Elementary Math Pilot Report

<u>Problem</u>: Mathematics is the most pressing issue at QCSD and across the nation. At the onset of the PA Core Standards and the newly aligned PSSAs, students' performance in mathematics dropped considerably. In fact, student performance at 8th grade (56% P/A), which is down 25 percentage points from the previous year, is almost identical to the percent of students who are considered college and career ready as measured by the PSAT/SAT.

<u>Objective:</u> We must build a strong mathematics foundation for all QCSD students beginning in Kindergarten. Therefore, we need to select a rigorous, coherent and PA Core aligned mathematics program that will support our elementary students in building conceptual understanding, procedural and operational fluency, and the ability to navigate real world applications successfully.

Background:

- <u>Everyday Math 3</u> is outdated and <u>Everyday Math 4</u> is not aligned to the Common Core State Standards.
- Empower teachers and administrators to identify which math programs to pilot.
- Pilot each elementary math program in two grade levels per building.
- Develop decision criteria for making a recommendation to the Board.
- Select a program that minimizes the need to supplement outside resources.

Timeline:

2001 – Everyday Math purchased

2010 - Common Core State Standards published and PA adopted

2014 – PA Core Standards finalized

2014 – Major publishers have yet to completely align elementary mathematics programs to the Common Core State Standards. As a result, QCSDs search for an elementary math program was postponed.

April 2015 – New PA Core aligned PSSA was administered

May 2015 – 15 team members, consisting of teachers and administrators, evaluated 6 programs with a multi-part rubric and decided that the *Eureka Math* and *My Math* programs were both worthy of a full-year pilot

June 2015 – 2 grade levels at each building, consisting of 26 teachers, piloted either *Eureka Math* or *My Math*, with each building running both pilot programs

August 2015 – March 2016 – pilot teachers were provided with professional development, along with supports in and out of the classroom

March 2016 – April 2016 – Pilot observations occurring in buildings, teachers provided e-access to all materials to both pilot programs and hard resources (TEs, student workbooks, etc.) make a 6 day tour to each building (parents were provided access to all of these materials as well)

April 26, 2016 – Math Pilot Presentation Day consisting of pilot teacher and publisher representative presentations and building debriefs; teacher voting window opens

Late May 2016 – Teacher voting window closes

June 2016 – Board selects new math program

<u>'15-'16 Student Performance Data</u>: In 5 out of 6 grade levels, students who were exposed to *Eureka* showed more growth over the course of the year than students in *My Math*.

Teacher and Parent Surveys:

- 99% of elementary teachers and administrators voted for a program of choice
- Approximately 10% of parents voted/provided feedback on a program of choice

Teachers prefer *My Math* over *Eureka* (58%/42%) as do parents (48%/25%; 27% stated No Preference). Based on rationale, teachers selected *My Math* for the availability of materials, use of materials, ease of planning, ease of lesson flow and rigor/alignment to the PA Core, whereas teachers who selected *Eureka* did so for the data success of the pilot in addition to the rigor/alignment to PA Core.

EdReports: Out of the top 14 math programs, EdReports ranks our pilot programs as follows:

- Focus/Coherence: Eureka 1st; My Math 4th
- Rigor/Mathematical Practices: Eureka 2nd; My Math 3rd
- **Usability**: Eureka 2nd; My Math Not rated (it did not meet all of the criteria in the first 2 domains, and as a result, EdReports does not rate this category)
- Overall: Eureka is ranked #2 according EdReports and My Math is ranked #3

Costs:

	Year 1	Year 2	Year 3	Year 4	Year 5	Total
**Eureka	\$225,000	\$110,000	\$110,000	\$110,000	\$110,000	\$665,000
*Eureka	\$195,000	\$94,500	\$94,500	\$94,500	\$94,500	\$573,000
*My Math	\$322,000	\$17,000	\$17,000	\$17,000	\$17,000	\$390,000

^{**}price includes manipulatives, teacher editions, student workbooks, online professional development and printed assessments, fluency sheets and exit tickets

Regional Districts Implementing Eureka or My Math

- Eureka: Upper Dublin SD, Kutztown SD (pilot this year, piloted My Math last year and decided it didn't meet their needs)
- My Math: Bensalem SD (pilot this year), Pottstown SD, Norristown SD (purchase for next year), Easton SD

^{*}price includes manipulatives, teacher editions, student workbooks, and online professional development

Pros and Cons of Each Program:

Eur	eka	My Math			
Pros	Cons	Pros	Cons		
 Completely aligned to PA Core Considerable time spent on major topics Instructional suggestions for scaffolding content Built in online professional development for increasing content knowledge and instructional execution Online access Available in Spanish for 2016-2017 	 Cost (\$200K+ more) Will require more professional development for both teachers and parents Organization of ancillary materials 	 Well aligned to PA Core, with gaps Considerable time spent on major topics Instructional suggestions provided for scaffolding content Built in online professional development for increasing content knowledge and instructional execution Online access Available in Spanish 	 Less rigorous Fluency piece is worksheet based Based on teacher and admin feedback, this would require the purchase of an additional supplement in order to add rigor in selected grades More of a teacher centered program Publisher created Supplemental worksheets for differentiation 		
 Extremely rigorous Strong fluency routine built in everyday More of a student centered program Heavy in engagement and participation Data success in multiple grades Teachers played a role in the creation of the program; revisions made every year 		 Requires less professional development for both teachers and parents Cost 			