

5th, 6th, 7th and 8th Grade Mathematics Board Proposal

LCS Board of Education

Resource Adoption for 5th–8th Grade Math

April 3, 2024

Board Policy 2510 Adoption of Textbooks

The Board of Education shall approve all textbooks used as part of the educational program of this District. "Textbook", for purposes of this policy, shall mean the principal source of instructional material for any given course of study, in whatever form the material may be presented, that is available or distributed to every student enrolled in the course.

The Superintendent shall be responsible for the selection and recommendation of textbooks for Board consideration. In considering the approval of any proposed textbook, the Board will weigh its decisions based on recommendations related to:

- A. suitability for the maturity level and educational accomplishment of the students who will be using the material;
- B. freedom from bias;
- C. relationship to the curriculum adopted by the Board;
- D. relationship to a continuous multigrade program;
- E. impact on community standards;
- F. manner of selection;
- G. cost;
- H. appearance and durability.

The Superintendent shall develop administrative guidelines for the selection of textbooks that includes effective consultation with professional staff members at all appropriate levels.

Identified Needs for 5th-8th Grade Math Pilot

Current **Math** Textbook

- Current contract expired
- Textbook is no longer published
- Data indicates a need for updated curriculum
- 5th-8th grade resource supports district grade level reconfiguration plans

Purpose of Study

Lapeer Community School's Textbook Evaluation process studies updated curriculum and materials to determine if new resources provide the following:

- Adequate physical format
- Dictation and Style
- Adaptability
- Alignment to content and state standards
- Utility (providing aids to students)
- Authorship
- Readability

Refer to LCS's Textbook Evaluation Sheet Study Form 2

Content Considerations for Standard Alignment

Math

- Mathematical Practices application embedded
- Aspects of investigation digitally and in text
- Questioning techniques
- Formative assessments along the way

Standards for Student Mathematical Practice

- 1 Make sense of problems and persevere in solving them.**
Keep on going!
- 2 Reason abstractly and quantitatively.**
Write a story for the mathematical equation.
 $\frac{1}{2} \times 4$
Do Juan exercises $\frac{1}{2}$ hour a day for 4 days. How many total hours does he exercise?
Think what makes sense.
- 3 Construct viable arguments and critique the reasoning of others.**
Talk and explain.
 $\frac{2}{4} = \frac{1}{2}$ I agree.
- 4 Model with mathematics.**
Show your thinking.

 $\frac{1}{2} \times 4 = 2$ or $4 \times \frac{1}{2} = 2$
- 5 Use appropriate tools strategically.**
Use the right tools.
 $3 \times 2 = 6$
- 6 Attend to precision.**
Check your work.
symbol: equals (the same as)
 $120 \text{ minutes} = 2 \text{ hours}$
units of measure
- 7 Look for and make use of structure.**
See the pattern or connection.
 $8 + 4 = 12$
- 8 Look for and express regularity in repeated reasoning.**
See the pattern or connection.

5th - 8th Grade Middle School Math Pilot Resources

Resource: Reveal 2020

Publisher: McGraw Hill

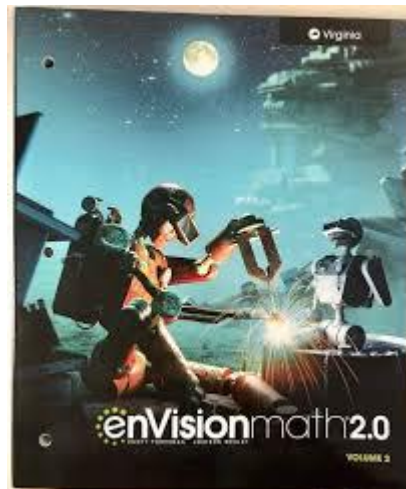
Dates Used: August - December



Resource: enVision 2024

Publisher: SAAVAS

Dates Used: January to current



Math Strengths

Reveal McGraw Hill:

- Rigor, heavy amounts of reading and problem solving
- Differentiation is provided
- Pictures at the beginning of the lesson, number routine and launch questions give students opportunity for discussion
- Daily error analysis

Envision SAAVAS:

- Rigor, encourages readability for students
- Scaffold examples allow access points to the mathematics for all students
- Differentiation includes a unit readiness assessment or “Get Ready” section
- Ability to identify students understanding of prerequisite skills
- Data from the unit readiness can be matched with an integrated intervention analysis to support students where they are and where we want them to go
- Provides reteach practice for small groups, including extension activities
- Interesting and challenging to students. A variety of story problems with pictures, and graphs, providing opportunities for discussion and launch
- Aligns with launching the topic by using the Solve and Discuss It or the ACT Math providing opportunities for students to discuss and problem solve
- Opportunities for direct instruction to be imbedded into the needed independent practice and closing a lesson with the student summary (similar to launch, explore and summarize lesson format),
- Frontloading vocabulary

Math Weaknesses

Reveal McGraw Hill:

- Durability of binding, pages fall out, tearing of pages
- Quality of printing - small print
- Type size and legibility, not enough space for students to do their work
- No spot for warm up in the student book, the launch is only digital and not part of the student book
- For new teachers, a lot of information to understand to identify background and common misconceptions
- Readability for intended students
- A lot of reading, wordy problems, difficulty for struggling readers
- Problem solving difficult for 50% of the students
- Review needed before lessons
- When exporting digital documents it changes the formatting
- Teachers need to supplement
- Order of units
- K-5 2020 version is moving to a 6-8 2025 version

Envision SAAVAS:

- Digital assessments cannot be adjusted or scored - teachers have to download and adjust the word copy, making it a print only option.
- Modifications need to be made for points per multiple step problem
- Digital practice is different from the book
- Long 5th grade assessments

Math Textbook Evaluation Rating- Scores

Reveal McGraw Hill

- Adequate physical format - 35
- Dictation and Style - 8
- Adaptability - 17
- Content - 35
- Utility (providing aids to students) - 46
- Authorship - 8
- Total - 163

Envision SAAVAS

- Adequate physical format - 40
- Dictation and Style - 13
- Adaptability - 20
- Content - 47
- Utility (providing aids to students) - 66
- Authorship - 7
- Total - 193

5-8 Math Quotes

- 1148 Textbook and digital bundle
- 18 Teacher resources
- Professional Development
- Shipping

Reveal McGraw Hill

- Student book + Digital Learning Bundle: \$151
- Teacher Access: \$446-\$683
- Professional Development: \$3500
- Shipping: \$4830
- Total 6 year quote (including S&H):
\$177,008.12 for 2020 edition (what we piloted)
\$187,979.29 for 2025 edition

Envision SAAVAS

- Student book + Digital learning: \$147
- Teacher Resources: \$218
- Manipulative Kits: \$119-\$238
- Professional Development: \$1500
- Shipping: \$17,593
- Total 6 year quote (including S&H):
\$198,755.38

Math Recommendation

Based on the experience that students and teachers have had with both texts, it is encouraged that the LCS School Board approve the recommendation for the

Envision by SAAVAS.

The pilot ratings score high in regards our philosophical beliefs required for a math resource:

- Alignment to mathematical practices
- Formative assessments
- Multiple opportunities for differentiation
- Problem solving and readability