Moving Forward with Mathematics **Teaching** and Learning at Juvenile Court & **Community Schools**

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Lauren Aranguren, Director, Equitable Learning Systems, Curriculum and Instruction Division



Agenda

- Our Why
- Let's Do Some Math!
- Mathematics Professional Learning at JCCS
- Impacts and Connections
- Additional Professional Learning
- Questions and Closure



100%

of students are socio-economically disadvantaged

88%

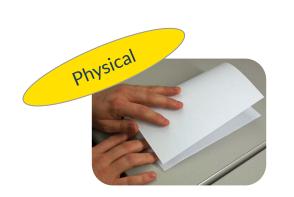
of students scored at "not met" standard in mathematics

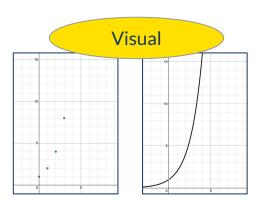
Let's Do Some Math!



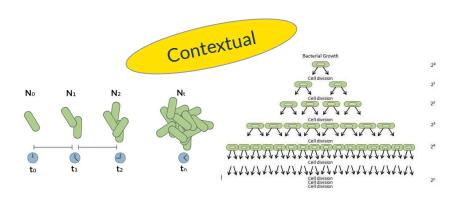


Multiple Understandings through a Rich Task





Symbolic			
x_1	y_1	SOIIC	
0	1		
1	2	$y=2^x$	
2	4		
3	8		
4	16		



Verbal

The number of sections doubles with each fold.



Professional Learning Activities

Year 1

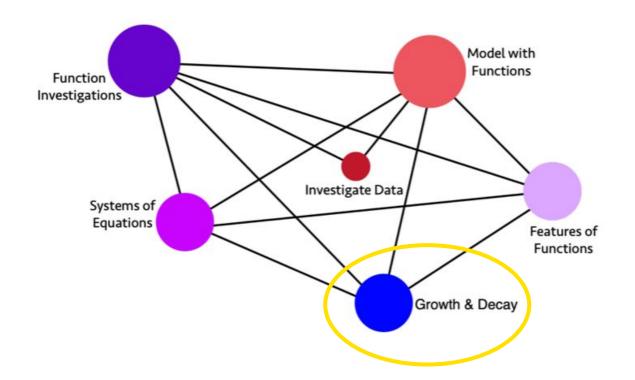
Professional Learning Focus Areas

- Deepening understanding of the California Common Core State Standards for Math (CCCSS-Math)
- Implementation of the National Council of Teachers of Mathematics (NCTM) Effective Teaching
 Practices
- Common instructional routines and strategies



The 2023 California Mathematics Framework

Figure 9.7. High School Algebra Big Ideas





The Big Ideas and Standards Alignment

Content Connection	Big Idea	Algebra Standards
Taking Wholes Apart, Putting Parts Together	Growth & Decay	F-LE.1, F-LE.2, F-LE.3, F-LE.5, F-LE.6, F-BF.1, F-BF.2, F-BF.3, F-BF.4, F-IF.4, F-IF.5, F-IF.9, NQ.1, A-SEE.1: Investigate situations that involve linear, quadratic, and exponential models, and use these models to solve problems. Recognize linear functions grow by equal differences over equal intervals; exponential functions grow by equal factors over equal intervals, and functions grow or decay by a percentage rate per unit interval. Interpret the inverse of functions, and model the inverse in graphs, tables, and equations.



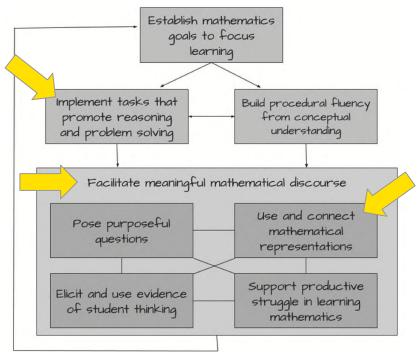


Figure 1. A framework for mathematics teaching that highlights the relationships between and among the eight effective teaching practices (Smith, Steele, & Raith, 2017, p. 194)

National Council of Teachers of Mathematics (NCTM) Effective Teaching Practices





The Standards for Mathematical Practice (SMP)

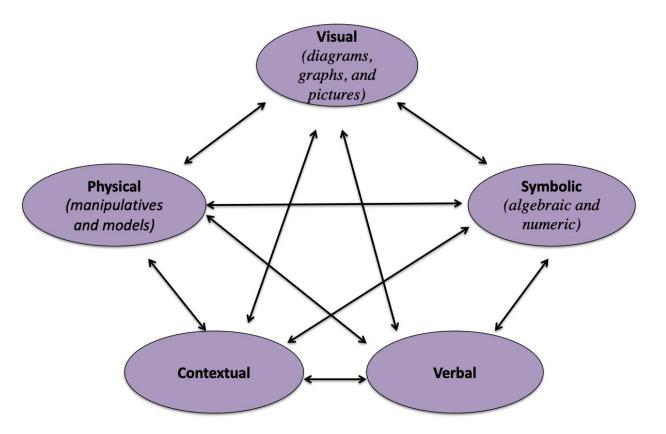
- Make sense of problems and persevere in solving them.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- 4. **Model** with mathematics.
- 5. Use appropriate tools strategically.
- 6. Attend to precision
- 7. Look for and make use of structure.
- Look for and express regularity in repeated reasoning.

The Standards for Mathematical Practice (SMP)

National Council of
Teachers of Mathematics
(NCTM)
Effective Teaching Practices



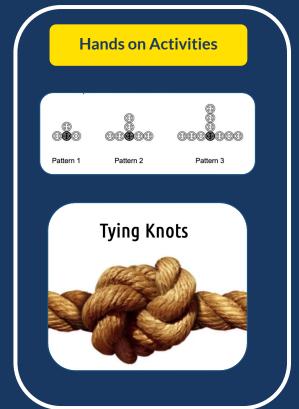
Multiple Entry Points for Students



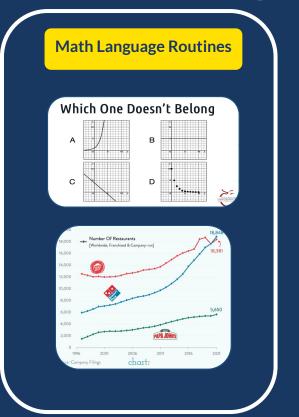


New Instructional Tools and Strategies









Impact on Student Performance

Impact

Student Data

2021-22 SBAC

 22.2% of students scored at nearly met or met standard in mathematics.

2022-23 Let's Go Learn

- 63.6% of Long Term students (enrolled 90+ days) increased at least one grade level
- 42.8% of those students increased more than one grade level.

Teacher Testimonials

- "The 1:1 coaching I received was invaluable."
- "I immediately saw increased student participation and engagement when implementing low-floor, high-ceiling tasks."
- "I appreciated having high interest activities and strategies modeled in my classroom."
- "Lauren taught us strategies that I was able to implement the following day in my classroom."

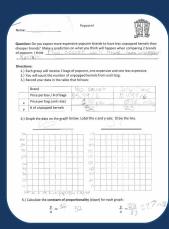
Impacts on Teaching and Learning

Mathematical Language

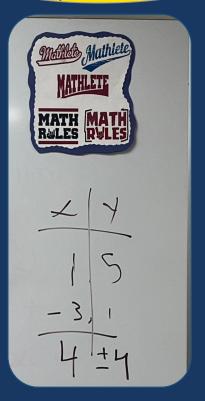




Rich Task



Tabular Representation



Digital Tools







Ongoing Work

2023-24 School Year

Math Team
Professional Learning

and

Individual Coaching

Moving Forward



Year 2 Goals

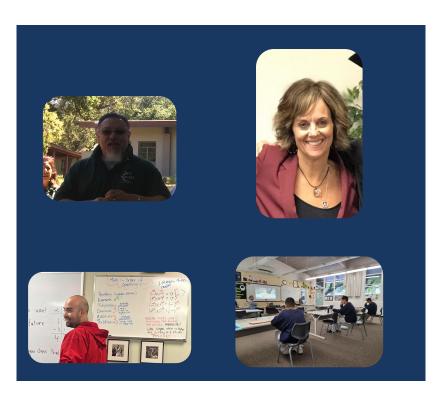
- Implementation of interim assessments and Smarter
 Balanced teaching tools
- Exploration and selection of curricular materials aligned to the CCCSS-Math and the 2023 California Mathematics Framework



JCCS Mathematics Team

Members

- Eriberto Torres, Dos Puertas Teacher
- Mark Leufkens, Los Robles Teacher
- Trish Hocking-Walker, Peter B. FitzGerald Teacher
- Jonathan Reyes, Peter B. FitzGerald Teacher
- Rene Wheeler, Instructional Leadership



Additional Professional Learning

Scholar Systems

Dr. Victor Rios

A Professional Learning, Leadership and Empowerment Program for Educators, Students, and Parents

- Professor of Sociology at UCSB
- MacArthur Foundation Chair
- Ted Talks: Help for kids the education system ignores
- Author

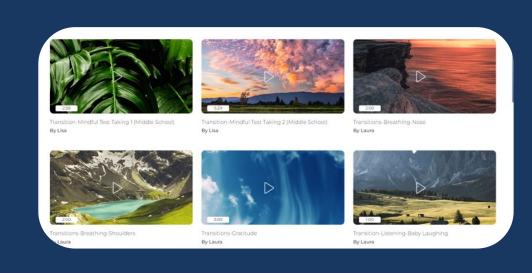


innerExplorer

Making Mindfulness in Schools Simple, Inspiring, and Inviting

Practices

- Daily
- Transition
- Sound
- School Safety Series
- Counselor Series
- Educator Well-Being Series
- Mindful Activities



Character Based Literacy

Key Components

- Each novel explores a universal theme
- Students Read, Write, and Discuss every day

CBL Workgroup Focus

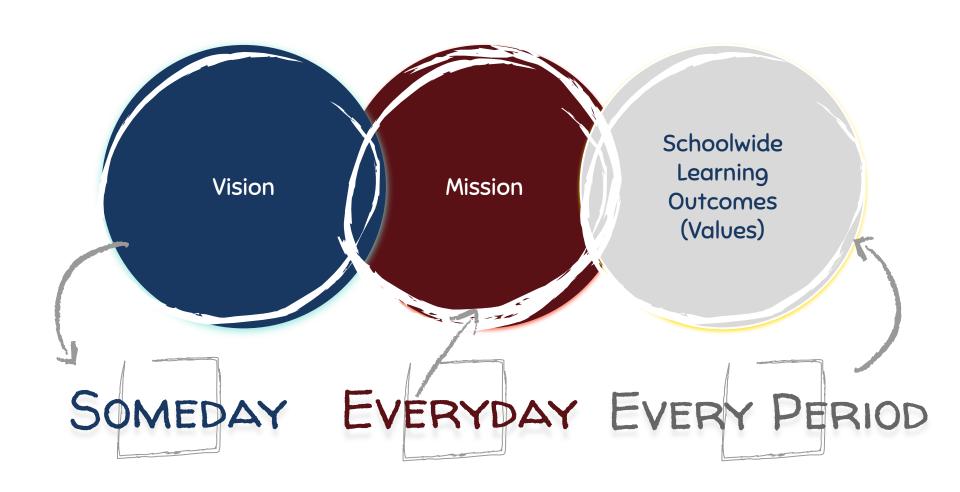
- Pacing Plan
- Integrated ELD strategies
- Common Assessments
- CAASPP Interim Assessments



HOW THE GARCIA

JCCS

Vision, Mission and Schoolwide Learning Outcomes



Vision

Juvenile Court and Community School educators guide students to succeed in healthy social, emotional, academic, and career growth as they flourish into productive members of society.



Within our highly-structured environment, our commitment is to provide a student-centered, deeply-engaging setting that is safe and respectful for all. In preparing students for 21st century readiness we focus on perseverance, problem solving, collaboration, career awareness, and critical thinking in all-inclusive classrooms. We strive to include parents, teachers, and community members as partners in our students' educational program as they work to **reach** their full potential.

Mission



Schoolwide Learning Outcomes



Agency and Perseverance



Critical Thinking



Effective Communication



Twenty-First Century Readiness

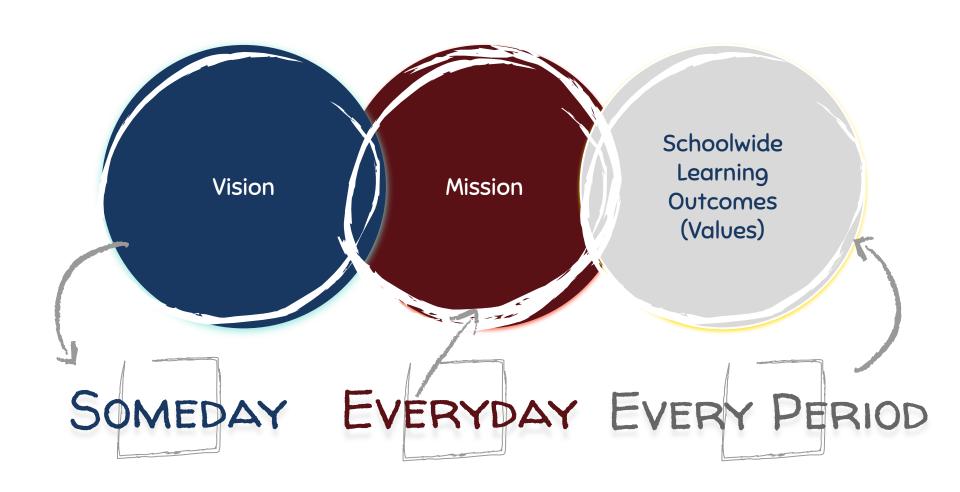
Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.

- 2. Reason abstractly and quantitatively.
- 7. Look for and make use of structure.
- 8. Look for and express regularity in repeated reasoning.

- 3. Construct viable arguments and critique the reasoning of others.
- 6. Attend to precision.

- 4. Model with mathematics.
- 5. Use appropriate tools strategically.



Thank you