



Math Adoption
Board Presentation
04.25.2024





Welcome and Introductions

- ❑ Jason Brockmeyer, Director of Innovation, Community Outreach and Special Projects
- ❑ Sathya Seigel, Elementary Math Teacher Teacher on Special Assignment
- ❑ Karie Mullassery, Secondary Math Teacher on Special Assignment



Outcomes

- ❑ Revisit SSFUSD's Math Vision
- ❑ Review Current th Math Student Learning Results
- ❑ Share Math Adoption Process and EDS curriculum recommendation



District Goals

LCAP GOAL 1

Academic Achievement

The district will provide a high quality curricular program for students that will raise student proficiency on the California Common Core State Standards as measured by overall academic achievement on state assessments, CA Dashboard results, interim assessment data and ELPAC/Reclassification data.



LCAP GOAL 4

Special Education

The district will provide high quality curricular programs for students with IEPs that will raise student engagement in school and proficiency on the California Common Core State Standards as measured by overall academic achievement on state assessments, and engagement rates.

LCAP GOAL 2

Professional Development

Identified classified staff, certificated and administrative staff will participate in professional development to create capacity and expertise in curriculum program implementation based on the development of scope and sequence as measured by walkthrough observations and other evidence (artifacts and student work).

LCAP GOAL 3

Student, Parent & Community Engagement

Improve parent school engagement through an increase in participation in site and district parent groups such as SSC, PTSA, DELAC, ELAC, AAPAC as well as in other parent meetings as measured by attendance sign in sheets.

District Priorities

A) Improve Curriculum, Instruction & Assessment

B) Bolster Professional Learning and Collaboration

C) Strengthen Leadership Capacity

SSFUSD

STRENGTHENING OUR SYSTEMS

the
GAS TANK
BENCHMARKS
checking student progress toward goals.

HOW CAN WE LEVERAGE DATA?

the
STEERING WHEEL
INSTRUCTION
guiding our learning objectives
ENGAGES US + TAKES US FORWARD

the
GPS
NAVIGATION
our goals
LCAP, DEPT., SITE, TEAM, TCHR.

FFME -
A PROCESS TO DETERMINE WHAT TOOL, PRACTICE, or SERVICE WILL HELP US SOLVE OUR IDENTIFIED NEED

WHAT IS OUR ACTION PLAN?

HOW DO WE REFLECT + RELENTLESSLY FOLLOW UP?

the
SEATS
CURRICULUM
defines the skills to be taught
STANDARDS, RIGOR, RELEVANCE



the
ENGINE
PERFORMANCE MANAGEMENT MEETINGS
showcasing data + progress of
ILTs, PLCs, DEPT. MEETINGS

Learn
Impact
Navigate
Thrive

the
WHEELS
SYSTEMS of ASSESSMENT
sets the pace

WHAT QUESTIONS HELP US DETERMINE ROOT CAUSES of PERFORMANCE?

EQUITY

the
MIRRORS
PROFESSIONAL LEARNING SYSTEM
reflecting + growing in our professional practices



SSFUSD Math Vision



SSFUSD Math Vision

Our math classrooms will **provide equitable support and opportunities to ensure that all students can succeed.** We will foster a community of lifelong learners who collaborate effectively, think independently and critically, take risks, and persevere through challenges and mistakes.



2023 California Math Framework

This framework takes the stance that all students are capable of accessing and achieving success in school mathematics in the ways envisioned in the standards. Thus, mathematical power is not reserved for a few, but available to all.



Expected Shifts

Figure 2.5 Beliefs About Teaching and Learning Mathematics



Unproductive beliefs	Productive beliefs
Mathematics learning should focus primarily on practicing procedures and memorizing basic number combinations.	Mathematics learning should focus on developing understanding of concepts and procedures through problem solving, reasoning, and discourse.
Students need only to learn and use the same standard computational algorithms and the same prescribed methods to solve algebraic problems.	All students need to have a range of strategies and approaches from which to choose in solving problems, including, but not limited to, general methods, standard algorithms , and procedures.
Students can learn to apply mathematics only after they have mastered the basic skills.	Students can learn mathematics through exploring and solving contextual and mathematical problems.

Source: NCTM, 2014b.



Strategic Plan

FOCUS ON EXCEPTIONAL SCIENCE & MATH INSTRUCTION AT ALL GRADE LEVELS

SCHOOL YEAR 2024-25

*To do that, we'll weave together several initiatives
with a focus on science and math:*

- Roll out new science and math curricula, and train leaders and staff on what exceptional instruction looks like using these curricula
- Build a bank of high-quality instructional strategies
- Continue our Collaborative Inquiry Cycles at schools, so we can reflect on what is working instructionally, and where/how we can adjust
- Strengthen instructional leadership & coaching at our schools

Exceptional Math Instruction
Roll out new science and math curricula and train leaders and staff on what exceptional instruction looks like using these curricula.



Math Learning Data



2022-2023 CAASPP Results with Year over Year Growth

Elementary School	Met or Exceeded 21/22	Met or Exceeded 22/23
Buri Buri	55%	65% ↑
Junipero Serra	49%	50% ↑
Los Cerritos	36%	28% ↓
Ponderosa	45%	49% ↑

Elementary School	Met or Exceeded 21/22	Met or Exceeded 22/23
Martin	22%	23% ↑
Monte Verde	70%	79% ↑
Skyline	58%	51% ↓
Spruce	29%	26% ↓
Sunshine	29%	24% ↓

KEY	
0% to 49%	
50% to 79%	
80% - 100%	



2022-2023 CAASPP Results with Year over Year Growth

Middle School			High School		
School	Met or Exceeded 21/22	Met or Exceeded 22/23	School	Met or Exceeded 21/22	Met or Exceeded 22/23
Alta Loma	35	32 ↓	Baden	0%	0% →
Parkway Heights	21%	23 ↑	El Camino	31%	38% ↑
Westborough	56%	56% →	S. San Francisco	26%	25% →

KEY	
0% to 49%	
50% to 79%	
80% - 100%	



2022-2023 CA Results by Subgroup

School	Overall	Hispanic or Latino	White	Asian	Filipino	Socio Econ Dis.	Not Socio Econ Dis	English Only	English Learners	Student w/ Disabilities	Parent H.S. Grad	Parent College Grad
Elementary (5th)	40%	25%	79%	70%	59%	24%	60%	56%	10%	11%	25%	62%
Alta Loma	32%	17%	34%	65%	44%	23%	40%	48%	0%	7%	18%	46%
Parkway	23%	19%	18%	45%	56%	32%	29%	48%	4%	5%	19%	40%
Westborough	56%	32%	53%	89%	54%	56%	61%	64%	14%	16%	32%	65%
El Camino	38%	23%	49%	70%	56%	30%	41%	39%	N/A	6%	20%	49%
S. San Fran	25%	13%	6%	71%	41%	13%	36%	36%	0%	5%	14%	35%

KEY
0% to 15%
16% to 30%
31% - 49%
50% to 79%
80% - 100%



SSFUSD CA Multi-Year Results

CA Results Multi - Year Results					
	14/15	18/19	20/21	21/22	22/23
5th	35	43	33	38	46
8th	50	41	36	38	35
H.S.	33	32	40	27	30



Access and Opportunity

*If the goal is to open mathematics pathways to **more students** and give greater challenge to high achieving students to develop broader proficiency and long-term interest in quantitative fields, **then this framework recommends reshaping the content that is offered to students—the way it is taught, and the organization of students learning the content...***

(2023 California Math Framework *Chapter 9*)



Elementary and Secondary Math Curricula Adoption Update



Math Landscape Analysis

Nov 2022- Begin Landscape Analysis

Goal

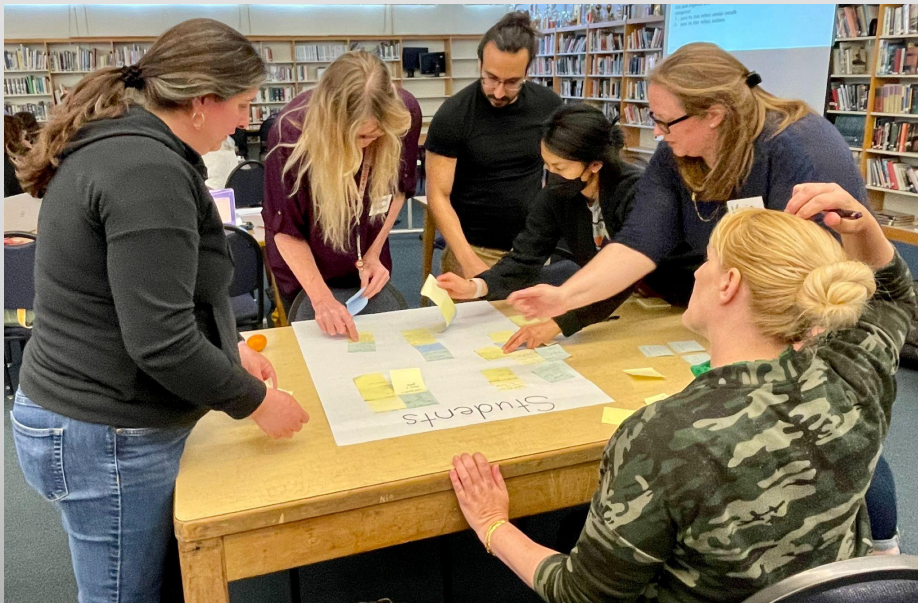
By May 2023, SSFUSD will complete a Landscape Analysis with Student Achievement Partners to learn about the district and our readiness to adopt math curricula that is culturally responsive-sustaining, linguistically sustaining, and aligned to standards and shifts. This process will help us learn where we have strengths and areas we can improve, to be ready to adopt and implement high-quality instructional materials that meet the needs of our learners.

Team Members

Elementary Staff	Middle School Staff	High School Staff	Community Members
<i>Michelle Collins (Pondo)</i> <i>Kerry Cianciarulo (Buri)</i> <i>Rebecca Fox (Skyline)</i> <i>Gabby Stanton-Fischer (Pondo)</i> <i>Julie Calleja (JS)</i> <i>Mary Musallam (MV)</i> <i>Leslie Hazelwood (Spruce)</i> <i>Gladys Fernandez (LC)</i> <i>Maureen McWard (Buri)</i>	<i>Gabby Cisneros (ALMS)</i> <i>Miranda Hahn (ALMS)</i> <i>Ivan Szeto (PHMS)</i> <i>Lisa Cresci (PHMS)</i> <i>Liliana Cervantes (PHMS)</i> <i>Sue Milwee (WMS)</i> <i>Angela Saelaw (WMS)</i>	<i>Martin Wai (SSFHS)</i> <i>Stephanie Andrews (SSFHS)</i> <i>Aaron Haffner (ECHS)</i> <i>Veronica Culpepper (ECHS)</i>	<i>Joanne dela Cruz</i> <i>Kim Bambao (SMCOE)</i> <i>Carlos Bautista (Middle College)</i>



Math Landscape Analysis

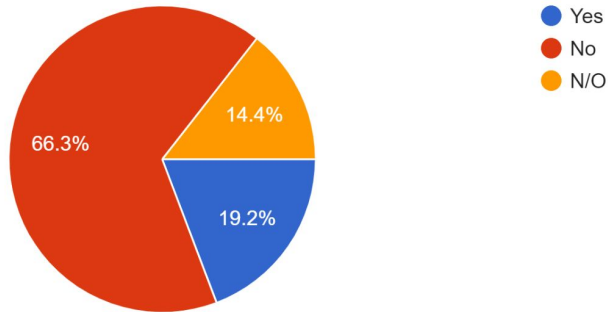


Timeline	
Meeting Link:	
Date	Purpose
✓ January 30 Virtual	To establish our team, to understand what we want to learn, and begin to plan for data collection.
✓ February 22, 2023 3:30-5pm Virtual	To review the draft of the data collection plan, provide feedback and craft survey and interview questions.
✓ Feb/March	Data collection (various days and times, more scheduling info coming soon)
✓ April 26, 2023 2:45-5:15 SSFHS lic ✓ April 27, 2023 3:45-5:15 SSFHS Lic	Analyze Results
✓ May 11th 3:30-5:30 Virtual https://sfusd-org.zoom.us/j/9678351609?pwd=TWdCcnllUERWUUK2RW5uVElQKk1CQT09	Determine Priorities



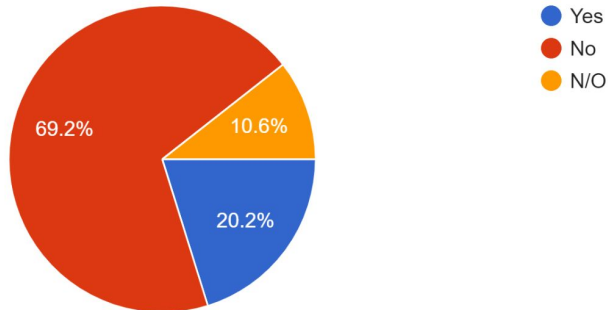
Key Data from Learning Walks

The instruction provides opportunities for students to demonstrate understanding of the math of the lesson, in a variety of ways, including providing students feedback to focus their attention on sense making, affirming evidence of mathematical progress, and providing students opportunities to revise work



The instruction counters traditional math structures of individualism and competition by structuring the doing of mathematics through collaboration, reinforcing a collectivist approach to mathematics

- Students participate in teamwork and collaboration while learning and doing mathematics and have opportunities to learn from and teach each other
- Students talk and ask questions about each other's thinking, in order to clarify or improve their own mathematical understanding



District-wide current conditions indicated the following growth areas:

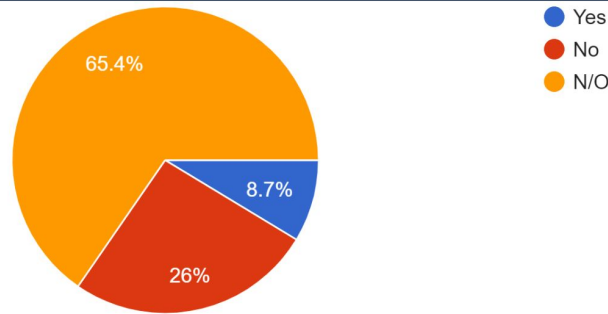
- ☐ Use of variety of methods to assess student progress & understanding
- ☐ Authentic student collaboration



Key Data from Learning Walks

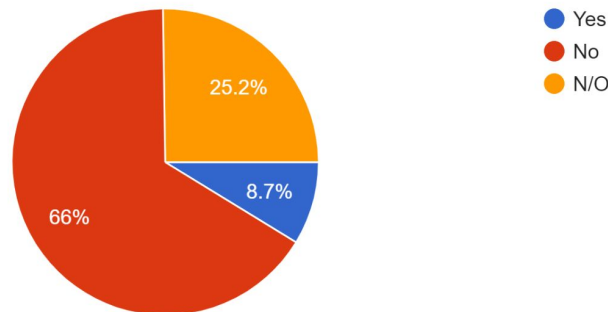
The instruction is contextualized in students' everyday lives, making real-life connections between mathematical concepts and the local community, cultures, and current events relevant to students' lives, including opportunities to examine and act on injustice and inequality

- Students see themselves in the lesson in positive ways that highlight strengths of their community, incorporating connections between home, community, and school as they do mathematics
- Students utilize mathematics as a tool to interrogate the world around them



The instruction includes intentional language learning opportunities for simultaneous mathematical meaning making and language development

- Students develop academic language and mathematics concepts simultaneously



District-wide current conditions indicated the following growth areas:

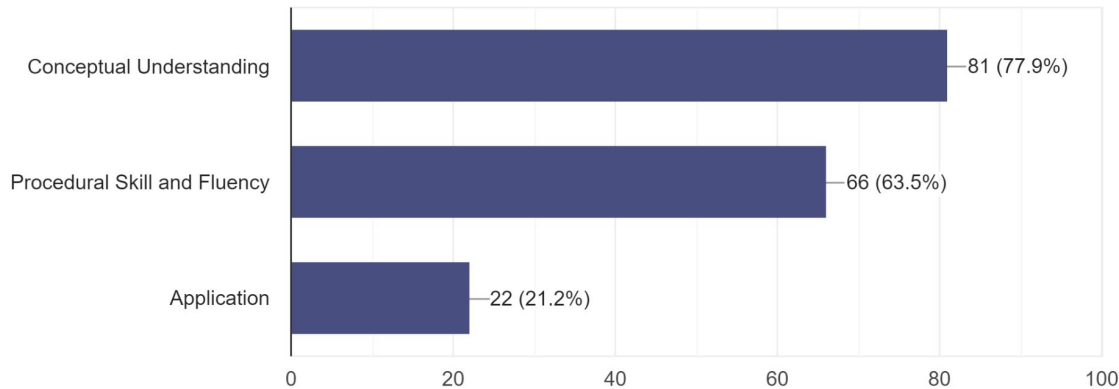
- ❑ Hands-on, relevant learning applicable to the real-world
- ❑ Sustained mathematical discussions that support language development and content understanding simultaneously



Key Data from Learning Walks

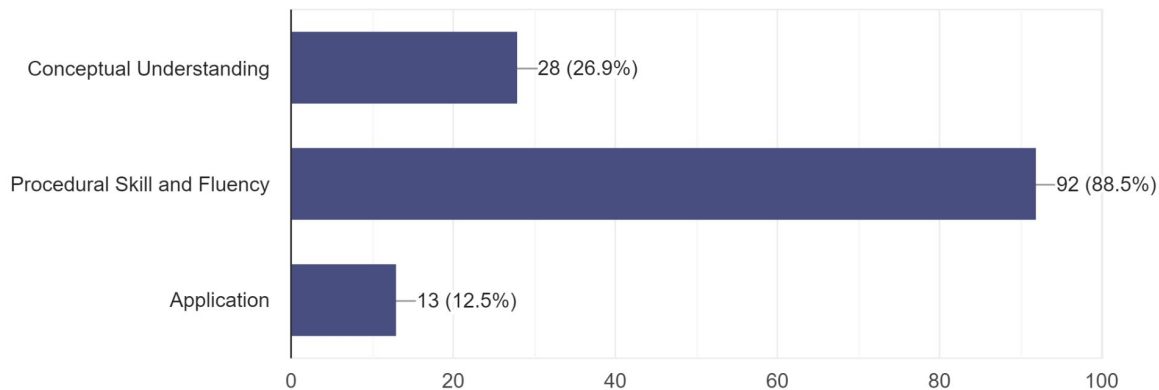
The aspect(s) of Rigor targeted in the standard(s) addressed in this lesson:

104 responses



The aspect(s) of Rigor targeted in this lesson:

104 responses



District-wide current conditions indicated the following growth areas:

- Focus on building conceptual understanding paired with procedural skills or fluency embedded in lessons
- Focus on real world application embedded in lessons



Curriculum Must Haves

From SSFUSD Pre-Adoption Priorities and Vision work

- A. A focus on growth mindset and building student confidence
- B. Intervention material & supports for all learners are usable and included in the curriculum (accessible for struggling students and challenging for advanced students)
- C. Authentic student collaboration (structures for sharing) is built into lessons
- D. Hands-on math lessons that can be applied to the real world and is relevant to students
- E. Math instruction builds conceptual understanding
- F. Curriculum has language supports built in for ELs/all learners
- G. Parents are communicated with around curriculum and how to support



May 2023 Adoption Begins

- ❑ By March 2024 the math adoption team will recommend to a math curriculum to adopt, that best supports SSFUSD students.
- ❑ [Elementary Math Adoption Plan](#)
- ❑ [Secondary Math Adoption Plan](#)





June 2023

2 Full Days at County Office reviewing curriculum

Pilot Curricula

Elementary	Middle	High
Imagine Learning Classroom	Imagine Learning Classroom	Imagine Learning Classroom
i-Ready	EnVision	Carnegie

[SSFUSD K-12 Math Adoption Rubric 2023 part 1](#)

[SSFUSD K-12 Math Adoption Rubric 2023 part 2](#)

Math Curricula - SSFUSD





Our Adoption Team

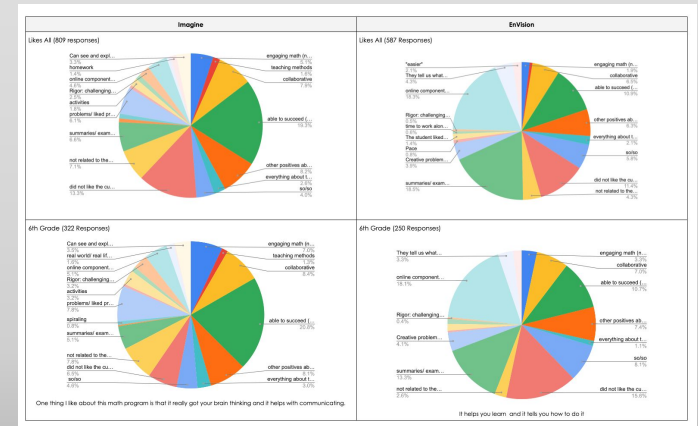
Elementary		Middle	High	
<p><u>Buri Buri:</u> Kerry Cianciarulo Allison Light Kaitlyn Mulligan</p> <p><u>Junipero Serra:</u> Julie Calleja Sara Taylor</p> <p><u>Los Cerritos:</u> Elizabeth Weatherly Stephanie Kuhn</p> <p><u>Martin:</u> Cheryl Vidales Lauren Fox</p>	<p><u>Monte Verde:</u> Kristen Searles Mary Musallam Mallory Ingram</p> <p><u>Skylene:</u> Kate Ballesteros Madeline Meyers</p> <p><u>Spruce:</u> Josephine Louie Leslie Hazelwood</p> <p><u>Sunshine Gardens:</u> Amany Hasan</p>	<p><u>Alta Loma:</u> Barbara Hahn Everardo Valdez Gaby Cisneros Grace Rhee Miranda Hahn Sophia Buscher</p> <p><u>Parkway Heights:</u> Beth Butchart Dan Hung Ivan Szeto Liliana Cervantes</p> <p><u>Westborough:</u> Angela Saelaw Haley Ng Steve Patane</p>	<p><u>Baden:</u> Francisco Lazalde</p> <p><u>El Camino:</u> Aaron Haffner Megan Connery Veronica Culpepper</p> <p><u>South San Francisco:</u> Joonsung Oh Martin Wai Stella Li Victoria Tullio</p>	<p><u>County:</u> Kim Bambao</p> <p><u>District Office:</u> Diana Yu Karie Mullassery Lindsay Hartman Sathya Seigel Shali Tapia</p>



Pilot Process

- Step 1 - Pilot curricula (7 weeks HS/12 weeks Elem & MS)
- Step 2 - Snapshot meetings to Identify Strengths & Challenges
- Step 3 - Collect & analyze student survey data (grades 6-12)
- Step 4 - Collect & analyze teacher survey data
- Step 5 - Analyze Strengths and Challenges data
- Step 6 - Collect recommendations with rationales
- Step 7 - District considers

- ❑ Data (Elementary, MS, HS)
- ❑ Recommendations & Rationales
- ❑ Possible Vertical Alignment
- ❑ Alignment to District Strategic Plan
- ❑ Alignment to Portrait of a Graduate



Step 8 - District makes recommendation



Recommended Curriculum

SSFUSD EDS recommends the adoption of Illustrative Mathematics published by Imagine Learning Classroom Kindergarten-Algebra 2



LEARN MATH FOR LIFE





Goals for 24/25

Goal: All K-12 math educators are trained and provided ongoing support in implementing Illustrative Math (ILC)

Possible Barriers

- ❑ Time: Professional learning, collaboration, planning, Instructional time
- ❑ Capacity and competing priorities
- ❑ Instructional shifts
 - ❑ Academic discourse
 - ❑ Collaborative, equitable and inclusive instructional strategies

Next Steps

- ❑ Finalize multi-year implementation plan
- ❑ Update Scope and sequence based on new curriculum
- ❑ Support teachers as needed with the expected shifts of a new curriculum
- ❑ Coordinate with site administrators to provide tailored support
- ❑ Create family communication (webinars) as needed



Needed for Success

All Math Educators

- ❑ Provide introductory training for all educators, including para-educators
- ❑ Conduct ongoing training sessions
- ❑ Schedule teacher release days as necessary
- ❑ Effectively utilize district-wide professional development days.
- ❑ Offer coaching sessions on an as-needed basis
- ❑ Ensure the availability of teaching materials





Needed for Success

Administrators

- Receive ongoing training
- Support site visits

Families/Students

- Receive ongoing communication
- Access to webinars and educational resources

All Stakeholders

- Patience and ongoing support
- Time



In Summary

Teachers who use the big ideas approach and teach mathematics by way of carefully designed, intriguing investigations **see their students come alive through exploration and discovery; students see what math can do and are motivated to go deeper** as they experience their own math capability. **However, since most teachers did not learn math this way, they need support to rethink math teaching and acquire skills and strategies that result in the changes in practice** vital to improving student learning.

2023 California Math Framework Chapter 10

