MEMORANDUM

DATE: March 14, 2018

TO: Board of Education

FROM: Dr. Don Haddad, Superintendent of Schools

SUBJECT: Elementary Math Adoption

RECOMMENDATION

That the Board of Education approves the adoption and purchase of ***enVisionmath2.0***, Pearson, © 2016, for elementary mathematics;

And, that the Board of Education approves a purchase contract to Pearson, not to exceed $1,660,000.00, for these textbooks and materials in FY18, based on the estimated student enrollment for 2018-2019.

We have budgeted $165,000.00 for staff training for initial professional development.

BACKGROUND

During the fall of 2016, an adoption committee made up of elementary teachers, Learning Services personnel, and administrators from across the District was formed to evaluate elementary mathematics materials, pilot the selected materials, and recommend materials for adoption by the St. Vrain Valley Board of Education. The committee reviewed the Colorado Academic Standards, current District curriculum, and current effective teaching practices in mathematics. Utilizing these resources, the committee developed an evaluation form for elementary mathematics materials.

Materials were solicited from four publishers for initial review and consideration, providing diversity in approaches and philosophy. Publisher presentations were conducted for three of the candidate programs, and a final selection was made for pilot. Forty teachers volunteered to pilot for the 2017-2018 school year, representing every District elementary school and a balance of grade levels.

Input was gathered from pilot teachers, students, parents, non-pilot teachers, and the community. After selecting a pilot program, piloting the program for a school year, and gathering input about the selection, the committee recommends ***enVisionmath2.0*** to the St. Vrain Valley Board of Education for adoption.

Public Review

A review of the candidate elementary mathematics materials was held February 2, February 6, and February 7, 2017 at the Learning Services Center. The event was advertised in the Longmont Daily Times-Call, District Leadership Update, and on our District web page. In addition, an email invitation was sent to District elementary teachers and administrators. The Curriculum Department also hosted a Community Input Meeting on December 6, 2016 to gather input from parents for pilot selections in process. During these reviews, responses were collected and were used as data in the pilot selections.

Pilot Summary

During the 2017-2018 school year, a total of 40 teachers and approximately 1,000 students participated in a yearlong pilot, representing all District elementary schools and grade levels. Analysis of pilot results:

Parent and Student Surveys

Pilot teachers conducted parent and student surveys as part of the pilot.

Student surveys were administered to all grade levels. The feedback from the student surveys was in support of the pilot materials and their impact on student learning this pilot year. In summary, students strongly agreed the lesson materials provided ample opportunities for practice and review, the problems sets were challenging, and the lesson videos helped them learn mathematical concepts. In addition, students liked how they were encouraged to solve problems in a variety of ways, and the majority of students reported they liked math using the pilot materials. Student comments included appreciation that the lesson materials appealed to a variety of learning styles, especially the digital resources that could be referenced outside of school or at a later time in class.

Parent surveys were made available to provide feedback. The parent feedback was very positive in support of the pilot materials, noting the rigor, the challenge it provides for students, and the amount and variety of problems included for students. Several comments represented positive changes in how their child's mathematical thinking and problem solving capabilities had improved and how their child's confidence in math and attitudes toward math had also positively increased. Numerous parents specifically commented on the quality of the mathematical explanations and example problems available (including the lesson videos), allowing them to help their students at home on assignments. Parent interaction and familiarity with the pilot materials and digital platforms was based on students showing their parents the program features, content, and navigation.

Summary of Strengths

Teachers

- Fully aligned to the Colorado Academic Standards; no supplementation needed for content

- Balance of conceptual understanding, procedural fluency, and applications, as required by the Colorado Academic Standards
- Independent practice sets include challenging application and critical thinking questions
- Flexibility available with lesson components, allowing teachers to plan instruction with many options
- More students reporting positive attitudes toward math this year
- Consumable workbooks for every student eliminated the need to photocopy all lesson materials
- Solve and Share prompts at the beginning of each lesson allow for divergent thinking and different solution strategies
- Engaging Visual Learning lesson videos that illustrate mathematical concepts and enhance teacher instruction
- Opportunity for in-class digital “Quick Check” assignments for formative assessment
- Opportunity for digital homework assignments (grades 3-5 only) that give students immediate feedback and offer help features to build independent learners
- Options to customize lesson content and digital assignments/assessments
- Formative assessment opportunities built into each lesson
- Homework pages available for every lesson in the student workbook
- Opportunities for teachers to incorporate the Standards for Mathematical Practice as part of instruction to support student mastery of standards and mathematical thinking
- Accessibility options (text-to-speech with digital lesson components) for students that need accommodations
- Data dashboard that allows teachers to check on student progress and completion of digital “Quick Checks” and/or assignments
- A variety of assessments available, both print and digital
- A variety of differentiation resources available to use for targeted reteaching, classroom centers, and Tier 1 intervention

Students

- Problems are clear and easy to understand
- Lesson videos help with sense making and understanding math concepts
- Clear lesson content and concrete examples with solutions
- Student workbook pages are appealing to students
- The Solve and Share at the beginning of each lesson allows students to explain their thinking and hear from other students
- A variety of problems ranging from basic to more challenging
- Challenging problems that encourage thinking and application
- Interesting real-life application problems to apply concepts
- The iPad and print games are engaging and fun

Summary of Weaknesses

- Parents were unfamiliar with how to navigate the digital platform, and some parents were unaware that digital resources existed that could be used to support math at home

Plans to Overcome Weaknesses

During the pilot, we have created a document that explains how to access lesson content digitally outside of school and the basic navigation for students and parents. Schools are very strongly encouraged to incorporate some formal presentation that models how to access the digital content as part of Back to School Night. Students are very competent in navigating the system, yet they do not always provide a demonstration for their parents or show all of the features available.

Budget

Basic Materials			
Kindergarten	**Quantity**	**Cost**	**Total**
Student Consumables & Digital License (7 years)	1,900	$107.47	$204,193.00
Teacher Materials & Digital License (7 years)	84	$0	$0
Classroom Centers Kit	84	$300.97	$25,281.48
Classroom Teacher Manipulatives	84	$44.47	$3,735.48
Classroom Student Manipulatives	1,260	$7.47	$9,412.20
Subtotal			$242,622.16
Grade 1	**Quantity**	**Cost**	**Total**
Student Consumables & Digital License (7 years)	1,900	$107.47	$204,193.00
Teacher Materials & Digital License (7 years)	81	$0	$0
Classroom Centers Kit	81	$300.97	$24,378.57
Classroom Teacher Manipulatives	81	$72.97	$5,910.57
Classroom Student Manipulatives	1,215	$14.47	$17,581.05
Subtotal			$252,063.19
Grade 2	**Quantity**	**Cost**	**Total**
Student Consumables & Digital License (7 years)	1,900	$107.47	$204,193.00

Teacher Materials & Digital License (7 years)	83	$0	$0
Classroom Centers Kit	83	$300.97	$24,980.51
Classroom Teacher Manipulatives	83	$87.97	$7,301.51
Classroom Student Manipulatives	1,245	$14.47	$18,015.15
Subtotal			$254,490.17
Grade 3	**Quantity**	**Cost**	**Total**
Student Consumables & Digital License (7 years)	2,100	$107.47	$255,687.00
Teacher Materials & Digital License (7 years)	87	$0	$0
Classroom Centers Kit	87	$300.97	$26,184.39
Classroom Teacher Manipulatives	87	$87.97	$7,653.39
Classroom Student Manipulatives	1,305	$14.47	$18,883.35
Subtotal			$278,408.13
Grade 4	**Quantity**	**Cost**	**Total**
Student Consumables & Digital License (7 years)	2,100	$107.47	$255,687.00
Teacher Materials & Digital License (7 years)	84	$0	$0
Classroom Centers Kit	84	$300.97	$25,281.48
Classroom Teacher Manipulatives	84	$77.47	$6,507.48
Classroom Student Manipulatives	1,260	$14.47	$18,232.20
Subtotal			$275,708.16
Grade 5	**Quantity**	**Cost**	**Total**
Student Consumables & Digital License (7 years)	2,200	$107.47	$236,434.00
Teacher Materials & Digital License (7 years)	78	$0	$0
Classroom Centers Kit	78	$300.97	$23,475.66
Classroom Teacher Manipulatives	78	$48.47	$3,780.66
Classroom Student Manipulatives	1,170	$11.47	$13,419.90
Subtotal			$277,110.22

Subtotal for Materials			$1,580,402.03
Shipping			$79,020.10
Professional Development			
Training, May 2018		$85,000	$85,000.00
Training, July 2018		$80,000	$80,000.00
Subtotal			$165,000.00
Grand Total for Elementary Mathematics Adoption			**$1,824,422.13**

There are no supplemental materials to be purchased as part of this adoption.

Ongoing Costs

The only ongoing costs are related to professional development and training for new teachers to St. Vrain Valley Schools and ***enVisionmath2.0***. This will be budgeted annually through the District mathematics budget.

Professional Development & Training

An initial two days of professional development has been planned for all elementary teachers in May and August, where teachers choose to attend one set of training days. Teachers have the option of extra duty pay or credit for training. All teachers who do not attend this training will be provided training in September. Ongoing professional development will be designed by the Elementary Mathematics Leadership Team, consisting mainly of pilot teachers. Elective training and support opportunities will exist during the 2018-2019 school year and subsequent school years.

Initial Training Cost – $165,000.00 for summer training.

Ongoing training and professional development costs to support new teachers will be budgeted annually through the District mathematics budget. Pearson will also supply additional professional development, as needed, as part of the allotted professional development days provided gratis with the adoption.

Gratitude

Heartfelt thanks to the pilot teachers, committee members, and administrators who spent many hours bringing this recommendation to the District:

Pilot Teachers

Kindergarten

Stacey Blick, Mead Elementary
Jennifer Stanich, Mead Elementary
Jennifer Cruger, Blue Mountain Elementary

Lauren Vargas, Mountain View Elementary
Julie Couch, Centennial Elementary
Kim Milbrath, Timberline PK-8

1st Grade

SuAnn Hassman, Black Rock Elementary
Angie Aragon, Timberline PK-8
Maridee Moll, Hygiene Elementary
Suzanne Simon, Alpine Elementary
Amie Spendlow, Centennial Elementary
Nancy Harris, Longmont Estates Elementary
Carol Schultz, Longmont Estates Elementary
Kylie Holmgren, Sanborn Elementary

2nd Grade

Amber Mault, Blue Mountain Elementary
Rachel Zierlein, Prairie Ridge Elementary
Val Agnello, Central Elementary
Rebecca Vogel-Pitts, Central Elementary
Jennifer Dalby, Red Hawk Elementary
Taura McClanahan, Northridge Elementary

3rd Grade

Shannon Brennan, Eagle Crest Elementary
Amy Hamblin, Prairie Ridge Elementary
Shira Dobson, Columbine Elementary
Cindy Anderson, Alpine Elementary
Susie Hidalgo-Fahring, Indian Peaks Elementary
Melinda Schluckebier, Fall River Elementary

4th Grade

Brian Huey, Burlington Elementary
Donna Weaver, Legacy Elementary
Stephanie Mathews, Northridge Elementary
Patty Carmichael, Fall River Elementary
Natalie Knapp, Rocky Mountain Elementary

5th Grade

Stephanie Streeter, Black Rock Elementary
Amy Stahl, Lyons Elementary

Kathleen Travis, Erie Elementary
Karen Altemus, Thunder Valley K-8
Ally Krupansky, Legacy Elementary
Pilar LaFaye, Niwot Elementary
Kelly Addington, Longs Peak Middle School
Melissa Parsons, Prairie Ridge Elementary

Adoption Committee Members (non-pilot teachers)

Teachers

Sara Foster-Barone, Lyons Elementary
Jessicca Shaffer, Longmont Estates Elementary
Haley Potochnick, Red Hawk Elementary
Lynn Maybee, Northridge Elementary
Jennifer Crill, Timberline PK-8
Barb Van Winkle, Niwot Elementary
Michael Stover, Legacy Elementary

Principals

Renee Collier, Hygiene Elementary
DeAnn Dykes, Black Rock Elementary
Stephen Hoel, Blue Mountain Elementary

Learning Services Personnel

Dana Curton, Student Services Instructional Coach
Shannon Stimack, Digital Curriculum & Assessment Support Specialist