

# CURATE

Curriculum  
Reviews  
and Ratings by Teachers

---

|                                                       |    |
|-------------------------------------------------------|----|
| HELLO AND WELCOME TO A CURATE REPORT!                 | 02 |
| CURATE REVIEWS AND REPORTS                            | 04 |
| CURATE RATINGS KEY                                    | 06 |
| FULL REPORT: OPEN UP RESOURCES 6-8 MATH (3RD EDITION) | 07 |
| ALIGNMENT TO MASSACHUSETTS STANDARDS                  | 09 |
| STRENGTHS AND AREAS FOR GROWTH                        | 12 |
| WHAT THE PUBLISHER SAYS                               | 24 |
| DIVERSE REPRESENTATION                                | 25 |
| PROFESSIONAL LEARNING                                 | 26 |
| PRODUCT SPECIFICATIONS                                | 28 |
| RESPONSE TO REPORT                                    | 29 |
| NOTE                                                  | 31 |

---

# HELLO AND WELCOME

## TO A CURATE REPORT!

The CURriculum RATings by TEachers (CURATE) project supports the Department's Curriculum Matters: IMplement MA initiative to strengthen curriculum in Massachusetts through educator access to high-quality instructional materials (HQIM) and curriculum-based professional learning (CBPL) to support skillful use. The initiative is rooted in the following theory of action:

- *If* LEAs and prep providers have the information and support they need to give in-service and pre-service teachers the tools to access, evaluate, adopt, and implement high-quality, standards-aligned, culturally responsive curricular materials
- *and if* sustainable and collaborative professional learning structures help in-service and pre-service teachers use those materials to orchestrate student learning experiences skillfully
- *then* teacher and student experiences, and ultimately student outcomes, will improve.

Through the CURATE project, the Department convenes Massachusetts teachers to review and rate evidence of alignment and quality of comprehensive core curricular materials. The CURATE report reflects the panel's deliberations and consensus ratings; it is provided as a resource to support local education agencies to make informed local decisions about curricula, as part of a robust, inclusive, and equity-centered curriculum review and selection process with input from diverse stakeholders, including families (see IMplement MA Guide: Phases 1 and 2).

High-quality instructional materials are aligned to the Massachusetts content, practice, and language development standards; are culturally responsive; and exhibit a coherent sequence of target skills, instructional practices, and understandings. They also are accessible to all students, including students with disabilities, students working above and below grade level, English learners, and students of other diverse identity markers. Ultimately, to actualize the Educational Vision for Massachusetts and cultivate deeper learning for students, HQIM should

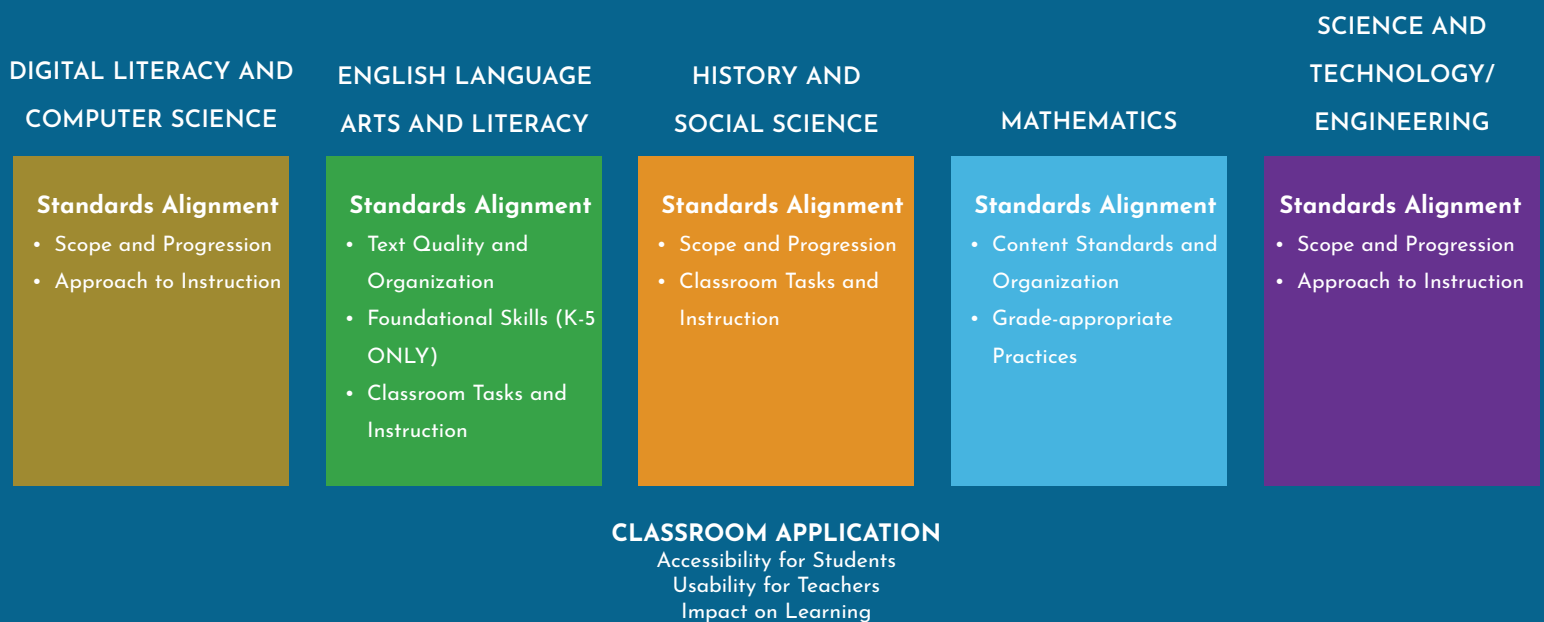
strongly support teachers in their everyday work to be inclusive and culturally and linguistically sustaining.

Although CURATE-reviewed curricular products may be found to meet DESE's definition of "high quality," it does not mean the curricular product is perfect (see "CURATE Ratings Key"). CURATE evaluates the instructional design and content of the materials but does not and is not intended to measure required curriculum-based professional learning and other supportive school/district systems and structures that impact implementation quality. The power within high-quality instructional materials is amplified by effective educators who are supported to develop the curriculum literacy to facilitate learning experiences that enable all learners to excel at grade level and beyond.

Local educational agencies should review CURATE reports and use the information therein to investigate the extent to which the specific product will well serve and strongly support students and teachers based on the local education agency's local assets, needs, and equity priorities.

# CURATE REVIEWS AND REPORTS

Each CURATE panel uses a content-specific rubric for their review of evidence of alignment and quality, coherent with the [MA Curriculum Frameworks](#) and [Standards of Effective Teaching Practice](#). The content rubric guides each panel's review in two domains: Standards Alignment (specific to each content rubric) and Classroom Application (consistent across all content rubrics).



**Standards Alignment:** Materials eligible for a CURATE review have met a minimum threshold for alignment to national college and career-ready standards, which overlap with the Massachusetts standards, with a few MA differences in emphasis and priorities. These differences or priorities are captured in the relevant CURATE content rubric indicators (e.g., authentic application of grade-level language standards in ELA/Literacy, student academic discourse in mathematics, and affirming and valuing diverse identities, backgrounds, and perspectives in all content areas).

Panel Review Guiding Question: *What are the strengths and areas for growth in the materials when considering the extent to which they meet expectations for alignment to Massachusetts college- and career-ready content, practice, and English language development standards?*

**Classroom Application:** This domain pertains to how well the materials support diverse learners (e.g., students with disabilities, multilingual learners, students working above and below grade level, and students of other diverse identity markers) and the teachers (new and experienced) tasked with doing so (see MA Teaching Standards I and II). Schools/Districts in the process of investigating which available high-quality instructional materials (HQIM) would best serve and strongly support students and teachers based on their local equity priorities, assets, and needs should use the information in this domain as a starting place for identifying distinctions among standards-aligned products.

Panel Review Guiding Question: *What are the strengths and areas for growth in the materials when considering the extent to which they meet Massachusetts expectations for well serving and strongly supporting accessibility for diverse learners and usability for busy teachers?*

**Culturally and Linguistically Sustaining Practice:** What sets CURATE apart is that reviews have always been rooted in Massachusetts equity priorities (diversity in representation, accessibility, inclusion), particularly for students from historically underserved groups and communities, coherent with the Educational Vision. Embedded throughout each content rubric in both domains are indicators and guidance that inform educators' consideration for diverse learners served in schools/districts across Massachusetts. A summary of findings about the extent to which the reviewed product (through design, approach, texts, tasks, practices, guidance, and resources) support teachers in their everyday work to provide grade-appropriate instruction that is inclusive and culturally and linguistically sustaining will be included with reports published during SY24-25 and beyond.

Panel Review Guiding Question: *To what extent do the materials meet expectations for alignment to Massachusetts college and career-ready content standards AND support inclusive and culturally & linguistically sustaining practice?*

# CURATE RATINGS KEY



**MEETS EXPECTATIONS:** Most or all evidence indicates high quality; little to none indicates low quality. Materials may not be perfect, but Massachusetts teachers and students would be **well served and strongly supported** by them.



**PARTIALLY MEETS EXPECTATIONS:** Some evidence indicates high quality, while some indicates low quality. Teachers in Massachusetts would **benefit from having these materials** but need to supplement or adapt them substantively to serve their students well.



**DOES NOT MEET EXPECTATIONS:** Little to no evidence indicates high quality; most or all evidence indicates low quality. Materials **would not substantively help** Massachusetts teachers and students meet the state's expectations for teaching and learning.



**NOT APPLICABLE (N/A):** Materials are *without* foundational skills and will need to be *paired with* a strong foundational skills resource to address all components of the core literacy block (see [Mass Literacy](#)). This rating is provided only to ELA/Literacy K-5 Foundational Skills, when applicable.



**NOT RATED:** Narrative information is provided.

# FULL REPORT

## 6-8 MATH

# OPEN UP RESOURCES

### 3RD EDITION

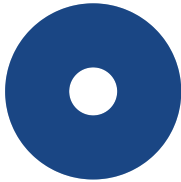
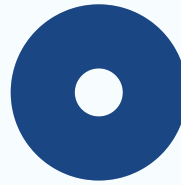
*Open Up Resources Math* is a digital and print resource for Grades K-12. Please see the [Open Up Resources](#) website and the publisher-provided information later in this report for product specifications. Grades reviewed: 6-8



*“Open Up Resources 6-8 Math materials are very user-friendly. The lessons progress coherently, and learning builds with clear connections across reasoning, understanding and problem solving.”*

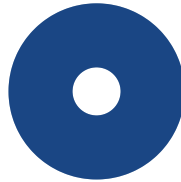
*Massachusetts educator*

# STANDARDS ALIGNMENT



**CONTENT STANDARDS  
AND ORGANIZATION**

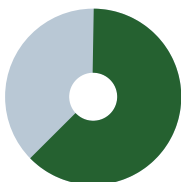
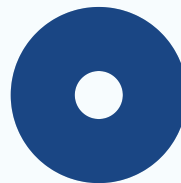
---



**GRADE-APPROPRIATE  
PRACTICES**

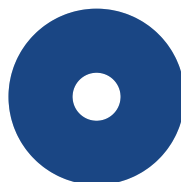
---

# CLASSROOM APPLICATION



**ACCESSIBILITY FOR  
STUDENTS**

---



**USABILITY FOR  
TEACHERS**

---



**IMPACT ON  
LEARNING**

---

# ALIGNMENT TO MASSACHUSETTS STANDARDS AND SUPPORTING INCLUSIVE AND CULTURALLY & LINGUISTICALLY SUSTAINING PRACTICE

| <i>MA Priorities</i>              | <i>The materials include/<br/>provide...</i>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <i>Teachers will need to augment<br/>materials with integrity to<br/>include/provide...</i>                                                                                                                                                                                                                                                                         |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| MA-Specific Mathematics Standards | <ul style="list-style-type: none"> <li>• Intentional progression that systematically builds upon grade-level standards and students' knowledge</li> <li>• Explanations of how lessons, units and grades align with MA-specific content standards</li> <li>• Narratives that link content standards to Standards for Mathematical Practice</li> <li>• Units that reinforce conceptual understanding and procedural fluency in balanced and effective ways</li> <li>• Synthesis activities that provide multiple means of representation for problem solving</li> </ul> | <ul style="list-style-type: none"> <li>• Massachusetts-specific standards 6.RP.A.3e, 6.SP.B.4a, 7.EE.B.4c to ensure alignment and support for state-specific learning goals</li> <li>• Real-world context and application of concepts that are relevant to the lives, identities, and home backgrounds of culturally and linguistically diverse students</li> </ul> |
| Students with Disabilities (SWDs) | <ul style="list-style-type: none"> <li>• Opportunities for students to explain choices of strategy, draw a model, and justify solutions in written, pictorial, verbal, and non-verbal form</li> <li>• Varied approaches to learning tasks over time and variety in how</li> </ul>                                                                                                                                                                                                                                                                                     | <ul style="list-style-type: none"> <li>• Classroom and testing accommodations such as pre-annotated text, text-to-speech, and translations</li> <li>• Structured small-group scaffolds (vocabulary previews, manipulatives/visuals, extended processing time, and sentence frames) during peer-activity lessons</li> </ul>                                          |

| MA Priorities                               | The materials include/ provide...                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Teachers will need to augment materials with integrity to include/provide...                                                                                                                                                                                                        |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                             | <p>students are expected to demonstrate learning</p> <ul style="list-style-type: none"> <li>• Applied principles of Universal Design for Learning (UDL) to support students' development of language and cognition</li> <li>• Scaffolded opportunities for students to engage with tables, graphs, drawings, diagrams, and models as part of their problem-solving process</li> <li>• Digital and physical tools to enhance understanding and engagement with key concepts</li> </ul> | <p>so students with disabilities can fully engage in discourse and problem-solving</p>                                                                                                                                                                                              |
| English Learners (ELs)                      | <ul style="list-style-type: none"> <li>• Teacher guidance for instructional routines that develop precision of mathematical language</li> <li>• Scaffolding that includes sentence starters and key vocabulary</li> <li>• Math Language Routines (MLR) help students in group communication</li> </ul>                                                                                                                                                                                | <ul style="list-style-type: none"> <li>• Differentiated support for students at various levels of English language proficiency in alignment with English language development standards</li> <li>• Access to materials in students' home language to facilitate learning</li> </ul> |
| Students Working Above or Below Grade Level | <p><b>Working Above Grade Level</b></p> <ul style="list-style-type: none"> <li>• Link content standards from previous grades ("Building On") and grade-appropriate standards ("Addressing") to learning targets within each lesson, ensuring vertical alignment and</li> </ul>                                                                                                                                                                                                        | <p><b>Working Above Grade Level</b></p> <ul style="list-style-type: none"> <li>• Additional materials including enrichment tasks, advanced practice, and digital resources to support students who are in need of additional challenge</li> </ul>                                   |

| MA Priorities                         | The materials include/ provide...                                                                                                                                                                                                                                                                                                                                                                                                                                | Teachers will need to augment materials with integrity to include/provide...                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                       | <p>clarity about what is being taught.</p> <ul style="list-style-type: none"> <li>• Optional activities that encourage students to explain procedures and involve multiple key concepts</li> </ul> <p><b>Working Below Grade Level</b></p> <ul style="list-style-type: none"> <li>• Pre-unit assessments for teachers to assess prerequisite skills and understandings</li> <li>• Varied opportunities and means for students to demonstrate learning</li> </ul> | <p><b>Working Below Grade Level</b></p> <ul style="list-style-type: none"> <li>• Instructional support for students working below grade level that extend beyond re-teaching prior content</li> <li>• Rubrics, exemplary oral responses, or peer checklists to help set clear expectations for students</li> </ul>                                                                                                                                                                                                                                                                                                                                                     |
| Diverse Representation & Perspectives | <ul style="list-style-type: none"> <li>• Intentional selection of names and genders to affirm and validate diverse perspectives</li> <li>• Adult-level explanations and examples of concepts beyond the current course for teacher to improve their own knowledge of the subject</li> <li>• Explanations of the instructional approaches of the program and identification of the research-based strategies</li> </ul>                                           | <ul style="list-style-type: none"> <li>• Real-world context and application of concepts that are relevant to the lives, identities and home backgrounds of culturally and linguistically diverse students</li> <li>• Additional in-depth opportunities to explore and elevate diverse student backgrounds such as by incorporating students' home language and culture into the classroom</li> <li>• Additional student representation within materials, including representation of diverse gender identities</li> <li>• Further opportunities for teachers to reflect on their biases and critically engage with culturally responsive teaching practices</li> </ul> |

# STRENGTHS AND AREAS FOR GROWTH

## STANDARDS ALIGNMENT

### Content Standards and Organization



Materials are well aligned with the Massachusetts curriculum framework and progress in a coherent manner, although teachers will need to supplement select topic areas within the Massachusetts-specific standards and crosswalk. Content progresses coherently while building conceptual understanding and procedural fluency. Teachers will need to supplement materials to include real-world application of learning that is relevant to culturally and linguistically diverse students.

### Strengths

- Content progresses coherently from unit to unit and grade to grade in overall alignment with Massachusetts standards. Materials provide “Unit Overview” and “Lesson Narratives” that cite clusters and/or domains from previous grades through examples of tools, tasks and language addressed throughout the unit. Tasks are consistently grade appropriate; each task addresses two or more clusters and/or two or more domains. Units include narratives that link Content Standards to Standards for Mathematical Practice (SMP), which explains the role of the standards in the overall series (EdReports, 1B). In Grade 7, Unit 5, the “Unit Overview” explains types of numbers and operations that are appropriate for the grade. Each lesson begins with “Lesson Narratives” that explain how content standards connect to prior and future lessons, as well as SMP. Materials also include synthesis tasks that integrate concepts across multiple clusters and domains to build on previous learning through peer learning.
- Units reinforce conceptual understanding and procedural fluency in balanced and effective ways. Units develop conceptual understandings of specific clusters, devoting attention to standards designed to develop procedural skill and fluency (EdReports, 2A). In Grade 7, Unit 5, Lesson 4, the lesson plan requires students to notice patterns through multiple representations of a situation. Students noticed similarities and differences between an equation and diagram. This exercise connects conceptual models to procedural fluency. In Grade 6, Unit 4, Lesson 4, students encounter real-world applications of percentages, beginning with pictures of various clothing. In the following lessons, students create tape diagrams to represent percentages of clothing types, represent them in fraction and decimal form, and explain their rationale.

## Areas for Growth

- While most Massachusetts-specific standards are addressed, teachers will need to supplement materials to explicitly address the Massachusetts-specific standards 6.RP.A.3e, 6.SP.B.4a, 7.EE.B.4c, as they are not explicitly covered within the core materials.
- Teachers will need to supplement materials to provide real-world context and application of concepts that are relevant to the lives, identities and home backgrounds of culturally and linguistically diverse students. In Grade 6, Unit 8, Lesson 5, a real-world problem engages students about the speed of typing on a keyboard. This example is primarily salient to students who have access to digital technology. Students are likely to recognize real-world applications, but generic objects (a clarinet, a keyboard, a string) do not promote awareness of equity, power, and/or anti-racism. The situations illustrate real-world experiences relevant to youth, but not applications of mathematics in career.

# STANDARDS ALIGNMENT

## Grade-Appropriate Practices



Materials encourage students to use multiple representations when solving problems and explain their thinking to others and evaluate others' thinking. Instructional routines also encourage students to justify solutions to problems using clear oral and written communication. Materials include guidance on tools that improve access for students who need additional support with visual-spatial processing and conceptual processing, as well as instructional routines for multilingual learners.

### **Strengths**

- Materials encourage students to use multiple representations when solving problems. Lesson activities include frequent opportunities for students to explain choices of strategy, draw a model, and justify solutions in written, pictorial, verbal, and non-verbal form. In Grade 7, Unit 7, Lesson 5, students begin a series of lessons focused on creating shapes under given conditions. Throughout this sequence, they explore the conditions necessary to determine a unique figure, building a foundational understanding for future work with congruence in Grade 8 and high school. These lessons reinforce the Grade 6 concept that two polygons are identical if they align exactly when placed on top of each other. In this lesson, students experiment with constructing polygons using cardboard strips and metal fasteners, varying the number and lengths of sides. The goal is to help them recognize that some sets of constraints allow for multiple possible shapes, while others result in a single unique shape or make construction impossible. In the following lesson, students formulate such a rule for triangles. This task requires students to move among multiple representations to discover and explain connections between different forms to deepen their understanding. Materials also provide varied and scaffolded opportunities for students to engage with tables, graphs, drawings, diagrams, and models as part of their problem-solving process.
- Materials encourage students to justify solutions to problems using clear oral and written communication. In Grade 8, Unit 7, Lesson 2, the “Lesson Launch” provides guidance on ensuring students can independently explore grade-level concepts. The materials include guidance on tools that improve access for students who need additional support with visual-spatial processing and conceptual processing. These routines encourage the use of multiple representations to solve problems, critique the reasoning of others, and model with mathematics to address Standards for Mathematical Practice (SMP) 1, 3, and 4.
- Materials encourage students to solve problems through strategic selection and the use of a range of appropriate physical and digital tools. Instructions within the materials explicitly note that digital

apps and simulations should not be a replacement for physical tools. In Grade 6, Unit 1, Lesson 1, teacher guidance is provided to support students in using a geometry toolkit which includes a range of tools, such as tracing paper and pattern blocks, throughout the unit. Materials support the intentional development of modeling with mathematics (EdReports, 2G). In Grade 8, Unit 2, Lesson 1, students explore scaling and proportional relationships and are asked to use their own bodies and eyeballs to check their answers. This activity encourages the use of real-world objects with proportional relationships as pictorial models for determining the reasonableness of an answer.

- Materials encourage students to explain their thinking to others and evaluate others' thinking. In Grade 8, Unit 7, Lesson 2, the "Lesson Launch" provides guidance on ensuring students can independently explore grade-level concepts. Materials include guidance on tools that improve access for students who need additional support with visual-spatial processing and conceptual processing, as well as an instructional routine for multilingual learners. In Grade 6, Unit 1, Lesson 8, the "Collect and Display" routine is used to capture students' initial language and representations as they explore strategies for finding the area of a triangle before formalizing a formula. As students work through the task, the teacher circulates to observe and document different approaches, such as decomposing triangles or enclosing them within rectangles. Photographs or sketches of these strategies are added to a display, which continues to evolve as students confer with partners. During the whole-class discussion, students are encouraged to reference the display, using the collected language and representations to articulate their thinking. These routines encourage the use of multiple representations to solve problems, critique the reasoning of others, and model with mathematics to address SMP 1, 3, and 4. In Grade 7, Unit 6, Lesson 4, students discuss multiple strategies to solve an equation. They are encouraged to notice structures of equations that lead to the same solution, before explaining and evaluating each other's thinking (SMP7).
- Materials provide opportunities for students to participate in regular conversation and collaboration with peers focused on lesson content. Students engage in small-group discussions that cover key mathematical concepts through Standards for Mathematical Practice. In Grade 6, Unit 7, Lesson 3, an instructional routine called "Compare and Connect" encourages students to compare signed numbers in a real-world context to accurately use inequality signs (SMP2). Students evaluate and critique another's reasoning in small groups (SMP3). In Grade 6, Unit 5, Lesson 2, students engage in academic discourse while working in small groups of three or four. Using visual diagrams and vertical calculations, students explore addition and subtraction and develop their reasoning skills. The lesson provides multiple opportunities for students to compare and contrast different approaches, explain their thinking both verbally and through various representations, and collaboratively navigate challenges. Throughout lessons, students are encouraged to reflect on their process for selecting a tool, and then justifying the suitability and purpose of a tool in written and oral form.

# Areas for Growth

- None

# STRENGTHS AND AREAS FOR GROWTH

## CLASSROOM APPLICATION

### Accessibility for Students



Materials provide for varied means of accessing content and demonstrating learning, with digital and physical tools used to enhance student accessibility to grade-appropriate content. Although materials provide for varied means of demonstrating learning, some peer activities may need to be adapted to provide opportunities for student choice and extension activities. Teachers will need to supplement materials to differentiate support for students at different levels of English proficiency, affirm diverse identities, and challenge existing narratives.

### Strengths

- Materials provide for varied means of accessing grade-level content by incorporating both digital and physical tools to enhance understanding and engagement with key concepts. Tasks throughout all grades are accompanied by digital tools and manipulatives. In Grade 6, Unit 5, Lesson 2, most activities include manipulatives to help students access content. The lessons include tiles that are used to represent the powers of ten, with a small square as the power of one, and a thin rod as the power of ten for students to visualize number values. This is followed by application problems that engage multiple domains across Grade 6, with connections to topics learned in previous grades. Additionally, materials provide strategies and support for students working above and below grade level to support their regular and active participation in learning (EdReports, 3M). In each lesson, “Supports for Students with Disabilities” makes reference to principles of Universal Design for Learning (UDL) to support students’ development of language and cognition. Editable documents detailing classroom implementation and testing accommodations, such as pre-annotated text, OCR-readable text-to-speech, and translations, are provided for teachers. In Grade 7, Unit 1, Lesson 1, supplemental instructional strategies are aligned to UDL, with consideration for conceptual and visual-spatial processing, language, memory, attention, social-emotional functioning, and fine motor skills.
- Materials provide for varied means of demonstrating learning, offering a variety of learning tasks and ways for students to demonstrate their understanding, while also providing opportunities for students to monitor their own progress over time (EdReports, 3O). In Grade 6, Unit 5, Lesson 2, students engage in a warm-up routine that requires them to repeatedly identify a structure that does not belong. This routine encourages students to use mathematical language, critique and evaluate the reasoning of

others through mathematical conversations, and identify characteristics of equations by comparison. In Grade 8, Unit 1, Lesson 2, students describe how shapes undergo transformations using words or diagrams. Teacher guidance within materials recommends that students use verbal or pictorial forms to demonstrate conceptual understanding.

- Materials help teachers ensure that students at various levels of English proficiency have access to grade-level content, cognitively demanding tasks, and opportunities to develop academic language in English. Materials provide strategies and support for students who read, write, and/or speak in a language other than English to regularly participate in learning grade-level mathematics (EdReports, 3Q). The Course Guidelines explain the purpose and prompts for eight “Math Language Routines” (MLR) which include Stronger and Clearer Each Time (1), Collect and Display (2), Clarify, Critique, Correct (3), Information Gap (4), Co-Craft Questions (5), Three Reads (6), Compare and Connect (7), Discussion Supports (8) to help students develop academic language. In Grade 8, Unit 6, Lesson 4, Mathematical Language Routine (MLR) 8, “Discussion Supports” are used to scaffold MLs’ access to grade-level content. The lesson identifies the mode of communication (Speaking, Listening, Reading, Writing) and the Design Principle that guides the use of the MLR to help teachers understand its purpose. The level of support provided varies within the lesson, ranging from a general sentence frame in Activity 1 to activity-specific scaffolding designed to deepen students’ understanding of mathematical concepts and terms such as width and length. In Activity 1, materials support MLs by offering sentence frames to guide discussions with a partner, such as: “I think \_\_\_\_ because \_\_\_\_\_.” or “I (agree/disagree) because \_\_\_\_\_.” Provided guidance within materials include that teachers should adjust instruction based on their knowledge of individual students’ needs, while including strategies for MLs to engage language in reading, writing, speaking, listening, conversing, and representing in math. Additionally, materials partially provide guidance to encourage teachers to draw upon student home language to facilitate learning (EdReports, 3S).

## **Areas for Growth**

- While materials offer multiple ways for students to demonstrate learning, there is a limited variety and number of tasks to extend their learning or practice in alternative approaches. Materials include guidance for academic intervention by citing previous lessons but do not provide recommendations on instructional strategies for supporting students working below grade level. Additionally, while there are varied means of accessing content, teachers will need to meet the diverse needs of students with disabilities and those working above or below grade level with more specific directions. Reminders to chunk time or check for understanding are included in materials, but no further guidance is provided on essential content to prioritize or assess.
- Teachers will need to supplement materials to assist MLs with particular tasks. While Math Language Routines (MLR) are referenced as a strategy to help students in group communication, the materials do not explicitly encourage students to use their home language as a learning tool. Additionally, resources

for teachers do not specify how to support students at varying levels of English language proficiency using English language development standards. Lessons and videos are available only in Spanish, which limits accessibility for families who speak other languages. Materials follow a generic approach for supporting MLs and do not fully ensure equitable access for students at all stages of English language development. Teachers will need to supplement materials by differentiating support for students at different levels of English proficiency.

- Materials lack questions and tasks that affirm and value diverse identities, backgrounds, and perspectives. Real-world scenarios included in lessons do not elevate diverse cultural perspectives, backgrounds, and languages to deepen learning. Although materials provide a set of names chosen intentionally to reflect a globally diverse population, a limited set of names is used. The pronouns used throughout lessons (she/he) are not inclusive of all genders. Furthermore, materials do not consistently support students in advancing their thinking and actions about identity, equity, power, and oppression.

# CLASSROOM APPLICATION

## Usability for Teachers



Lessons and tasks advance student learning with clear purpose. Each lesson identifies learning targets, required materials, and key terms with reference to content standards. Materials include suggested classroom routines and structures. Teachers will need to supplement materials to include rubrics, exemplary responses, or peer checklists to set clear expectations for the use of disciplinary language during mathematical language routines. Embedded Mathematical Language Routines, such as Collect and Display, allow teachers to draw on students' diverse cultural and linguistic knowledge.

## Strengths

- Lessons and tasks advance student learning with clear purpose. Each lesson identifies learning targets, required materials, and key terms with reference to content standards. Materials include Lesson Narratives for teachers to understand prior objectives (“Building On”) and (“Working Toward”). Lessons consistently include guidance for instructional routines that engage mathematical language and quantitative reasoning in small groups. In Grade 7, Unit 8, Lesson 16, Estimating Population Proportions, the lesson begins with clearly stated learning goals, including language expectations, a student learning goal, and a learning target. Students are expected to compare proportions for the same category from different samples of a population, understand that a proportion represents a number between 0 and 1 indicating the fraction of data within a certain category, and use sample proportions to make inferences about a population while explaining their reasoning both orally and in writing. The student learning goal focuses on estimating population proportions using samples, while the learning target emphasizes applying this skill to categorize population data. Throughout the lesson, the warm-up and activity syntheses are purposefully structured to build on one another, ensuring a logical progression that aligns with the stated learning goals. The lesson synthesis reinforces key concepts, clarifying and emphasizing the main ideas to support student understanding.
- Materials support teachers with suggested classroom routines and structures (e.g., grouping strategies). In Grade 8, Unit 6, Lesson 5, students warm up using a “Which One Doesn’t Belong” exercise to make observations about structures of various scatter plots. Materials provide teacher guidance on selecting students for groups and supporting them in articulating their reasoning when identifying which figure does not belong. This support includes using diagrams and emphasizing appropriate vocabulary to describe their choices (SMP6). The lesson guidance provides directions on instructional strategies for collecting and displaying student work, as well as guidance on what to do if students do not apply the

desired strategies. In Grade 6, Unit 1, Lesson 8, students calculate the area of triangles based on their knowledge of previous lessons. Guidance within materials recommends students be grouped in groups of 2-3 students and work independently for 6-8 minutes before working together for a few more minutes to discuss their work. Materials recommend that students should confer with one another only after each person has attempted to find the area of at least two triangles.

- Pacing is reasonable and flexible; the curriculum can be implemented effectively within a typical school year. Lesson objectives include 131 required and optional lessons with sufficient time for implementation in 180 school days. Pacing guidelines are flexible and recommended based on progress data. Each lesson plan is designed to fit within a class period that is at least 45 minutes long. Some lessons contain optional activities that provide additional scaffolding or practice for teachers to use at their discretion. Materials can be completed within a regular school year with minimal to no modifications. According to the Grade 8 Course Guide, the curriculum includes eight end-of-unit assessments, 114 days of core lessons, and 17 optional lessons. Additionally, it offers eight days of optional “Check Your Readiness” assessments and two days of optional mid-unit assessments. Depending on the inclusion of optional components, the total instructional time ranges from 122 days to 149 days. Each lesson follows a four-phase structure: Warm-Up (5-10 minutes), Instructional Activities (10-25 minutes), Lesson Synthesis (5-10 minutes), and Cool Down (approximately 5 minutes).
- Materials include informal and formal assessments that help teachers measure learning and adjust instruction. Assessments include a variety of modalities to demonstrate learning (pictorial, written, verbal, or non-verbal form) throughout each lesson to limit the potential of linguistic bias. A readiness assessment, mid-unit assessments, and an end-of-unit assessment, all of which can be modified at the teacher’s discretion, are included in lessons. Materials highlight misconceptions throughout lessons, helping teachers address common challenges students may encounter. In Grade 6, Unit 2, Lesson 6, the “Anticipated Misconceptions” section provides guidance for teachers on potential misunderstandings and strategies for clarification. One example highlights how students may struggle with interpreting a double number line diagram, particularly when the same number appears in different positions. Teachers are instructed to remind students that each number line represents a different quantity and that the repeated numbers have distinct meanings. Materials also provide directions on where to find review resources to guide teachers toward next steps based on assessment data for reteaching and continued practice. In Grade 8, Unit 8, Lesson 5, materials note that by this point in the unit, students should demonstrate some mastery of key concepts. If widespread struggles persist during the Cool Down activity, teachers are advised to revisit Section 1: Square Roots and Side Lengths to reinforce understanding.
- Some examples to help teachers set clear and high expectations for students are included in the materials. Lessons include sample student responses. In Grade 6, Unit 1, Lesson 9, Activity 1, students are tasked with finding the formula for the area of a triangle. Materials provide three sample responses that exemplify proficient responses to the question and include tiered rubrics for constructed and

extended response items on unit assessments.

- 
- Materials include guidance and resources designed specifically to build teachers' knowledge. Provided within materials are adult-level explanations and examples of the more complex grade-level/course-level concepts and concepts beyond the current course so that teachers can improve their own knowledge of the subject and provide explanations of the instructional approaches of the program and identification of the research-based strategies (EdReports, 3B). Each lesson includes recommended strategies to support the development of cognition and language amongst students with disabilities and MLs. In Grade 6, Unit 1, Lesson 8, students use color and annotations as teachers scribe their approach to calculating the area of a triangle. Students are prompted to reflect on how they knew which measurements to use before labeling each base and height accordingly. Also included are the purpose of Visual-Spatial Processing and Comprehension to support teachers in developing their knowledge of inclusive education practices. Embedded Mathematical Language Routines, such as Collect and Display, allow teachers to draw on students' diverse cultural and linguistic knowledge, allowing them to engage with content in their preferred languages.

## **Areas for Growth**

- Materials do not consistently provide rubrics, exemplary oral responses, or peer checklists to help teachers set clear expectations for students. Teachers will need to supplement materials with annotated student texts and directions that limit bias in expectations of mathematical language. Assessments do not include criteria for demonstration of grade-level proficiency. Teachers will need to supplement materials to provide students with additional clarification on the expectations for justifying or explaining responses.

# CLASSROOM APPLICATION

## Impact on Learning \_\_\_\_\_



The curriculum demonstrates alignment to research-based practices.

# WHAT THE PUBLISHER SAYS

---

We asked publishers for information on diverse representation in their materials, professional learning for Massachusetts educators, and product specifications. See what **Open Up Resources** had to say about **Open Up Resources 6-8 Math** (3rd Edition).

# DIVERSE REPRESENTATION

*Describe how you ensure that students of diverse races, ethnicities, nationalities, socioeconomic classes, family experiences, linguistic backgrounds, abilities, cultures, religions, genders, gender identities, sexual orientations, and other social identity markers see themselves fully reflected, respected, and valued in your curriculum. Describe also how your curriculum challenges existing narratives about historically marginalized and historically centered or normed cultures, including challenges rooted in systemic oppression.*

---

*Open Up Resources 6–8 Math 3rd Edition has several features that support culturally responsive pedagogy, including focused and coherent courses of study, attention to the selection of real-world tasks and contexts, and the way lessons and activities are structured.*

*The Open Up Resources 6–8 Math 3rd Edition lessons contain a variety of tasks that interest students of various demographic and personal characteristics. All names and wording are chosen with diversity in mind, and the materials do not contain gender biases. These names are presented repeatedly, to avoid stereotyping characters by gender, race, or ethnicity. When multiple characters are involved in a scenario, they are often doing similar tasks or jobs in ways that do not express gender, race, or ethnic bias.*

# PROFESSIONAL LEARNING

*Describe any professional learning opportunities (materials or experiences, publisher-provided or otherwise) available for Massachusetts educators that are designed to support skillful implementation of your curriculum. If there are professional learning opportunities available specifically to support skillful use of the materials with English learners, students with disabilities, students working above or below grade level, and/or students of other diverse identity markers, please include this information.*

---

Open Up Resources partners with several Professional Learning providers for our 6-8 Math 3rd Edition curriculum. Open Up Resources carefully vets our professional learning partners to ensure that our district partners receive quality professional learning support. Having multiple Professional Learning partners allows us to match your school to a Professional Learning provider who meets your needs, not only with offerings, but also with budget. Our Professional Learning partners are highly qualified to support your district in the three major pathways of professional learning to ensure a successful implementation of Open Up Resources 6-8 Math 3rd Edition.

- Introduction to the Curriculum - Introduce teachers to the key features, design principles, and the academic content while engaging with the curriculum materials.
  - Launch Training
- Deepening Instructional Practice - Opportunities for teachers to engage more deeply with instructional practices/protocols and upcoming academic content throughout the year (in-class support, additional training sessions, observation with feedback, fostering teacher collaboration, etc.).
  - “Just in time” on-site or virtual sessions
  - Job-embedded coaching
  - Teacher leadership support sessions
  - Topic-focused training
- Cultivating Instructional Leadership - Supporting curriculum implementation for coaches and building/district leaders.
  - Learning walks
  - Job-embedded coaching for instructional leaders

## **Online Communities**

Open Up Resources has formed free national Professional Learning Communities (PLCs) to help support curriculum implementation and to provide ongoing teacher support.

### **Facebook Communities (<https://openupresources.org/social-community/>)**

Over 6,000 teachers from around the country have joined our unique 6-8 math learning group to share resources and instructional tips, discuss the curriculum, and ask/answer questions.

PLC link: [www.facebook.com/groups/OpenUpMath](https://www.facebook.com/groups/OpenUpMath)

### **National PLC Meetings (<https://openupresources.org/math-curriculum/6-8-math/math-guru-chat/>)**

Numerous video chat opportunities are provided through Zoom, GoToWebinar, and Facebook Live for teachers to interact with others using the curriculum as well as classroom experts. Monthly Zoom PLCs meetings, led by Open Up Resources Gurus, unpack units and answer teacher questions.

# PRODUCT SPECIFICATIONS

*Describe what a school or district needs to implement your curriculum successfully, including instructional hours and technological infrastructure. Provide basic information about what products are associated with the curriculum (e.g., what texts a typical purchase includes and/or what tools and resources are openly available online).*

---

Open Up Resources purposefully created a curriculum that can be accessed in a variety of ways such as printed workbooks, web edition, LMS, and Kiddom. By doing this, each school can choose which method they would like to use to access our curriculum.

By releasing our curriculum as OER, we are living the values of our mission. Our curriculum can be freely accessed via a website, LMS through a Common Cartridge integration. While these digital materials are free to schools and districts, we understand that not every school has access to technology to support 1:1 implementation.

In response to the needs of schools, Open Up Resources has worked to find low-cost options for printed resources to offer schools and districts. We also offer a robust digital offering via the OUR website as an open education resource. We also work with Kiddom for an even more robust digital experience that is available with a license purchase.

To implement the curriculum properly, districts will need to provide access to the Teacher Materials (print or digital) and Print student materials. Print student materials are recommended for the first year of instruction.

Open Up Resources also offers Math Kits, consumable and non-consumable, which include the materials for the activities for an entire school year.

# RESPONSE TO REPORT

**Open Up Resources 6–8 Math 3rd Edition** is a problem-based curriculum that values students spending most of their time in math class doing mathematics: making sense of problems, estimating, trying different approaches, selecting and using appropriate tools, evaluating the reasonableness of their answers, interpreting the significance of their answers, noticing patterns and making generalizations, explaining their reasoning verbally and in writing, listening to the reasoning of others, and building their understanding.

In a [1-year case study](#), Nuasin, a K-12 charter school, adopted *Open Up Resources 6–8 Math* as its core curriculum for the 2022–2023 school year. After just one year, students showed significant growth in math performance in grades K–8. Nuasin leaders reported that the most significant impacts emerged in campus-wide shifts in teaching practices and student behaviors.

**Open Up Resources 6–8 Math 3rd Edition is also available as an Accelerated edition.** *Open Up Resources 6–8 Math Accelerated* is a two-course curriculum designed to be implemented during Grades 6 and 7. The Accelerated sequence prepares students to complete Algebra I or Mathematics I in Grade 8.

**Open Up Resources 6–8 Math 3rd Edition is available in Spanish.** We partnered with native Spanish-speaking mathematics teachers and experts to ensure the resources were properly translated. This partnership allowed us to stay true to the mathematics and to the Spanish language without losing either in translation. All our student-facing materials have been translated and are available within the online and print *Open Up Resources 6–8 Math 3rd Edition* curriculum materials.



## Looking for more information?

Read the full [approved gateway review](#) or find a [Massachusetts district using this product](#).

This product prequalifies for a [Departmental Master Agreement](#) based upon its CURATE rating. Please contact [DESE-CURATE@mass.gov](mailto:DESE-CURATE@mass.gov) for information about how to utilize the Master Agreement should one exist through the publisher completion of the negotiation or approval process.

Learn about the [CURATE process](#) and explore [Frequently Asked Questions](#).

# NOTE

*Open Up Resources 6-8 Math*, 3rd Edition is available digitally as an Open Education Resource (OER).

---