



## MEMORANDUM

To: Dr. Greg Baker, Superintendent  
From: Pre-K -12 Mathematics Committee  
Date: May 14, 2014  
RE: **Proposal for adoption of instructional materials in mathematics**

### Introduction

Teachers and parents agree that mathematics instruction and materials in Bellingham Public School lack the desired focus, coherence, and rigor needed to fully implement the new state standards for K-12 Mathematics.

In November 2013, applications for participation on a Pre K -12 Math Committee were solicited from staff and parents/community members. The committee met eight times between November and April. Identifying representatives from all schools and grade levels as well as the Pre-school community, Special Education and the Highly Capable programs was critical. In the committee selection process, we increased the proposed membership to include a higher education partner representative from Western Washington University, Whatcom Community College and Bellingham Technical College. Larrabee Elementary and Options High were not represented by a teacher (school choice), however, reports were provided to those schools throughout the process.

The committee used the Center for Adaptive Schools' Norms of Collaboration throughout the process. Each committee member took seriously the commitment of time and energy. The steps of the process included:

### Plan of Work:

- Convene committee to discuss the work of the year
- Begin program review, including reviewing current state of materials time spent teaching mathematics, professional development support, etc.
- Conduct teacher perception survey, parent and student survey
- The committee will also take into consideration:
  - Students with disabilities, English Learners and Highly Capable Learners
  - Online and open educational resource opportunities
  - Technology use/implications
  - Assessment system
  - Learning of Common Core State Standards-Mathematics
  - Recent research on best practices in mathematics

- Feedback from staff, students and parents

Meeting schedule included the highlights below. Links to minutes as well as other committee documents can be found at <http://bellingshamschools.org/prek-12-math-committee>

- November 25: Develop team norms, review the scope of the work, review research and data collected. Identify needs.
- December 17: Professional readings, develop belief statement(s), create screening tool.
- January 7: Study publisher's criteria, create recommendation form.
- February 20 and 21: Screen all available materials, select no more than three semi-finalists for further review; complete a domain trace.
- March 4: Publisher's presentations. Continue to examine semi-finalists.
- March 27: Continue deep dive in the programs using tools from the Instructional Materials Evaluation Toolkit (IMET).
  - <http://achievethecore.org/page/783/instructional-materials-evaluation-tool-kit>
- April 22: Final decision and recommendation. Initiate adoption proposal paperwork including bias screenings.

These were not committee meeting dates, but were part of the process:

- March 10-March 14: Staff/Parent/Student feedback on semi-finalists.
- March 12: Secondary early dismissal with staff review of finalists
- April 2014: Elementary grade level PLCs and principal level meetings—opportunity to provide feedback.
- May 2014: Middle school math teachers and principals review plan and discuss sequence

### Materials considered

Elementary Materials	
Materials	Publisher
Bridges in Mathematics	Math Learning Center
EnVision	Pearson
Stepping Stones	ORIGO
Math Expressions	Houghton Mifflin Harcourt
Go Math!	Houghton Mifflin Harcourt
Math in Focus	Houghton Mifflin Harcourt
Math Trailblazers	Kendall Hunt
My Math	McGraw Hill
Ready Common Core	Curriculum Associates
Middle School Materials	
Go Math!	Houghton Mifflin Harcourt
Glencoe Math	Glencoe McGraw Hill

Big Ideas and Big Ideas Advanced	Houghton Mifflin Harcourt
Agile Mind	Dana Center
Digits	Pearson
Core Focus on Mathematics	SMc Curriculum
Connected Mathematics 3	Pearson
Carnegie Learning Math Series	Carnegie Learning
College Preparatory Mathematics	College Preparatory Mathematics
Math Innovations	Kendall Hunt
<b>High School Materials</b>	
Glencoe Math	Glencoe
Big Ideas	Houghton Mifflin Harcourt
Agile Mind	Dana Center
Carnegie Learning Math Series	Carnegie Learning
College Preparatory Mathematics	College Preparatory Mathematics
Discovering	Kendall Hunt
Meaningful Math	It's About Time
Center for Mathematics Education Project	Pearson
Pearson Common Core 2015	Pearson

### Recommendations

The committee's timeline concluded on Tuesday, April 22. We strongly recommend the adoption of new instructional materials with strong professional development support for mathematics instruction at all levels (K-5, middle and high school courses Algebra 1, Geometry and Algebra 2). The programs are listed below.

Budget for this adoption and accompanying professional development is provided as part of the budget development process.

<b>For elementary use (K-5)</b>
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**Bridges in Mathematics**, second edition, is a comprehensive K–5 curriculum that equips teachers to fully implement our state standards for Mathematics in a manner that is rigorous, coherent, engaging, and accessible to all learners.

The curriculum focuses on developing students' deep understandings 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.

For an overview, there is a 3 min. 45 sec. video here:

<http://www.mathlearningcenter.org/bridges/overview>

**For middle school use (Math 6, Math 7, Math 8, Compacted Math7/8)**

**Connected Mathematics 3 (CMP 3)** represents a reinvestment in a program we have used. The program has been updated to address the new state standards and has addressed the concerns that have been expressed in the past about perceived program weaknesses.

**CMP3 Goals**

The overarching goal of Connected Mathematics 3 is to help students develop mathematical knowledge, conceptual understanding, and procedural skills, along with an awareness of the rich connections between math topics—across grades and across content areas. Through the “Launch-Explore-Summarize” model, students investigate and solve problems that develop rigorous higher-order thinking skills and problem-solving strategies.

Curriculum development for CMP3 has been guided by an important mathematical idea: All students should be able to reason and communicate proficiently in mathematics. They should have knowledge of and skill in the use of the vocabulary, forms of representation, materials, tools, techniques, and intellectual methods of mathematics. This includes the ability to define and solve problems with reason, insight, inventiveness, and technical proficiency.

**For an overview video, see link here:**

<http://www.pearsonschool.com/index.cfm?locator=PS1yJe>

**For high school courses: Compacted Math 8/Algebra 1, Algebra 1, Geometry and Algebra 2**

**Agile Mind**

Agile Mind programs are grounded in years of research and experience from **the Charles A. Dana Center**. Our work builds on Dana Center studies of high-performing, high-poverty schools and districts, including schools with exemplary high-enrollment AP calculus programs for traditionally underserved students.

This is a digitally delivered program. Students will be provided assignment pages, but no hard copy textbook. Each high school provides additional time for students to access help and/or time to access the online materials during the student day (RtI time).

The links below give information about the program and an overview of the Algebra 1 course.

<http://www.agilemind.com/our-approach/>

<http://www.agilemind.com/programs/mathematics/algebra-i/>

## Committee members

Caren Pitsch	Alderwood, First grade
Lisa Conlon	Carl Cozier, Second grade
Shannon Sampson	Columbia, Fifth grade
Sarah Neyman	Cordata, Fourth and Fifth grades
Lisa Cassidy	Geneva, Elementary Special Education
Charles Pittis	Happy Valley, LMS and Math support
Beth Kealy	Lowell, Fifth grade
Tawni Eisenhart	Northern Heights, Third grade
Cami Burfeind	Parkview, First grade
Marca Kidwell-Babcock	Parkview, Third grade
Meredith Attar	Roosevelt, Third grade
Shari Lingbloom	Silver Beach, Second grade
Lisa Richardson	Sunnyland, Kindergarten
Nate Cornelsen	Wade King, Fifth grade
Lori Thoreson	Wade King, First grade
Breann Hulford	Fairhaven, Eighth grade
Tommy Lingbloom	Kulshan, Sixth grade
Beth Janis	Shuksan, Sixth grade
Chuck DeVange	Whatcom, Seventh grade
Scott Smartt	Bellingham High School, Geometry
Maria Griggs	Sehome High School, Algebra 1
Elyse Slagle	Squalicum High School, Algebra 2
Nicole Talley	Silver Beach, Elementary Administrator
Ryland Huff	Bellingham High School, Secondary Administrator
Stacey Nordvedt	Lowell, Elementary Parent
Kristine Weller	Shuksan, Secondary Parent
Kristen Reimers	Sehome, Secondary Special Education
Susan Cotton	Highly Capable Program, Teacher on Special Assignment
Kristine Wilson	Pre K representative, Opportunity Council
Mike Copland	Deputy Superintendent (ex-officio)
James Brandon Adams	Bellingham Technical College, Higher Education Partner
Ed Harri	Whatcom Community College, Higher Education Partner
Chris Ohana	Western Washington University, Higher Education Partner
Charisse Berner	Director of Teaching and Learning
Jeanette Grisham	Bellingham High School AP and Principal on Special Assignment