



KCUSD Math Pathways and Placement

Board Presentation
May 2016

KCUSD Mission

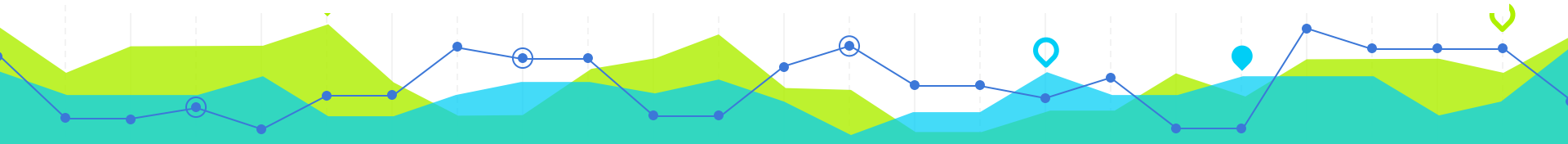
Our mission is to provide a broad spectrum of educational programs and co-curricular activities for ALL students so that they may reach their highest potential. All students can learn and succeed. Each student at every level will:

- encounter a challenging and interesting curriculum
- experience a variety of instructional strategies that promote lifelong learning
- build high self-esteem through success in personal responsibility and achievement
- engage in enriching co-curricular activities



SB 359 California Math Placement Act of 2015

- Districts must adopt a fair, objective, and transparent mathematics placement policy for 2016-17 school year:
 - multiple objective academic measures
 - one placement checkpoint within first month of school year to ensure accurate placement and permit reevaluation
 - annual examination of aggregate placement data and report results to governing board
 - clear and timely recourse for each pupil who questions placement
 - consistency of mathematics placement policies between elementary and high school districts
 - math placement policy is posted on district website
- See BP 6152.1



Committee Members:

John Ahlin

Kim Alves

Myles Bacon

Monica Benner

Lori Botkin

Angel Durazo

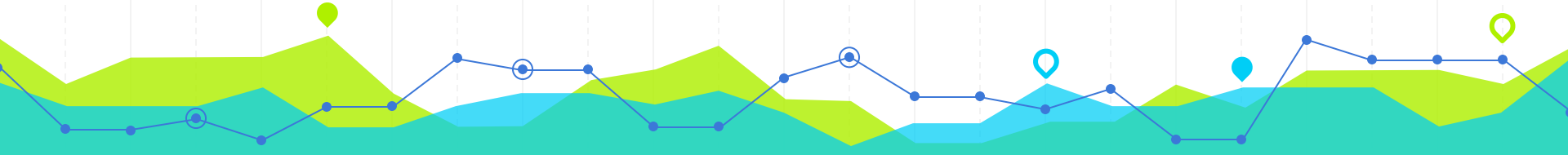
Roberto Gutierrez

Jennifer Loomis

Margie McIntyre

Heidi Nenadov

Jose Ruvalcaba



Considerations for Placement

- Math Framework
- Ensure students are college/career ready
- Data driven decision utilizing multiple measures
- Review of other districts' policies and procedures
- Educational Research



Components of Placement

7th Grade SBAC

- Concepts and Procedures
- Problem Solving: Modeling and Data Analysis
- Communicating Reasoning

8th Grade NWEA

- Operations and Algebraic Thinking
- Real and Complex Number Systems
- Statistics and Probability
- Geometry

8th Grade SBAC

- Concepts and Procedures
- Problem Solving: Modeling and Data Analysis
- Communicating Reasoning

Fall Review

- Math 1 Common Assessment

Initial Placement
Previous SBAC and NWEA
(February/March)

Final Placement SBAC
(End of the school year/summer)

Placement Checkpoint
(First month of the school year)

Scoring Guide and Placement Decisions

- Currently, field testing and calibrating rubric scores to determine:
 - appropriate indicators of success
 - which standards demonstrate course mastery
- Cut scores and student scores will be available after placement is complete

Criteria	Points Earned	Concepts Measured	
2015 SBA Math • Overall <i>(penalty school year)</i>	Exceeds Standard: 4 At Standard: 3 Near Standard: 2 Below Standard: 1	Composite of concepts and procedures, problem solving, data analysis, and communicating reasoning on grade level standards.	
2015 SBA Math • Claim 1: Concepts and Procedures <i>(penalty school year)</i>	Above Standard: 3 At/Near Standard: 2 Below Standard: 1	Explain and apply mathematical concepts and interpret and carry out mathematical procedures with precision and fluency.	
2015 SBA Math • Claim 2: Problem Solving and Data Analysis <i>(penalty school year)</i>	Above Standard: 3 At/Near Standard: 2 Below Standard: 1	Analyze complex, real-world scenarios; Construct and use mathematical models to interpret and solve problems.	
2015 SBA Math • Claim 3: Communicating <i>(penalty school year)</i>	Above Standard: 3 At/Near Standard: 2 Below Standard: 1	Clearly and precisely construct viable arguments to support reasoning to critique the reasoning of others.	
Northwest Evaluation Association (NWEA) Map (Map) for Overall RIT (Rozan Unit Score) Score	+250 240-249 231-239 220-230 +220	4 3 2 1 0	RIT is a measurement scale related to curriculum scores in each subject area. Scores range from about 100-300.
NWEA Map 6+ Operations and Algebraic Thinking	+250 240-249 231-239 220-230 +220	4 3 2 1 0	Apply and extend previous understandings of arithmetic to algebraic expressions, equations, and inequalities. Model relationships between quantities using functions and representations.
NWEA Map 6+ Real and Complex Number Systems	+250 240-249 231-239 220-230 +220	4 3 2 1 0	Apply and extend previous understandings of arithmetic to the real and complex number systems by solving problems involving ratio, rate, proportion, rational numbers, and numbers, complex numbers, and the coordinate plane.
NWEA Map 6+ Statistics and Probability	+250 240-249 231-239 220-230 +220	4 3 2 1 0	Summarize, represent and interpret data, (including measure of center and variability, Understand and evaluate random processes and compute probabilities of events in a uniform probability model.
NWEA Map 6+ Geometry	+250 240-249 231-239 220-230 +220	4 3 2 1 0	Solve problems involving area, circumference, surface area, volume, and angle measure. Understand congruence and similarity in terms of transformations and apply theorems involving properties of circles and right triangles.
Total Points Possible	33		

Initial Placement Rubric (Spring)

7th Grade Smarter Balanced Assessment Overall

SBA Claim 1
Concepts and
Procedures

SBA Claim 2 & 4
Problem Solving and
Data Analysis

SBA Claim 3
Communicating
Reasoning

8th Grade North West Evaluation Association

NWEA
Operations and
Algebraic Thinking

NWEA
Real and Complex
Number System

NWEA
Statistics and
Probability

NWEA
Geometry

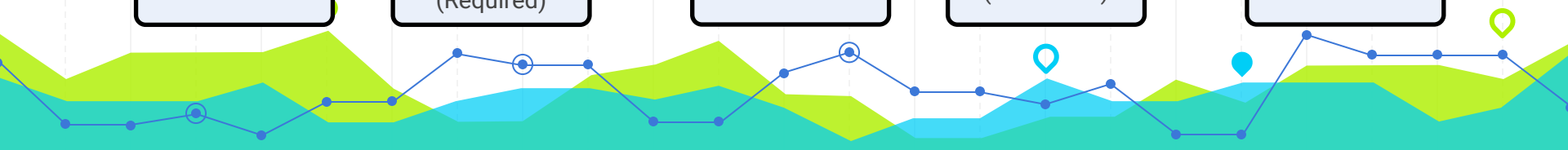
HS Math 1A

Support
(Required)

HS Math 1

Support
(as needed)

HS Math 1E



Final Placement Rubric (Summer)

7th Grade Smarter Balanced Assessment Overall

SBA Claim 1
Concepts and
Procedures

SBA Claim 2 & 4
Problem Solving and
Data Analysis

SBA Claim 3
Communicating
Reasoning

8th Grade North West Evaluation Association

NWEA
Operations and
Algebraic Thinking

NWEA
Real and Complex
Number System

NWEA
Statistics and
Probability

NWEA
Geometry

8th Grade Smarter Balanced Assessment Overall

SBA Claim 1
Concepts and
Procedures

SBA Claim 2 & 4
Problem Solving and
Data Analysis

SBA Claim 3
Communicating
Reasoning

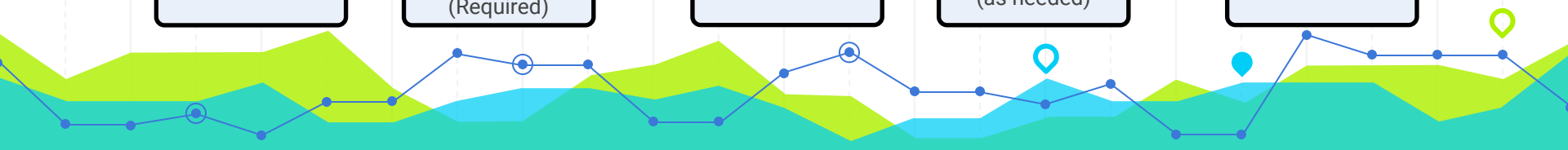
HS Math 1A

Support
(Required)

HS Math 1

Support
(as needed)

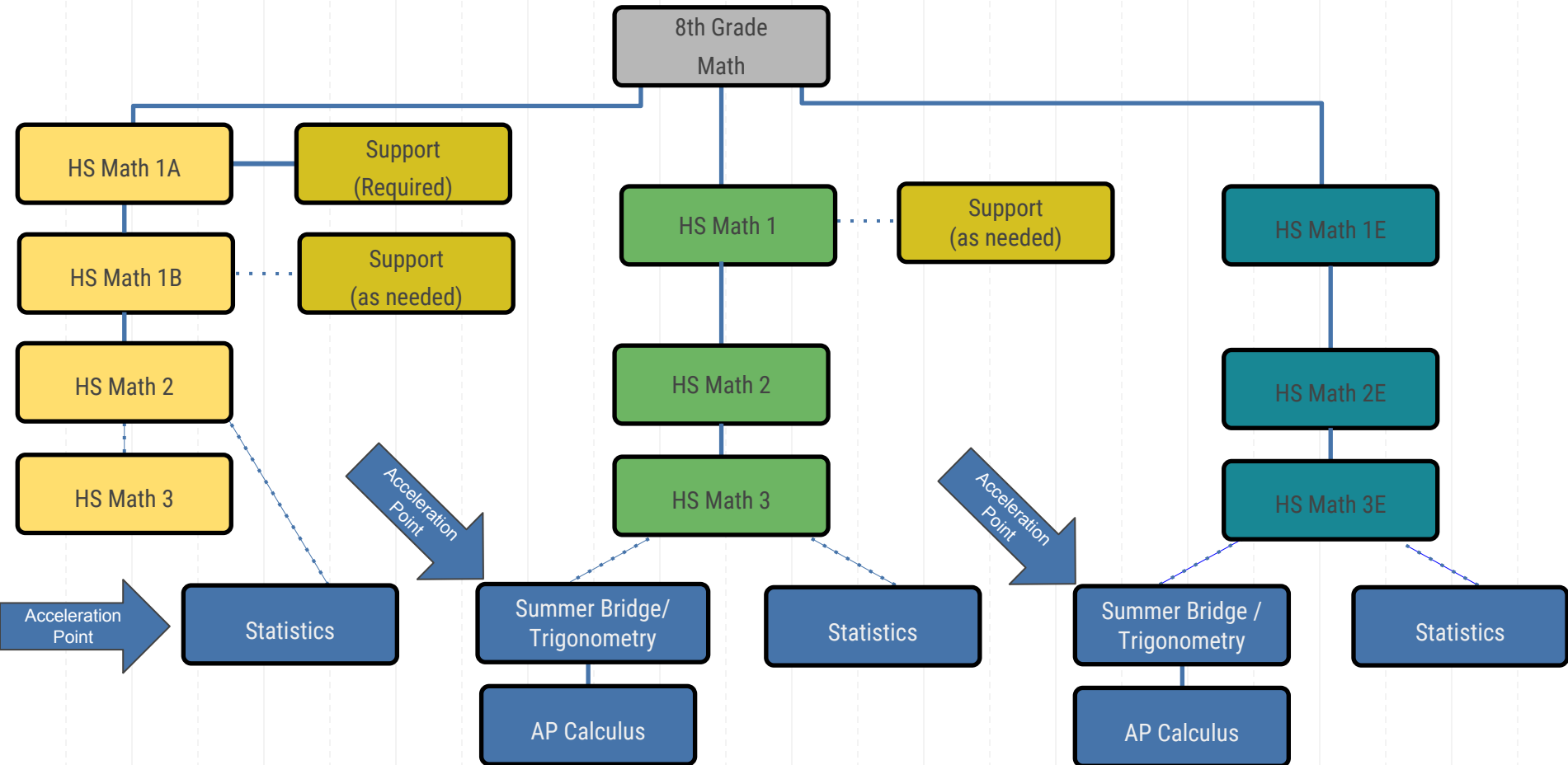
HS Math 1E



Recourse Policy

- Parent /Guardian may request that site administration present the outcomes from objective multiple performance measures.
- Board Policy states:
 - *“Within 10 school days of a final placement decision upon reevaluation, a student and his/her parent/guardian who disagree with the placement of the student may appeal the decision to the Superintendent or designee. The Superintendent or designee shall decide whether or not to overrule the placement determination within 10 day school days of receiving the appeal. The decision of the Superintendent or designee shall be final.”*

KCUSD Math Course Sequence 2016-17



Resources for Parents and students



Parent Guide to Smarter Balanced Summative Assessments - Grades 6,7,8

- Subject by subject, grade by grade sample questions
- Sample items explain academic standards being addressed.
- Examples note the kinds of questions students must answer correctly to reach each achievement level.



<http://www.cde.ca.gov/ta/tg/ca/documents/sbparentgde68.pdf>

Additional Parent and Student Resources

- National Council of Teachers of Mathematics (NCTM): <http://www.nctm.org/Classroom-Resources/Browse-All/>
- Khan Academy: <https://www.khanacademy.org/>
- Khan Academy Learnstorm: <http://www.learnstorm2016.org/>
- Math at the Core: Middle School Resources (PBS): <http://www.pbslearningmedia.org/collection/mathcore/>
- Math worksheet site: <http://www.themathworksheetsite.com/>



THANK YOU!

Any questions?

