Recommendation for Adoption
Elementary Mathematics Curriculum Resources

Rationale:

A new elementary math series will provide the following advantages for our students and teachers:

- Alignment with the rigor and focus of our identified priority Common Core State Standards for Math in grades K-5
- Integration of math concepts and skills with math practices (inquiry & problem solving, reasoning, modeling, precision, using digital tools, and structure)
- Opportunities to express thinking by clarifying, justifying, interpreting, and representing thoughts

Process:

In order to arrive at this recommendation, our elementary math curriculum committee engaged in the following process over the past two years.

- **September 2017 – March 2018**
  - Common Core State Standards for Math for grades K-5 were reviewed in order to determine 12-14 priority standards for each grade. Priority standards are those which are to be mastered at grade level and for which local assessments should be developed in order to monitor student achievement and provide intervention as needed.
  - Priority standards were 'unpacked' in order to create common understanding of their meaning and identify the critical teaching and learning framework for a new elementary math series.
  - Teachers serving on the committee independently reviewed sample materials from five publishers of K-12 math series (*EnVision Math 2.0*-Pearson; *My Math*-McGraw-Hill; *Go Math! and Into Math*-Houghton, Mifflin, Harcourt; *Eureka Math*-Great Minds; and *Bridges Math Program*-The Math Learning Center. The committee then met to share and review their assessments in order to select two series for piloting.
- **April – November 2018**
  - *Go Math!* was piloted in April-May 2018
  - *EnVision Math 2.0* was piloted in October-November 2018
- **December 2018**
  - Pilot teachers independently completed a final assessment of both pilot series with respect to the effectiveness of: the math content and instructional design; the student materials and resources; and, the teacher materials and resources. The summary of their independent assessments of the two pilot series is attached.
  - Pilot teachers met to share and review their assessments. The elementary math curriculum committee then met to determine their recommendation.
- **January-March 2019**
  - After reaching consensus in mid-December on recommending *Go Math!* for adoption, the committee learned from the publisher of *Go Math!* that an evolved version of *Go Math!* called *Into Math 2020* would be released in time for the 2019-2020 school year. In light of this information the committee expressed interest in reviewing *Into Math 2020* before finalizing an adoption recommendation.
  - Consultation with an HMH math specialist coupled with committee review of sample *Into Math 2020* materials resulted in the following summary of the improvements that have been incorporated into the *Into Math 2020* by HMH based on action research feedback from teachers in classrooms across the nation as they implemented *Go Math!*
    - More versatile lesson designs for addressing specific foundational math content
    - Embedded leveled local assessment tools for identifying learning gaps coupled with student resources for addressing targeted gaps
    - Ready to use Guided Math format with instructional supports for both groups and centers
    - New digital platform designed to be more intuitive for teachers and students

- A status report of the elementary math series adoption process was presented to the Curriculum, Instruction, Assessment Committee of the Board of Education on March 6th. The CIA committee authorized the elementary math curriculum committee to bring their final recommendation forward to the Board of Education at its April meeting.
- Committee members reviewed and field tested sample *Into Math 2020* materials at all grade levels. On March 18th committee members conferred with an HMH math specialist via webex for a demonstration of the new digital platform and to have questions from their review of the sample materials answered. The committee then unanimously finalized their recommendation.

Recommendation:

The *Into Math 2020* series published by Houghton Mifflin Harcourt is recommended for adoption as our elementary math series. The following features of the series stand out as key reasons for our recommendation.

- Opportunities for students to express thinking by clarifying, justifying, interpreting, and representing their thoughts
- Explicitly identifies expected prior student learning and provides tools for addressing gaps
- Alignment of scope, sequence, and pacing with school year and high stakes testing timelines
- Promotes thoughtful student engagement with learning content, including real world connections, inquiry components, graphics, and illustrations
- Includes a rich source of examples and problems (both guided and independent practice-homework) for concept and skill development
- Learning activities address students' varying learning styles (e.g. visual, auditory, kinesthetic)
- Provides ideas for instruction (e.g., leveled questioning strategies and lesson pacing)

Cost Summary

- Student and Teacher Resources: $116,713.82

Includes both print and digital resources for students, classroom teachers, and special education teachers

- Professional Development: $ 8,400 - $16800
  Includes Getting Started training in June 2019, and continued instructional strategies training for Institute Days in August and October 2019

District Elementary Math Curriculum Committee

Jenny Phimmacheck	K	MES
Shannon Eaton	1	MES
Megan Laing	2	PGES
Carrie Norder-Pagan	3	PGES
Elizabeth Saveley	4	CES
Sandy Moon	5	NBUE
Elaine Ahrens	Spec Ed	NBUE

Elementary Math Pilot Teachers

All committee members		
Lynn Brody	K	PGES
Julie Winebaugh	1	PGES
Shannon Harkness	2	CES
Suzi Parris	3	MES
Codelyn Willis	4	PGES

Attachment

Pilot Assessment Summary

Rating Scale

5 **Exceeds Expectations**	4 **Meets Expectations**	3 **Adequate** ***minimal supplement needed***	2 **Needs Improvement** ***supplement needed***	1 **Inadequate** ***considerable supplement needed***

Math Content and Instructional Design

Criteria	*GO Math! Rating*	*EnVision Math 2.0*
1. Emphasis on rigor of Common Core math content standards 2. Emphasis on rigor and continuous integration of Common Core math practice standards 3. Lessons and units build and integrate meaningfully toward achievement of identified standards 4. Opportunities for students to express thinking by clarifying, justifying, interpreting, and representing their thoughts 5. Explicitly identifies expected prior student learning and provides tools for addressing gaps 6. Provides guidance to differentiate instruction including both extra support and enrichment 7. Alignment of scope, sequence, and pacing with school year and high stakes testing timelines 8. Emphasis on District Priority Standards in scope, spiraling, unit organization, and pacing	4.05	3.24

Student Materials and Resources

Criteria	*GO Math! Rating*	*EnVision Math 2.0*
9. Promotes thoughtful student engagement with learning content, including real world connections, inquiry components, graphics, and illustrations 10. Includes a rich source of examples and problems (both guided and independent practice-homework) for: ● Concept and skill development ● Problem solving ● Computational fluency 11. Included quality and quantity of resources needed for adapting instruction for: ● Guided math ● Special student populations (ELL, Spec Ed) 12. Readability 13. Learning activities address students' varying learning styles (e.g. visual, auditory, kinesthetic) 14. Included engaging interactive tools, virtual manipulatives, and family friendly electronic resources for students 15. Includes electronic tutors for students to access additional instruction and examples	3.98	2.97

Teacher Materials and Resources

Criteria	*GO Math! Rating*	*EnVision Math 2.0*
16. Provides ideas for instruction (e.g., leveled questioning strategies and lesson pacing) 17. Provides insights and guidance for linking student sense-making and problem solving to depth in learning 18. Embeds formative assessment processes throughout lessons that evaluate student learning to inform instruction 19. Includes means for customized instructional follow-up based on assessment results 20. Facilitates providing multiple opportunities for students to master content 21. State high stakes testing practice and problems solving embedded throughout curriculum 22. Includes electronic resources for teachers to increase their understanding of mathematics content, practices, and instructional strategies 23. Quality and quantity of assessment (pre-, formative, summative, and self-) aligned with the curriculum and available in both print and electronic formats 24. Quality, quantity, and rigor of problems for assessing District Priority Standards available in both print and user friendly, electronic question bank formats	4.01	3.02
Overall Rating	4.01	3.07