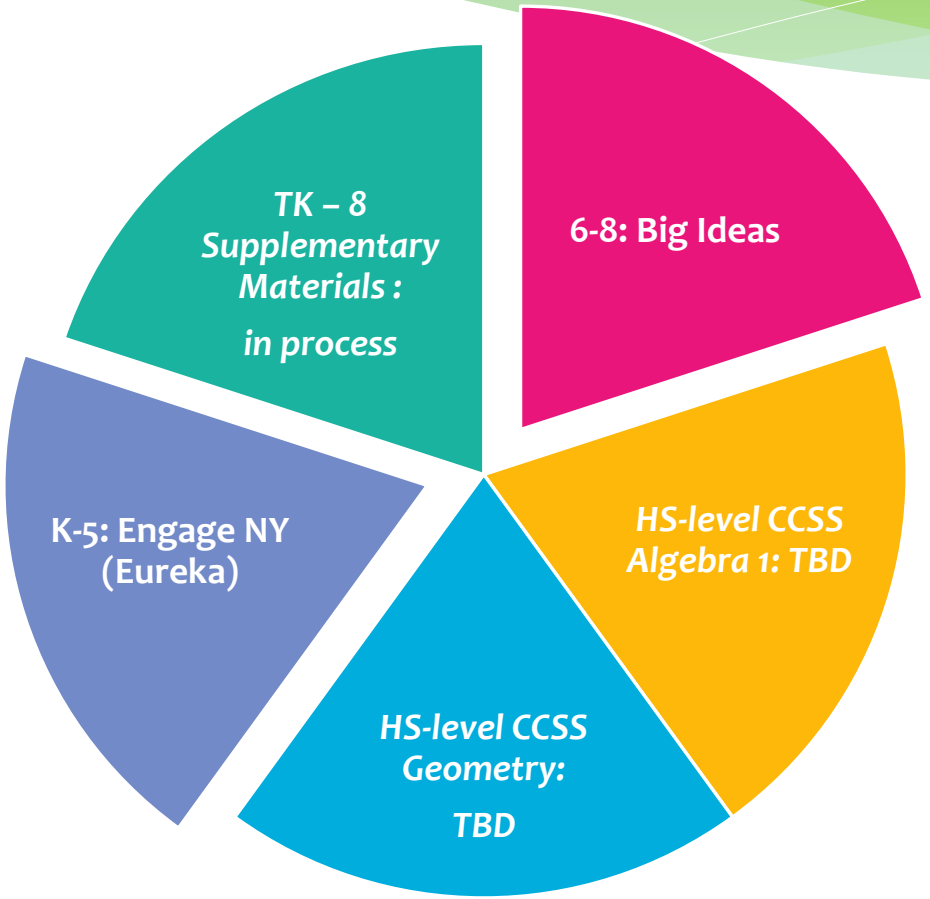
- Average score 4.5 on 27 criteria
- Strengths: CCSS- aligned, focus, coherence, digital resources, aligns with SHS math curriculum, multiple pathways in middle school (regular, compacted, advanced)
- Weaknesses: need manipulatives

Engage NY

- Average score 4.0 on 27 criteria
- Strengths: CCSS- aligned, depth, rigor, coherence,
- Weaknesses: workbooks unengaging; time to learn program, plan PD, and design parent support system, difficult to use for compacted/ accelerated courses in middle school

Core Program Instructional Materials Recommendations

SUSD Math Curriculum Status & Recommendations



What is Engage NY/Eureka Math?

* Developed by Common Core, Inc, a Washington DC-based not-for-profit organization
* Provides an online platform for housing comprehensive mathematics curriculum
* Enhanced with student materials, professional development tools, dashboard functionality, and printed curriculum
* Based on the theory that math knowledge is conveyed most clearly and effectively when taught in a sequence that follows the "story" of math:
  * A Story of Units (Pre k – 5)
  * A Story of Ratios (6-8)
  * A Story of Functions (9-12)

Test Date		Pre-Kindergarten	Kindergarten	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	
9/6/12	20 days	M1: Analyze, Sort, Classify, and Count up to 5 (45 days)	M1: Count Numbers to 10 (43 days)	M1: Sums and Differences to 10 (45 days)	M1: Sums and Differences to 20 (10 days)	M1: Properties of Multiplication and Division and Solving Problems with Units of 2–5 and 10 (25 days)	M1: Place Value, Rounding, and Algorithms for Addition and Subtraction (25 days)	M1: Place Value and Decimal Fractions (20 days)	20 days
10/10/12	20 days				*M2: Relate Addition and Subtraction to Length (12 days)				
11/8/12	20 days	M2: Analyze, Compare, Create, and Compose Shapes (15 days)	M2: 2D and 3D Shapes* (12 days)	M2: Foundations of Place Value: Addition and Subtraction of Numbers to 20 in Problem Situations (35 days)	M3: Place Value, Counting, and Comparison of Numbers to 1000 (25 days)	M2: Problem Solving with Units: Place Value, Metric Weight, Liquid Volume, and Time (25 days)	*M2: Unit Conversions (7 days)	M2: Multi-Digit Whole Number and Decimal Fraction Operations: Reasoning about Partial Products and Quotients (35 days)	20 days
12/11/12	20 days	M3: Count and Answer "How Many" Questions up to 10 (50 days)	M3: Comparison with Length, Weight, Liquid Volume, and Numbers to 10 (38 days)		M4: Addition and Subtraction of Numbers to 100 with Word Problems to 100 (35 days)	M3: Multiplication and Division with Factors of 6, 7, 8, and 9 (25 days)	M3: Using Place Value Understanding and Properties of Operations to Perform Multi-Digit Multiplication and Division (43 days)	M3: Addition and Subtraction of Fractions (22 days)	20 days
1/17/13	20 days			M3: Ordering and Expressing Length Measurements as Numbers (15 days)	M5: Addition and Subtraction of Numbers to 1000 with Word Problems to 100 (24 days)	M4: Multiplication and Area (20 days)	M4: Addition and Subtraction of Angle Measurements of Planar Figures (20 days)	M4: Multiplication and Division of Fractions and Decimal Fractions (38 days)	20 days
2/15/13	20 days	M4: Describe and Compare Length, Weight, and Capacity (35 days)	M4: Number Pairs, Addition and Subtraction of Numbers to 10 (47 days)	M4: Place Value, Comparison, Addition and Subtraction of Numbers to 40 (35 days)	M6: Foundations of Multiplication and Division (24 days)	M5: Fractions as Numbers on the Number Line (35 days)	M5: Order and Operations with Fractions (45 days)		20 days
3/22/13	20 days			M5: Identify, Compose, and Partition Shapes (15 days)	M7: Comparison, Addition and Subtraction with Length, Money, and Data (30 days)	M6: Collecting and Displaying Data (10 days)		M5: Addition and Multiplication with Volume and Area (25 days)	20 days
4/29/13	20 days	M5: Write Numerals to 5, Addition and Subtraction Stories, Count to 20 (35 days)	M5: Numbers 10-20, Counting to 100 by 1 and 10 (30 days)	M6: Place Value, Comparison, Addition and Subtraction of Numbers to 100 (35 days)		M7: Word Problems with Geometry and Measurement (40 days)	M6: Decimal Fractions (20 days)	M6: Graph Points on the Coordinate Plane to Solve Problems (40 days)	20 days
5/28/13	20 days		M6: Analyze, Compare, Create, and Compose Shapes (10 days)		M8: Recognizing Angles, Faces, and Vertices of Shapes, Fractions of Shapes, Time (20 days)		M7: Exploring Multiplication (20 days)		20 days

6/26/13 Note that date approximations are based on a first student day of 9/6/12 and last day of 6/26/13 with a testing date of approximately mid-late April.

Approx date grades

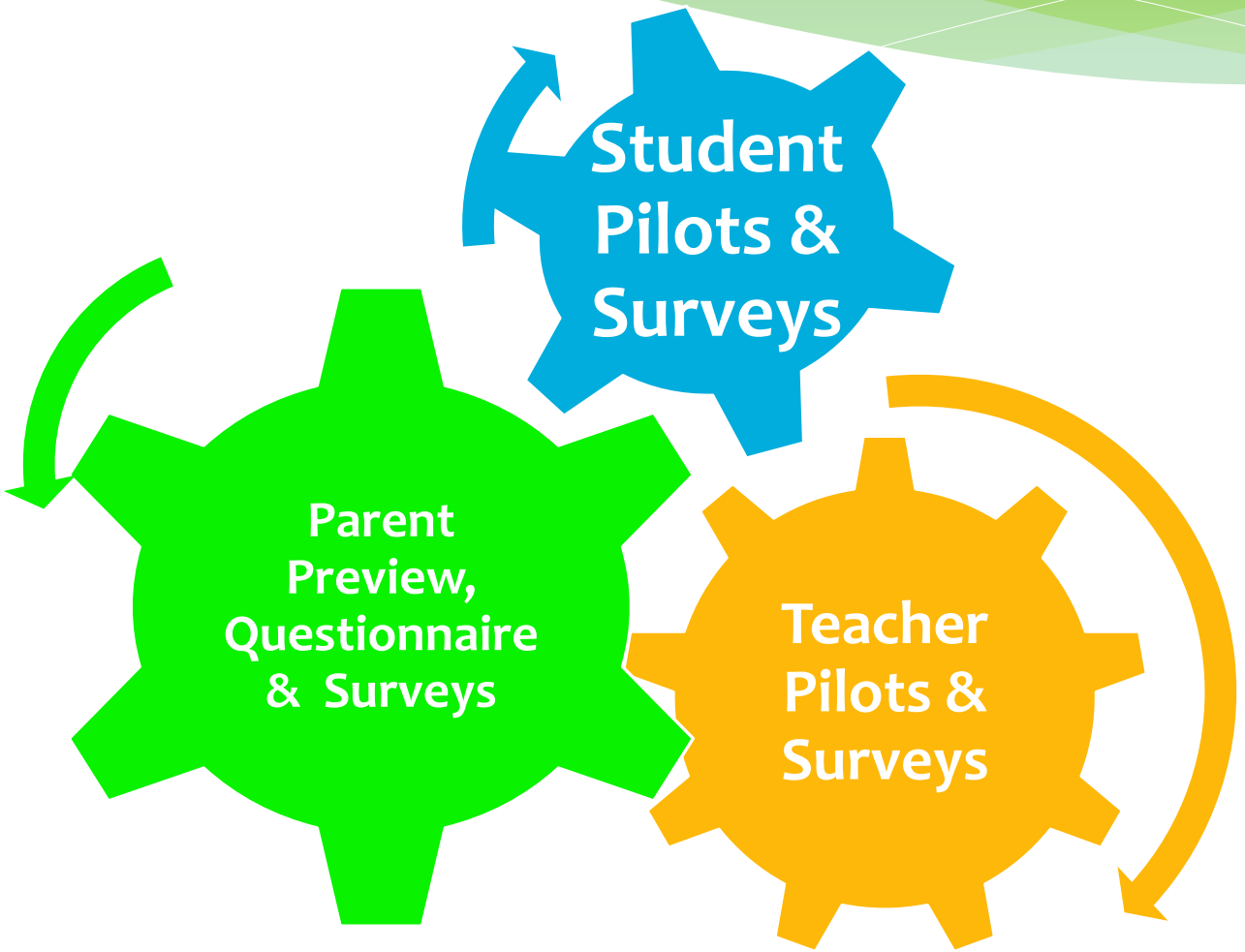
Key:	Geometry	Number	Number and Geometry, Measurement	Fractions

*Please refer to grade-level descriptions to identify partially labeled modules and the standards corresponding to all modules.

What is Big Ideas Math?

* CCSS- and Standards for Mathematical Practice-aligned
* Multiple pathways in middle school math (regular, compacted, advanced)
* Balance of engaging activities, discovery, direct instruction
* Essential questions
* Personalized learning

Stakeholder Input



Student Survey Data – Engage NY
(representative sample)

Best thing about the program:

* Challenging
* Fun, easy
* Very deep
* Sprints
* Learning math in a different way
* Really makes you think
* Online problems
* Journal
* Very organized

Least favorite thing:

* You have to show your work
* Sometimes confusing
* Sometimes hard
* No color
* Really hard
* Takes a lot of time
* No textbook

Student Survey Data – Engage NY

Were you challenged at your level?

Were you able to do your HW independently?

Parent Survey Data – Engage NY (representative sample)

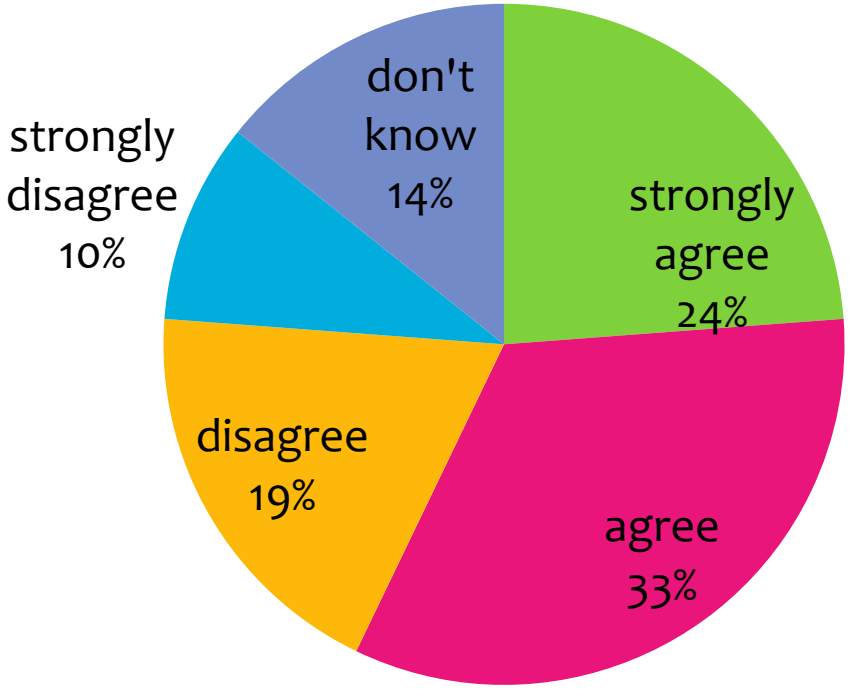
* I dislike the new method of teaching math strongly. It turned every math problem into a word problem, which focused on reading the problem, rather than being good at the arithmetic piece of math.
* The joy of math at 2nd grade level is suppose to be about the ability to quickly work through addition/subtraction/multiplication. The speed and accuracy to complete problem sets will be beneficial in the long run.
* The engageny.org supplemental materials have been useful and easy to google when helping my child with homework a few times when things have not been clear.
* I still feel the Engage NY math program is not challenging enough and falls short from other programs in various countries. For 2nd graders, what is currently taught should have already been covered/mastered in 1st grade.
* I wish I was presented with this math program when I was growing up! I love how they are able to envision math concepts and apply it to daily concepts. Note that the teacher, Mrs. Camp, is absolutely amazing her drive and passion is also key, truly loved indeed!

Parent Survey Data – Engage NY (representative sample)

* I have seen my 3rd grade daughter flourish in an extraordinary way of cementing mathematical concepts. Only wish I had experienced math as my daughter has! My son very much enjoys engage NY with challenge. I like it very much, too. It provides better, enough and various practice so that students can understand definitions deeply. It is not too easy to lose challenge and not too hard to lose interest. Even many parents admire that my son is in pilot classroom. I strongly suggest to chose engage NY as SUSD Math Instructional Materials for K-5.
* I feel the instructions for the homework are not clear. I am able to help my child solve the math equations, but not confident that I understand all the details required for a complete answer. It seems some additional level of instruction is given in class on how to answer the questions fully, but that detail is not clear in the HW instruction.

Parent Survey Data – Engage NY

I have enough understanding of the program to assist my child with HW:



Student Survey Data – Big Ideas
(sample representative)

Best thing about program:

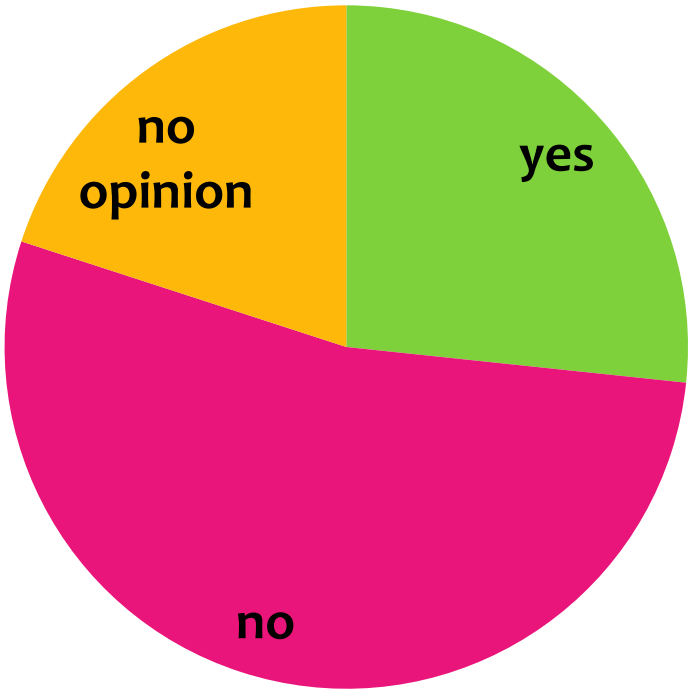
* I could do it online.
* Clear explanations
* Awesome comics
* Definitions and problems are clear, easy to understand

Least favorite thing:

* Program went over the same things often
* Some problems don't make sense
* Examples are too easy

Student Survey Data – Big Ideas

Were you challenged at your level?



Were you able to do your homework independently?

Programs' Strengths & Challenges

Engage NY: Program Strengths
(according to teachers, parents, students)

* Teaches math as a story – builds students' knowledge logically to achieve deep understanding
* Good feedback from substitute teachers about usability
* Exit tickets allow daily monitoring of student work
* Content from earlier modules incorporated into word problems in later modules
* Goes along with concepts and vocabulary of DreamBox, MARS, and Khan Academy
* Students and teachers love the Sprints, which cover more than basic facts
* Concepts chunked and mastered before going to another concept
* Loads of videos online for extra help, teaching training, and parent support
* Supplemental online resources are good, useful, easy to find

Engage NY: Program Strengths
(according to K-8 teachers, parents, students)

* Rigorous, focus on cluster standards, coherent organization of concepts
* Students can download and print HW
* Rubrics are easy to use; answers are on rubric; students and parents can see what expected answer should have included
* Interactive drills, mental math, efficient games and concept worksheets
* Sprints = fluency activities and physical exercise
* Online assessments can be modified as needed
* Test questions directly keyed to standards
* Uses real world problems; DOK levels 1-4
* Requires students to explain reasoning and understand why
* Very well aligned and meets standards

Engage NY: Program Challenges (according to K-8 teachers, parents, students)

* Some students are frustrated to have to explain work in so many ways – too much explaining "why" is difficult for EL students
* Homework tear-outs in printed material were initially a problem
* Homework may take a long time, needs instructions for parents
* Lessons are too long if you do the whole thing
* Could lose the class if you don't skip to the heart of the lesson – takes awhile for teachers to be able to do this
* No examples on student worksheets or homework
* Sometimes parents have a hard time figuring out how to help with homework
* HW/tests sometimes don't measure student understanding
* No manual/book for student/parent reference
* Lots of word problems
* Lower performing and EL students really struggled and had difficulty keeping up
* Need for differentiation

Big Ideas: Program Strengths
(according to 6-8 teachers, parents, students)

* Coherence
* Integration of Standards
* Standards of Mathematical Practice
* Conceptual Development
* Collaborative Group Activities
* Conceptual Problems & Practice
* Technology-based Journals and Games
* Online Assessments
* Assessments are differentiated (3 options)
* Editable to provide adequate questions based on differentiated supplementary material
* DOK 3 and DOK 4 level

Big Ideas: Program Challenges
(according to 6-8 teachers, parents, students)

* Differentiated Instruction
* Problems with Multiple Solutions
* Manipulatives
* Online Assessments – Primarily Multiple Choice
* Navigation of Technology not Always Intuitive
* Most assessments need to be modified slightly

Professional Development

Professional Development

Eureka/Engage NY

* Core training
* "Just-in-time" Professional Development webinar series
* Electronic Dashboard
* Eureka/Great Minds Regional Institutes
* SCCOE Support & Collaborative District Partners

Big Ideas

- Customized workshops
- "Just-in-time" Professional Development webinars
  Customized workshops
- SCCOE Support & Collaborative District Partners

Estimated Expenditures

2015-16 Estimated Expenditures – Engage NY/Eureka

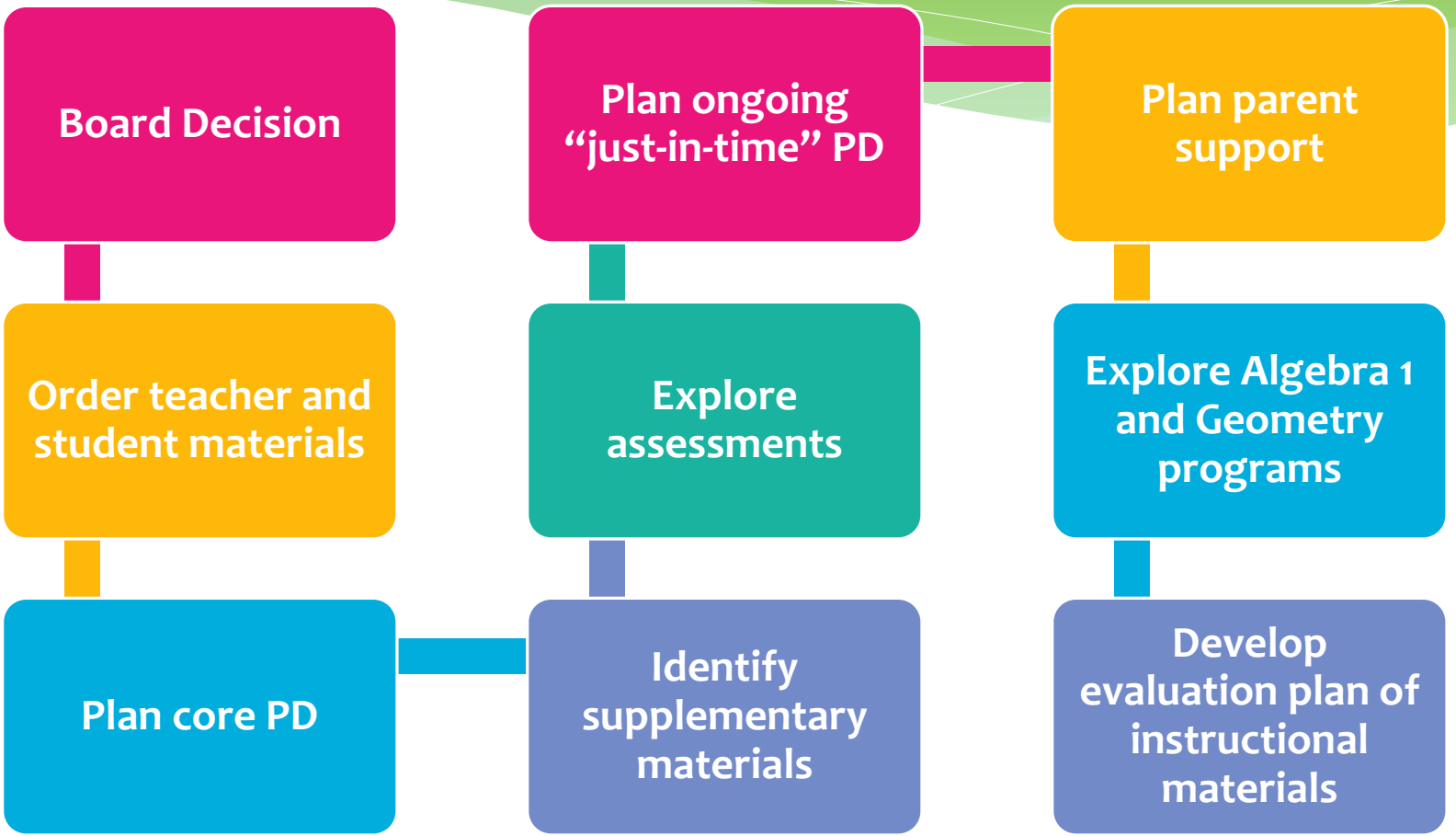
Expenditure	Estimated Cost
Printed Teacher Modules	$100 per set x 60 = $6000
Printed Student Books (annual cost)	$45 per set x 1225 = $55,000
Class Manipulative Kits (if purchased – more than likely we will inventory our current materials and purchase only the specific manipulatives which are needed)	Average grade level kit varies (avg $300)
PD: SCCOE Institutes and PD on SLCT Days	$10,000
PD: Electronic Dashboard	$120 per teacher x 60 = $7200
PD: Grade level webinar series – "Just in time" PD	$230 per teacher x 60 = $13800

2015-16 Estimated Expenditures – Big Ideas

Expenditure	Estimated Cost
Big Ideas 6 – 8 Teacher Manuals	$150 per teacher
Big Ideas 6 – 8 Student Books	Approximately $11 per student for 8 years
Big Ideas 6 – 8 Professional Development	

Implementation

Implementation Plan



Next Steps

* Coordinate ongoing support plan for professional development and “just-in-time” opportunities of differentiated math professional learning for our teachers
* Build administrator and teacher capacity to effectively use the adopted instructional materials and address challenge areas
* Build parent capacity, develop parent support resources, conduct parent workshops to introduce the programs
* Develop and provide workshops for parents on effective use of instructional materials
* Plan for training of new teachers and substitute teachers
* Identify extension/support supplementary materials to enhance core curriculum and differentiated instruction

Next Steps

* Plan transition between elementary and middle school & middle and high school – vertical articulation
* Review and pilot H.S. Algebra and H.S. Geometry programs for accelerated courses
* Continue to explore assessment resources
* Develop recommendations for mathematics supplementary materials
* Plan for evaluation of effectiveness of program from various stakeholders (teachers, administrators, parents, students)
* Continue to build collaborative opportunities with other districts to optimize PD and resources

Other Districts

District	K-5	6-8
Palo Alto Unified	Everyday Math	locally developed materials
Los Gatos Union	My Math	Go Math
Los Altos	enVision	Engage NY, Georgia (using Pearson Scope and Sequence to build own curriculum)
Cupertino	Go Math	College Preparatory Mathematics (CPM)
Campbell Elementary	Engage NY	Engage NY
Mountain View Whisman	Piloting Engage NY and Go Math	Piloting Engage NY and Go Math
Sunnyvale	K-2: enVision and Investigations 3-5: Expressions	Carnegie Learning Geometry: Holt
Hillsborough	Everyday Math	Piloting Big Ideas

Recommendation

The SUSD Mathematics Instructional Materials Adoption Committee recommends that the SUSD Board of Education approve Engage NY Mathematics for K-5 and Big Ideas for 6 – 8 core mathematics instructional materials for the 2015 – 2016 school year.