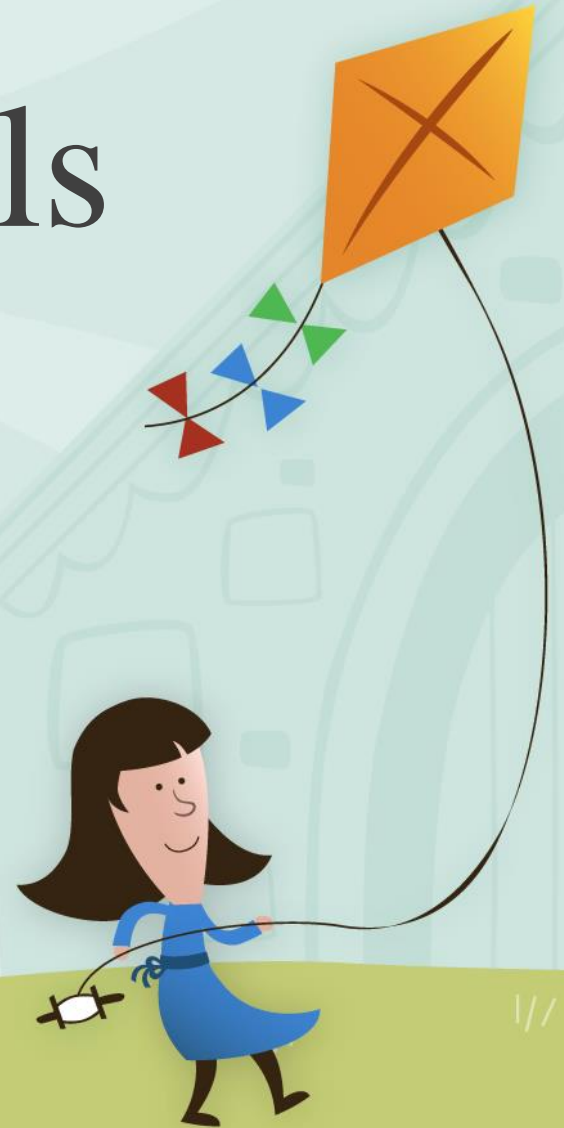


Elementary Math Instructional Materials Report

April 18, 2019



Collective Commitments

- We recognize that instructional materials are **just one part** of a comprehensive Math program
- We will **collaboratively construct** our complete CUSD Math program
- We will fully integrate **all aspects of the Math** standards and frameworks
 - **Focus**
 - **Coherence**
 - **Rigor**
- We will focus our instructional efforts on **differentiation and continuous improvement**
- We commit to a **multi-year process** that validates and extends teacher instructional expertise



Celebrating Our Journey

- April 2018 – Review of Elementary Math Materials & Decision to Pilot Bridges in Mathematics
- May 2018 - Recommendation of Pilot Process presented to TK-5 Teachers
- June 2018 – Finalized list of Strand and Village Pilot Teachers (13 Teachers - K, 2nd, 3rd, 4th, 5th)
- July 2018 – Bridges in Mathematics Pilot Materials Ordered
- August 17th – Pilot Teachers Publisher Training
 - Overview of Focus, Coherence and Rigor
 - Criteria for Evaluation identified
 - Bridges in Mathematics Curriculum & Instruction Overview
- December 12th – Joint Elementary Math Meeting
 - Pilot Teacher Feedback Forum
 - Q and A
- March 1st
 - Newport-Mesa Unified School District Visit (*adopted Bridges in May 2017*)
 - Director of Learning, 2 TOSAs, 4 Bridges Pilot Teachers
- March 11th – TK-5 Teacher Survey
 - Consensus Survey Completed by All TK-5 Teachers



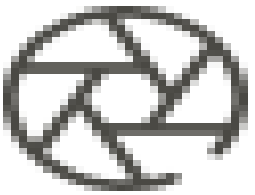
From the California Math Framework

Focus, coherence, and rigor, the underlying principles of the California Common Core State Standards for Mathematics (CA CCSSM), hold the promise of preparing all California students for college, careers, and civic life.



The Common Core Shifts in Mathematics



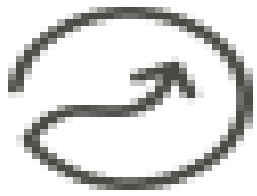


Focus

Materials must **focus** coherently on the Major Work of the grade in a way that is consistent with the progressions in the Standards.

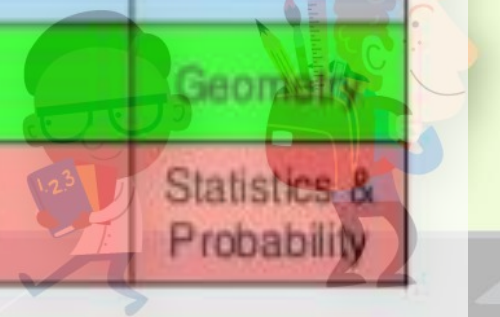
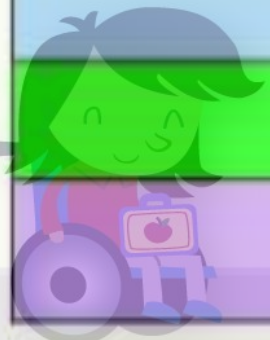
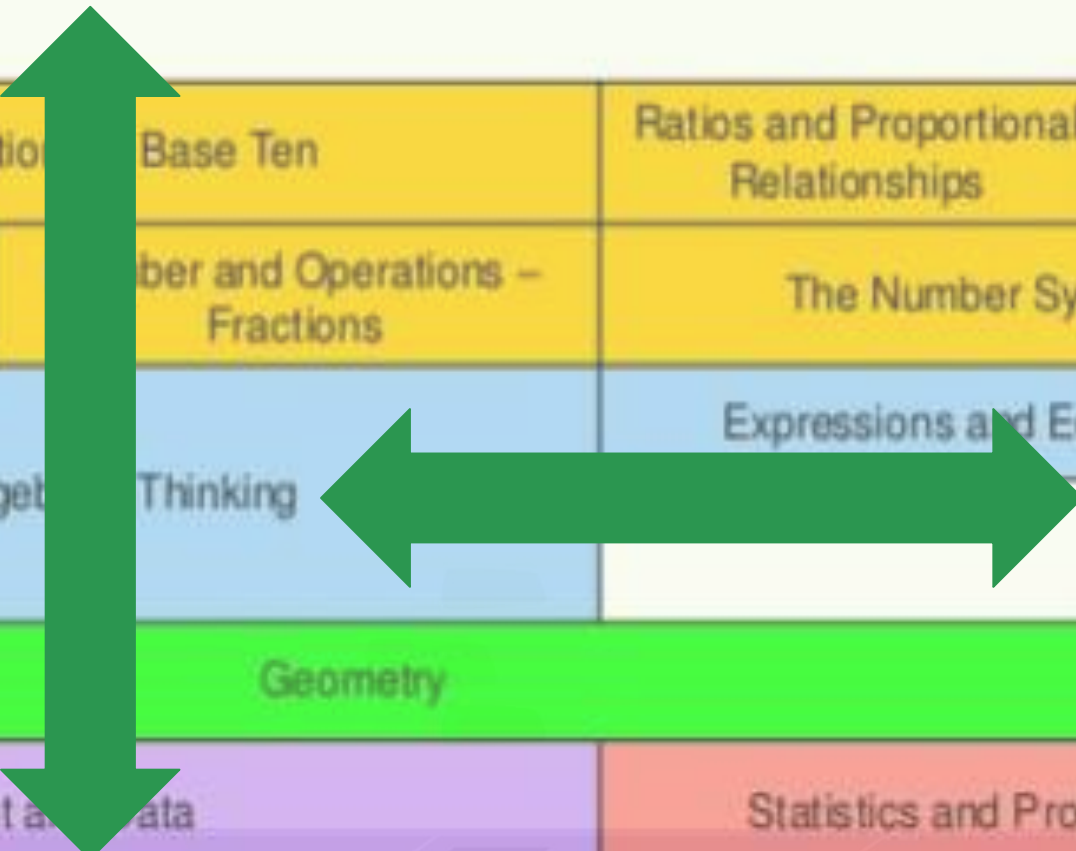
*At least 65% and up to approximately 85% of class time, with Grades K–2 nearer the upper end of that range, should be devoted to the Major Work of the grade.





Coherence

K	1	2	3	4	5	6	7	8	HS
Counting & Cardinality									
Number and Operations – Base Ten			Ratios and Proportional Relationships			Number & Quantity			
	Number and Operations – Fractions			The Number System					
Operations and Algebraic Thinking			Expressions and Equations			Algebra			
						Functions			Functions
Geometry									Geometry
Measurement and Data			Statistics and Probability						





Rigor

The Three-Legged Stool

Conceptual
Understanding



Procedural Skill
and Fluency

Application



One of the resources used to identify math curricula that is aligned with CA state standards (CCSS M) for focus, coherence, rigor, and mathematical practices is Ed Reports.org. For access to the research data collected on Bridges in Mathematics, Ready CC, and several other math programs, please use this link:

<https://www.edreports.org/compare/results/math-k8>

- **Bridges in Mathematics** website:
<https://www.mathlearningcenter.org/bridges>



- **Ready Common Core** website:
<https://www.curriculumassociates.com/products/ready/mathematics>
CUSD K-5 Math Curriculum since July 2014



Materials Evaluation Criteria

- ✓ Focus
- ✓ Coherence
- ✓ Rigor
- ✓ Mathematical Practices
- ✓ Assessments
- ✓ Universal Access
- ✓ Technology
- ✓ Teacher Support/Ease of Use
- ✓ Overall Program Score



Recommendation to Approve *Bridges in Mathematics*

➤ Overview of the Curriculum

- A comprehensive curriculum
- Meets and exceed the Common Core State Standards for Content & Practices
- Rigorous, coherent, and engaging
- Accessible to all learners
- Blends direct instruction with investigations and explorations (Number Talks & Performance Tasks)

➤ Structure and Components

Number Corner

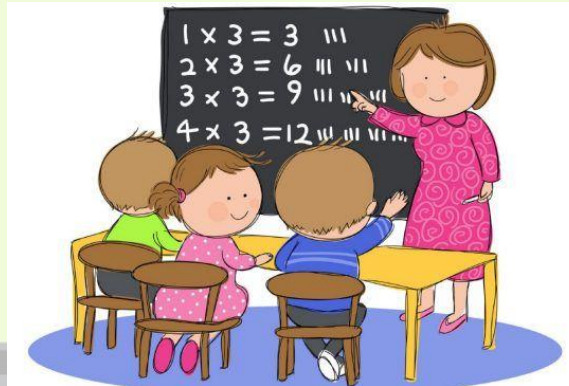
20 minutes/day



Problems & Investigations

Work Places

60 minutes/day



*Home Connections &
Student Books TK-5*



Consensus

“We have arrived at consensus when

- (1) All points of view have been heard, and
- (2) The will of the group to move forward is evident – even to those who most oppose it.”

- - DuFour, *Learning by Doing*

Using DuFour’s guiding principles, CUSD reached consensus:

- ✓ Everyone clearly understands the proposal/agreements.
- ✓ Everyone has had an opportunity to have their voice “in the room.”
- ✓ Everyone agrees to support the decision, born from the “will of the group,” and to move forward as a united front rowing in the same direction.



Joint Elementary Math Meeting

Bridges Pilot Teacher Forum

December 12, 2018

This chart documents feedback from teachers piloting Bridges. Kelly Fortson (K); Josh Barbera, Lindsey Cummins, Cecelia Marston, Connie Johnson, Elizabeth Patrick (2nd gr. team); Debbie Hatheway, Robyn Fullmer (3rd gr. team); Kerri Ramirez (4th gr.); Kathy Shady, Crystal Garner (5th gr.); Sarah Yakutis, Renee Cavanaugh (5th gr. team)

Pros	Cons
<ul style="list-style-type: none">• Test scores are remarkably better for students in Kathy Shady's 5th grade.• Assessments have a mixtures of word problems and algorithms• Pre and Post tests• Check points• Number Talks embedded (Number Corner)• Student self-reflection• Integrated skills/spiral/mixed space practice• Students are developing a greater number sense• Workplace games (similar to reading group centers)• Scaffolding built in program• Intervention to fill in gaps• Learning through games (Workplaces)• Grade 2 units are focused around a theme• Very high student engagement• Students are developing a greater capacity to be flexible thinkers• Depth, not breadth• Positive parent feedback	<ul style="list-style-type: none">• A lot of prep and materials to be organized (kinder)• Number Corner is about 20 minutes in addition to the daily math lesson of 60 minutes. Total of 80 minutes for math per day. Kinder is 15 + 45 for ~ 60 minutes total.• Number Corner is more than just a number talk; number talks are part of number corner• Bridges has dominated teacher prep time.• Workplace student directions are too long and can be confusing.• 2nd grade: not many options for enrichment• Teacher will need training and time with materials• Master schedule concerns due to amount of time needed for Bridges daily lesson + daily number corner.

Additional teacher questions/comments:

- If adopted will all grade levels be required to use the curriculum?
- Will all teachers be held accountable for implementing the curriculum if adopted?
- Who will hold teachers accountable for implementing curriculum?



Consensus Survey Results

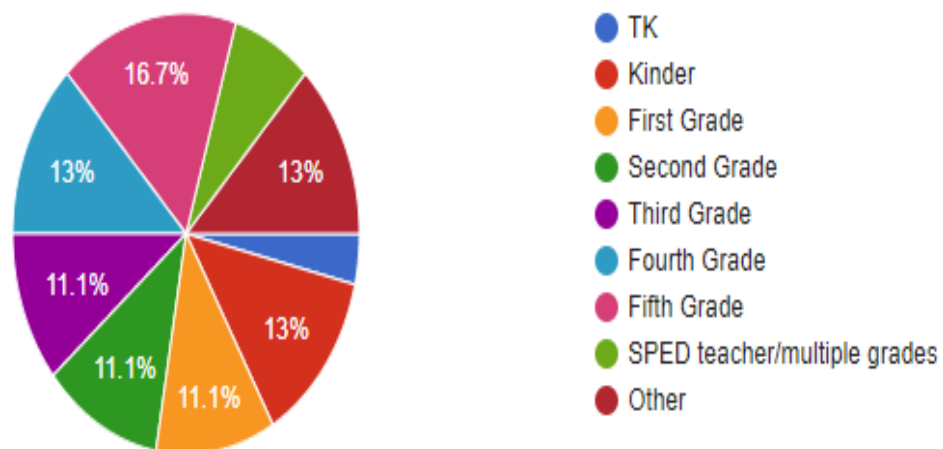
March 2019

Understandings:

- ~ CUSD TK-5 teachers will use a common math curriculum, implemented with fidelity, in Fall 2019/20
- ~ The math curriculum that is chosen for adoption will be supported by site administrators and the Learning Department
- ~ Professional learning and curriculum training will be provided to ensure fidelity of implementation
- ~ Materials will be provided for full-implementation
- ~ Time and assistance for preparation will be provided and/or compensated

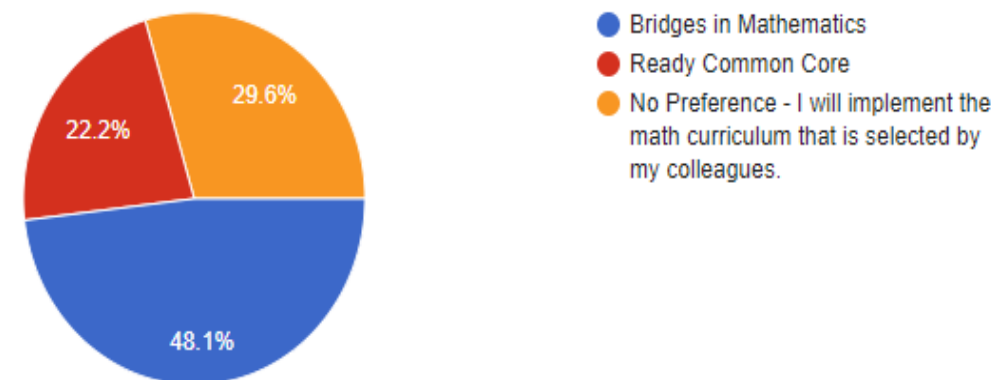
What grade level do you teach/co-teach?

54 responses



Please choose the math curriculum that you prefer to use in the fall of 2019/20.

54 responses



TK-5 Next Steps

1. Establish Partnerships with other Bridges Districts

Newport-Mesa Unified, Palo Alto Unified, Napa Unified, Culver City,
Rocklin Unified, Denver Public Schools

2. Materials in Hands ASAP!

3. Give Ourselves Permission to Go Slow!

Year 1: Exploration Phase

Year 2: Clarifying and Revising Phase

Year 3: Focusing and Refining

4. Professional Learning

June 2019

August 2019

Wednesdays and Late Start Thursdays

Facilitators Training

Coaching Courses



Thank You to the Team!

TK-5 Teachers
Jennifer Moore
Heidi Bergener
Tanya White
Stacy Morrissey
Julia Braga
Julie Salvatierra
Director of Learning
SDCOE

Pilot Teachers:
Sarah Yakutis
Renee Cavanaugh
Robyn Fulmer
Debbie Hatheway
Kathy Shady
Crystal Garner
Kerri Ramirez
Josh Barbera
Cecelia Marston
Lindsey Cummins
Elizabeth Patrick
Connie Johnson
Kelly Fortson

“Just wanted to pass along to the powers that be - that I love this program (and I’ve never even liked math - not even a little). This program has changed how I feel about teaching math, and I can see the difference in my students - in the way they approach problems, in the way they can show their understanding, and there is so much less frustration with struggling students. The last quick check I gave my students - 93% scored Secure!!! that never happens. I really, really hope that our district selects this program.”

~ CUSD 5th Grade Teacher

