



Pacifica School District

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Preparing Students for an Evolving World

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MEMORANDUM

Educational Support Services

Meeting of 3/2/16

TO: Wendy S. Tukloff, Ed.D., Superintendent
For Board of Trustees

FROM: Tina Van Raaphorst, Executive Director of Educational Support Services

SUBJECT: K-5 Mathematics Curriculum Adoption (Goal: LCAP #2, #4)
(Action)

Recommendation

It is recommended that the Board adopt the State Standards aligned K-5 mathematics curriculum *Bridges in Mathematics* (2nd edition).

Background

Full implementation of the State Standards in mathematics requires the adoption of instructional materials that align to the new math content standards and the mathematical practice standards.

Designed to provide multiple opportunities for input from all stakeholders, PSD employed a thorough process of reviewing, piloting, and selecting instructional materials for recommendation.

Bridges in Mathematics (2nd edition) is a comprehensive standards-aligned math curriculum. Teachers who piloted Bridges describe the curriculum as rigorous, highly engaging, and accessible for all levels of math learners. The curriculum focuses on developing students' deep understanding of mathematical concepts, proficiency with key skills, and ability to solve complex and novel problems. Bridges blends direct instruction, structured investigation, and open exploration. It taps into the intelligence and strengths of all students by presenting material that is as linguistically, visually, and kinesthetically rich as it is mathematically powerful.

The following is a summary of the elementary math adoption process as recommended by the California State Board of Education, an overview of the state guidelines for instructional material adoption, and a timeline of activities in the PSD materials review and piloting process.

California State Board Adoption Process Overview

The California State Board of Education provided updated guidelines for piloting textbooks and instructional materials in January, 2015. All guidelines were followed as part of PSD's elementary math adoption process. For more details, visit the CDE website <http://www.cde.ca.gov/ci/cr/cf/imagen.asp> and click on the document titled: Guidelines for Piloting Textbooks and Instructional Materials. A basic overview of the process is outlined below.

1. Determine which materials to pilot.
 - a. Establish a representative committee
 - b. Define and prioritize evaluation criteria
 - c. Develop an evaluation instrument
 - d. Ensure that instructional materials comply with state laws and regulations for social content
2. Pilot instructional materials using a representative sample of classrooms for a specified period of time. Effective pilots help teachers determine whether the materials actually provide the needed resources to teach the standards at their grade level. The evaluation of the teachers piloting the materials should carry considerable influence in the decision making process.
3. Other piloting considerations.
 - a. Keep the committee informed about the process
 - b. Verify correlations of standards provided by publishers to actual standards
 - c. Survey educators outside the district on their experiences with pilot materials under consideration
4. Develop a curriculum map to identify the materials to be utilized to ensure complete coverage of the standards taught at each grade level. Seek out supplemental materials, if needed.

State Guidelines for Instructional Material Adoption

In 2013, EC Section 60210 was added via AB1246 (Brownley) allowing districts to select instructional materials that are not on the state-adopted list, as long as a review committee consists primarily of teachers who are working directly with students at the time of the adoption process. For more information, refer to the [Instructional Materials FAQ](#) posted on the CDE website.

K-5 Math Adoption Committee

Five elementary classroom teachers and one math specialist were on the K-5 Math Adoption Committee.

Committee Members:

- Seva Steel Math Specialist (2014-15)
- Stacy Russell Math Specialist (2015-16)
- Gina Arguello (Ortega Elementary)
- Kelly Eldelhart (Valleamar)
- Barbara DeVolder (Cabrillo)
- Joanne Frediani (Sunset Ridge)
- Jonathan Harris (Ocean Shore)

Adoption Committee/Pilot Process and Timeline

Timeline	Procedure	Participants
May 2014	<p>Educators had the opportunity to examine common core resources at the District Office and meet with the math coach to discuss the programs.</p> <p>May 23rd teachers had a professional development day through PSD and SVMl that gave them the necessary tools and information around the common core pedagogy. This was to assist teachers in looking at the materials.</p>	<p>Math Coach Principals Teachers SVMl</p>
June 2014	<p>Teachers were to request pilot materials by 5/28/14 for the 2014-15 school year. Participating teachers agreed to be an active member of the curriculum committee, attended meetings and completed the "Math Curriculum Evaluation" forms.</p> <p>On May 29th, at the curriculum meetings, principals worked together to select interested teachers to pilot and serve on the math curriculum committee.</p> <p>The math coach was responsible for facilitating math committee meetings and sending out the agenda.</p>	<p>Math Coach Principals Teachers</p>
June 2014	<p>Piloting materials ordered.</p> <p>Participating teachers to attend the 3-day SVMl PD and a one day PD for the particular curriculum piloted.</p> <p>Committee meeting scheduled to evaluate resources needed for implementation (i.e. materials to support Engage NY, Terc student activity books).</p>	<p>Publisher Curriculum Committee</p>
August 2014 - October 2014	<p>Teachers will pilot for a minimum of 6-8 weeks.</p> <p>Piloting Teachers of Everyday Math, Engage NY, Math in Focus and Singapore Math provided feedback.</p>	<p>Math Coach Teachers</p>
March 2015	<p>Math coach facilitated a professional learning session in which committee members reviewed the results of the "Math Curriculum Evaluation", including evaluation rubrics, CCSS alignment, pros and cons of assessments, technology, and access. The committee tallied each grade level for each program and provided a recommendation to the teachers, Superintendent, and the Board.</p> <p>All teachers teaching math had the opportunity to view</p>	<p>Math Coach Superintendent Board Members Teachers Principals</p>

	recommended materials and give written input.	
May 2015	Grade level teachers, 2nd thru 5th, curated curriculum, using the SVMl transition units and incorporated lessons from Engage NY (Eureka Math). Teachers K-5 volunteered to pilot Bridges. Materials ordered.	Teachers
August 2015	Bridges and Engage NY pilot were implemented.	Teachers
November 2015	Piloting teachers were asked to provide their pros/cons list for Engage NY and Bridges.	Teachers
December 2015 - January 2016	Math Lead visited sites to answer questions and concerns around Engage NY and Bridges. Created/distributed updated lists.	Math Specialist Teachers Principals
January 2016	Teachers and principals attended a math PD to hear presentations from both Eureka Math via Webex and Bridges. Opportunity to view curriculum and ask questions of the publishers.	Teachers Principals Superintendent Bridges and Eureka Math Representatives
February 2016	Math Leads presented a recap of the adoption process and a teacher survey was given. Bridges had 80% of the teachers in support.	Math Leads Math Specialist Principals Teachers
February 2016	Bridges materials were available for public viewing at the District Office. Parents were notified of this opportunity to provide comments on the materials through regular communication channels at each school.	Parents

Next Steps, should the Board of Trustees approve the adoption of Bridges:

Materials will be ordered from The Math Learning Center and will include:

- Teacher binders for Bridges 2nd Ed., Number Corner, and Assessment Guides
- Online teacher resources and support
- Manipulatives, games and activities, word resource cards, and classroom calendar
- Student workbooks: Bridges 2nd Edition, Number Corner and Home Connections
- Summer Professional Development
- Parent information opportunities

Teachers will also be given the choice of two summer professional development days in June and August. Teachers will be trained in groups of K-2 and 3-5. A follow-up training will be given during the district wide Professional Development Day on October 17th.