

EdReports.org Quality Instructional Materials Tool: High School Mathematics

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Introduction

The Common Core State Standards (CCSS), informed by three decades of knowledge around learning, create an unprecedented opportunity to improve student achievement nationwide. However, simply adopting the Common Core and working with teachers on the instructional shifts—as over 40-plus states are doing—will not directly translate into student success. Evidence indicates that instructional materials have a significant effect on student outcomes. And as Harvard's Richard Elmore argues, to get inside the instructional core and improve learning at scale, it is essential to get quality content into the hands of teachers and students.

If quality instructional materials (e.g., textbooks, curriculum, digital resources and other instructional content) are as critical as the research suggests, local decisions about what CCSS materials to adopt or purchase are now more significant than ever. Publishers are updating their materials, independent curriculum providers are launching and teachers nationwide are generously publishing their own materials for the benefit of others. States, districts and organizations also have been developing and disseminating Common Core-aligned lessons. With so many new and repackaged instructional products being introduced into a quickly changing marketplace, state and district leaders and educators need independent information about instructional materials in order to make informed purchasing decisions and, over time, to move the needle on student performance.

About EdReports.org

<u>Our Vision</u>: All students and teachers in the United States will have access to the highest-quality instructional materials that will help improve student learning outcomes.

<u>Our Mission</u>: EdReports.org, a nonpartisan, independent nonprofit of educators, for educators, will increase the capacity of teachers, ad ministrators and leaders across the country to seek, develop and demand high-quality instructional materials. EdReports.org's extensive and transparent reviews of existing instructional materials, including user feedback and technical assistance to schools and districts, will ensure teachers are equipped with excellent materials nationwide.

<u>Our Theory of Action</u>: Credible information against quality criteria in a quickly changing marketplace helps educators make better purchasing decisions and improve student performance. Identifying excellence and improving demand for credible information will improve the supply of quality materials over time, leading to better student achievement outcomes.

About This Tool

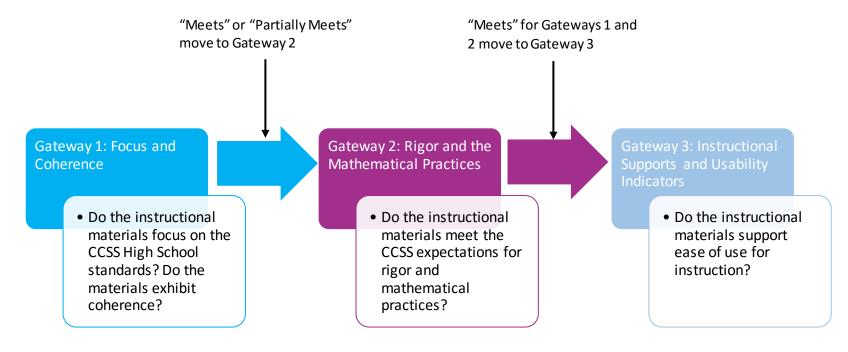
EdReports.org has developed this tool to provide educators, stakeholders and leaders with independent and useful information about the quality of instructional materials (whether digital, traditional textbook or blended) from those who will be using them in classrooms. Expert educators will use the tool to evaluate full sets of instructional materials in mathematics against non-negotiable criteria (see Figure 1). The tool builds on the experience of educators, curriculum experts and leading rubric developers and organizations—such as Achieve, Inc., the Council of Great City Schools, the Dana Center, Illustrative Mathematics Project, the National Council of Teachers of Mathematics and Student Achievement Partners, among others—that have conducted reviews of instructional materials, lessons and tasks.

¹ G. Whitehurst. "Don't Forget Curriculum." Brown Center Letters on Education. (Washington, DC: Brookings Institute, 2009); M. Chingos and G. Whitehurst. Choosing Blindly: Instructional Materials, Teacher Effectiveness and the Common Core. (Washington, DC: Brown Center on Education Policy at Brookings, April 2012).

² Richard Elmore, in his work on the instructional core, asserts that there are three ways to improve student learning at scale: (1) raise the level of content that students are taught; (2) increase the skill and knowledge that teachers bring to the teaching of that content; and (3) increase the level of students' active learning of that content. R. El more. *Improving the Instructional Core* (Cambridge, MA: Harvard Graduate School of Education, 2008).

To create the evaluation tool, EdReports.org conducted research into the use of commonly-used rubrics, gathered input from more than 500 educators during a nationwide listening tour on criteria and rubrics, interviewed professors of mathematics and mathematics education along with publishers of materials and convened an Anchor Educator Working Group (AEWG) of expert practitioners to inform the creation of the instrument. Continuous improvement is important to this development, and the AEWG will have the opportunity to refine the tool after the initial round of implementation. The tool has three major gateways (see Figure 1) to guide the evaluation process. Reviewers will apply the three gateways sequentially to ensure EdReports.org reports to the field the extent to which materials are CCSS-aligned and usable by educators. Those materials that meet or partially meet the expectations for Gateway 1 (CCSS Focus and Coherence) will move to Gateway 2. Only those materials that meet the expectations for both Gateway 1 and Gateway 2 (Rigor and Mathematical Practices) will move to Gateway 3 (Usability Indicators).

Figure 1: Gateway Evaluation Process for Review of Mathematics Materials



Instructions for Conducting High Quality Reviews

Using the Tool and Toolkit: Reference Materials to Support Quality Reviews

In addition to the **EdReports.org Quality Instructional Materials Tool: High School Mathematics**, reviewers have a toolkit with the following materials as references for reviews:

- CCSS for Mathematics (High School standards begin on page 57)
- High School Publishers' Criteria for the Common Core State Standards for Mathematics (Spring 2013)
- High School Progression Documents
- Evidence Guidelines (technical documentation support indicating how to collect evidence and where to find evidence)
- Standards for Mathematical Practices: Commentary and Illustrations for High School

How to Apply Ratings Using the Evaluation Tool in 4 Steps

STEP 1: Review the Criteria and Indicators for each Gateway

- Each Gateway consists of a number of Criteria and Indicators. Criteria in Gateways 1 and 2 refer to Alignment. Criteria in Gateway 3 refers to Usability.
- Reviewers must provide a rating according to the score options provided for each Indicator and must cite concrete evidence to justify the rating. Reviewers document evidence, including page numbers, lesson names, unit topics, etc., in an evidence collection workbook.

CRITERION	INDICATORS	RATING	EVIDENCE
Rigor and Balance: The instructional materials reflect the balances in the Standards and help students meet the Standards' rigorous expectations, by giving appropriate attention to: developing students' conceptual	2a. Attention to Conceptual Understanding: The materials support the intentional development of students' conceptual understanding of key mathematical concepts, especially where called for in specific content standards or clusters.	0 1 2	
understanding; procedural skill and fluency; and engaging applications. ⁴ Earned: of 8 points	2b. Attention to Procedural Skill and Fluency: The materials provide intentional opportunities for students to develop procedural skills and fluencies, especially where called for in specific	0 1 2	

STEP 2: Rate each Indicator

- Reviewers will evaluate instructional materials against each Indicator using the following rating scale:
 - 2 (or 4 for 1ai and 1bii) A rating of 2 (or 4) means that the materials meet the expectations of the Indicator.
 - 1 (or 2 for 1ai and 1bii) A rating of 1 (or 2) means that the materials partially meet the expectations of the Indicator.
 - 0 A rating of 0 means that the materials **do not meet the expectations** of the Indicator.

STEP 3: Determine the Criterion Rating

- An overall rating for each Criterion is determined by adding the total points earned from the Criterion's Indicators.
- Once the total from the Indicators is added, select the Rating (e.g., Meets expectations, partially meets, etc.) based on where the point total falls (see sample below).

Sample Criterion Rating

CRITERION	INDICATORS	RATING	EVIDENCE
Rigor and Balance: The instructional materials reflect the balances in the Standards and help students meet the Standards' rigorous expectations, by giving appropriate attention to: developing students' conceptual understanding; procedural skill and fluency; and engaging applications. Earned: 7 of 8 points Meets expectations	2a. Attention to Conceptual Understanding: The materials support the intentional development of students' conceptual understanding of key mathematical concepts, especially where called for in specific content standards or clusters. 2b. Attention to Procedural Skill and Fluency: The materials provide intentional opportunities for students to develop procedural skills and fluencies, especially where called for in specific content standards or	0 1 2	Sample Calculation of Criterion 1) Add the points earned from the Indicators that were reviewed for that Criterion • Example: 2 + 1 + 2 + 2= 7 points 2) Determine the overall rating by using the point scale provided under the Criterion
(7-8 points) Partially meets expectations (5-6 points)	clusters. 2c. Attention to Applications: The materials support the intentional development of students' ability to utilize mathematical concepts and skills in engaging applications, especially where called for in specific	0 1 2	 Example: 7 points earns a 'Meets expectations' because 7 points falls within the range of 7-8 points. The range to attain 'Meets expectations' is 7-8 points for this Criterion because of the overall method used to determine
Does not meet expectations (<5 points)	content standards or clusters. 2d. Balance: The three aspects of rigor are not always treated together and are not always treated separately. The three aspects are balanced with respect to the standards being addressed.	0 1 2	cut scores.

STEP 4: Determine the Final Gateway Rating

• The scoring from each Criterion is added to determine a final Gateway score. Gateway scores are determined using the same rating scale as earlier.

Sample Gateway Rating

Overall Gateway 2 Rating: Rigor and Mathematical Practices

• Reviewers should use data recorded in Rating Sheets 1 and 2 to determine the Gateway 2 final rating.

			expectations' for this Gateway, the
	CRITERIA	RATING SCORE	instructional materials must receive 14-16 points.
GATEWAY 2: RIGOR AND MATHEMATICAL PRACTICES: The materials align with CCSS expectations for rigor and mathematical practices. Earned: 15 of 16 points	2a-2d. The instructional materials reflect the balances in the Standards and help students meet the Standards' rigorous expectations, by helping students develop conceptual understanding, procedural skill and fluency, and application.	Point Totals from Rating Sheet(s): 7	 2) Determine the number of points earned from each of the Indicators under the Gateway being scored. • Example: In this case, criteria 2a-2d earned 7 points and criteria 2e-2h earned 8 points.
Meets expectations (14-16 points) Partially meets expectations (10-13 points)	2e-2h. Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.	Point Totals from Rating Sheet(s):	 Determine the overall rating by using the point scale provided for that Gateway. Example: The total points possible for this Gateway is 16; the total points earned is 15; therefore, the overall rating for this Gateway is 'Meets expectations.'
Does not meet expectations (<10 points)			

MATERIALS MUST "MEET EXPECTATIONS" FOR GATEWAYS 1 AND 2 TO MOVE ON TO GATEWAY 3.

Sample Calculation of Gateway

- 1) Determine the total points possible for each Gateway by adding the total possible points from each Criterion under that Gateway.
 - Example: Gateway 2 can earn a total of 16 points. To attain 'Meets

Evaluation Tool

Background Information

MATERIALS REVIEW	
Reviewer Name:	
Date:	
Title of Instructional Material:	
Grade:	
Publisher:	
Edition Year:	·

EdReports.org Quality Instructional Materials Tool: High School Mathematics

Gateway 1: Focus and Coherence

- Do the instructional materials focus on "the high school standards that specify the mathematics which all students should study in order to be college and career ready" (p. 57 of CCSSM)?
- Do the instructional materials exhibit coherence within and across courses/grade levels that is consistent with a logical structure of mathematics?

Rating Sheet 1: Focus and Coherence

- The indicators in this rating sheet operate interdependently to fully address Focus and Coherence of the High School CCSSM. Although individual indicators may not appear to address Focus or Coherence, indicators 1a through 1g work together to measure the degree to which the materials attend to Focus and Coherence.
- For 'Focus and Coherence' to attain a score of 'Meets Expectations,' materials must earn at least 14 points.

CRITERION	INDICATORS	R	ATIN	G	EVIDENCE
Focus and Coherence: The	1a. The materials focus on the high school standards.*				
instructional materials are	i. The materials attend to the full intent of the mathematical content contained in the	0	2	4	
coherent and consistent with	high school standards for all students. **				
"the high school standards	ii. The materials attend to the full intent of the modeling process when applied to the	0	1	2	
that specify the mathematics	modeling standards. ***		0 1	_	
which all students should	1b. The materials provide students with opportunities to work with all high school standard	ls and	do n	ot dist	ract students
study in order to be college	with prerequisite or additional topics.				
and career ready" (p. 57 of	i. The materials, when used as designed, allow students to spend the majority of their				
CCSSM).	time on the content from CCSSM widely applicable as prerequisites for a range of	0	1	2	
Formed: of 19 points	college majors, postsecondary programs, and careers.				
Earned: of 18 points	ii. The materials, when used as designed, allow students to fully learn each standard.	0	2	4	
Meets expectations	1c. The materials require students to engage in mathematics at a level of sophistication	0	1	2	
(14-18 points)	appropriate to high school.		-		
(14-10 points)	1d. The materials are mathematically coherent and make meaningful connections in a				
Partially meets	single course and throughout the series, where appropriate and where required by the	0	1	2	
expectations	Standards.				
(10-13 points)	1e. The materials explicitly identify and build on knowledge from Grades 6-8 to the High			_	
(10 10 points)	School Standards.	0	1	2	
Does not meet	1f. The plus (+) standards, when included, are explicitly identified and coherently support				
expectations	the mathematics which all students should study in order to be college and career ready.				
(<10 points)					

^{*}In this tool, the phrase "high school standards" refers to the standards that "specify the mathematics that all students should study in order to be college and career ready" (p. 57). These standards do not have a plus (+) symbol. Those standards that encompass additional mathematics for a dvanced courses and are indicated by a (+) symbol in the CCSS are considered in indicator 1g.

**For those standards indicated as modeling standards, this indicator will not examine how the modeling process is used with them. The examination of the modeling process with specific modeling standards will occur in indicator 1aii.

^{***}In the CCSSM, "specific modeling standards appear throughout the highs chool standards indicated by a starsymbol" (p. 57), and the modeling process indudes 6 steps and is defined to be a "process of choosing and using appropriate mathematics and statistics to analyze empirical situations, to understand them better, and to improve decisions" (p. 72).

Number and Quantity	Algebra	Functions	Geometry	Statistics and Probability	Applying Key Takeaways from Grades 6–8**
N-RN, Real Numbers: Both clusters in this domain contain widely applicable prerequisites. N-Q*, Quantities: Every standard in this domain is a widely applicable prerequisite. Note, this domain is especially important in the high school content standards overall as a widely applicable prerequisite.	Every domain in this category contains widely applicable prerequisites.° Note, the A-SSE domain is especially important in the high school content standards overall as a widely applicable prerequisite.	F-IF, Interpreting Functions: Every cluster in this domain contains widely applicable prerequisites.° Additionally, standards F-BF.1 and F-LE.1 are relatively important within this category as widely applicable prerequisites.	The following standards and clusters are relatively important within this category as widely applicable prerequisites: G-CO.1 G-CO.9 G-CO.10 G-SRT.B G-SRT.C Note, the above standards in turn have learning prerequisites within the Geometry category, including: G-CO.A G-CO.B G-SRT.A	The following standards are relatively important within this category as widely applicable prerequisites: S-ID.2 S-ID.7 S-IC.1 Note, the above standards in turn have learning prerequisites within 6-8.SP.	 Solving problems at a level of sophistication appropriate to high school by: Applying ratios and proportional relationships. Applying percentages and unit conversions, e.g., in the context of complicated measurement problems involving quantities with derived or compound units (such as mg/mL, kg/m³, acre-feet, etc.). Applying basic function concepts, e.g., by interpreting the features of a graph in the context of an applied problem. Applying concepts and skills of geometric measurement e.g., when analyzing a diagram or schematic. Applying concepts and skills of basic statistics and probability (see 6-8.SP). Performing rational number arithmetic fluently.

 $^{^3}$ Refer also to Table 1 (page 8) in the HS Mathematics Publisher's Criteria.

Overall Gateway 1 Rating: Focus and Coherence

• Reviewers should use data recorded in Rating Sheet 1 to determine the Gateway 1 final rating.

GATEWAY 1: FOCUS AND COHERENCE: The instructional materials are coherent and consistent with "the high school standards that specify the mathematics which all students should study in order to be college and career ready" (p. 57 of CCSSM). Farned: of 18 points 1a-1e. The instructional materials are coherent and consistent with "the high school standards that specify the mathematics which all students should study in order to be college and career ready" (p. 57 of CCSSM).		CRITERIA	RATING SCORE	EVIDENCE
Meets expectations (14-18 points) Partially meets expectations (10-13 points) Does not meet expectations (<10 points)	materials are coherent and consistent with "the high school standards that specify the mathematics which all students should study in order to be college and career ready" (p. 57 of CCSSM). Earned: of 18 points Meets expectations (14-18 points) Partially meets expectations (10-13 points) Does not meet expectations	materials are coherent and consistent with "the high school standards that specify the mathematics which all students should study in order to be college and career		

MATERIALS MUST "MEET EXPECTATIONS" OR "PARTIALLY MEET EXPECTATIONS" FOR GATEWAY 1 TO MOVE ON TO GATEWAY 2.

Gateway 2: Rigor and Mathematical Practices

• Do the instructional materials meet the CCSS expectations for rigor and mathematical practices?

Rating Sheet 1: Rigor and balance

• For 'Rigor and Balance' to attain a score of 'Meets Expectations,' material must earn at least 7 points.

CRITERION	INDICATORS	RATING	EVIDENCE
Rigor and Balance: The instructional materials reflect the balances in the Standards and help students meet the Standards' rigorous expectations, by giving appropriate attention to: developing students' conceptual	2a. Attention to Conceptual Understanding: The materials support the intentional development of students' conceptual understanding of key mathematical concepts, especially where called for in specific content standards or clusters.	0 1 2	
understanding; procedural skill and fluency; and engaging applications. ⁴ Earned: of 8 points	2b. Attention to Procedural Skill and Fluency: The materials provide intentional opportunities for students to develop procedural skills and fluencies, especially where called for in specific content standards or clusters.	0 1 2	
Meets expectations (7-8 points) Partially meets expectations (5-6 points)	2c. Attention to Applications: The materials support the intentional development of students' ability to utilize mathematical concepts and skills in engaging applications, especially where called for in specific content standards or clusters.	0 1 2	
Does not meet expectations (<5 points)	2d. Balance: The three aspects of rigor are not always treated together and are not always treated separately. The three aspects are balanced with respect to the standards being addressed.	0 1 2	

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⁴ Refer also to Criterion #2 (pages 9-10) in the HS Mathematics Publisher's Criteria.

Rating Sheet 2: Connections between the Standards for Mathematical Practice and Standards for Mathematical Content

• For 'Connections between the Standards for Mathematical Practice and CCSSM' to attain a score of 'Meets Expectations,' Indicators must be greater than or equal to 7.

CRITERION	INDICATORS	RATING	EVIDENCE
Practice-Content Connections: Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice. ⁵	2e. The materials support the intentional development of overarching, mathematical practices (MPs 1 and 6), in connection to the high school content standards, as required by the mathematical practice standards.	0 1 2	
Earned: of 8 points Meets expectations (7-8 points)	2f. The materials support the intentional development of reasoning and explaining (MPs 2 and 3), in connection to the high school content standards, as required by the mathematical practice standards.	0 1 2	
Partially meets expectations (4-6 points) Does not meet expectations (<4 points)	2g. The materials support the intentional development of modeling and using tools (MPs 4 and 5), in connection to the high school content standards, as required by the mathematical practice standards.	0 1 2	
	2h. The materials support the intentional development of seeing structure and generalizing (MPs 7 and 8), in connection to the high school content standards, as required by the mathematical practice standards.	0 1 2	

⁵ Refer also to Criterion #5 (pages 12-13) in the HS Mathematics Publisher's Criteria. Not all items need to a lign to a Mathematical Practice. In addition, there is no requirement to have an equal balance a mong the Mathematical Practices in any set of materials or grade.

Overall Gateway 2 Rating: Rigor and Mathematical Practices

• Reviewers should use data recorded in Rating Sheets 1 and 2 to determine the Gateway 2 final rating.

	CRITERIA	RATING SCORE	EVIDENCE
GATEWAY 2: RIGOR AND MATHEMATICAL PRACTICES: The materials align with CCSS expectations for rigor and mathematical practices. Earned: of 16 points	2a-2d. The instructional materials reflect the balances in the Standards and help students meet the Standards' rigorous expectations, by helping students develop conceptual understanding, procedural skill and fluency, and application.	Point Totals from Rating Sheet(s):	
Meets expectations (14-16 points) Partially meets expectations (10-13 points)	2e-2h. Materials meaningfully connect the Standards for Mathematical Content and the Standards for Mathematical Practice.	Point Totals from Rating Sheet(s):	
Does not meet expectations (<10 points)			

MATERIALS MUST "MEET EXPECTATIONS" FOR GATEWAYS 1 AND 2 TO MOVE ON TO GATEWAY 3.

Gateway 3: Instructional Supports and Usability Indicators

• Gateway 3 Rating Sheets include some Indicators that are rated and some that are not rated. In cases where Indicators are not rated, the evidence collected provides valuable information about instructional materials, although the indicator is not scored and does not affect the rating for the Criterion or Gateway.⁶

Rating Sheet 1: Use and Design to Facilitate Student Learning

• For 'Use and design facilitate student learning' to attain a score of 'Meets Expectations,' material must earn at least 7 points.

CRITERION	INDICATORS	RATING	EVIDENCE
Use and design facilitate student learning: Materials are well designed and take into account effective lesson structure and pacing.	3a. The underlying design of the materials distinguishes between problems and exercises. In essence, the difference is that in solving problems, students learn new mathematics, whereas in working exercises, students apply what they have already learned to build mastery. Each problem or exercise has a purpose.	0 1 2	
Earned: of 8 points	3b. Design of assignments is not haphazard: tasks are given in intentional sequences.	0 1 2	
Meets expectations (7-8 points)	3c. There is variety in how students are asked to present the mathematics. For example, students are asked to produce answers and solutions, but also, arguments and explanations, diagrams, mathematical models, etc.	0 1 2	
Partially meets expectations (5-6 points)	3d. Manipulatives, both virtual and physical, are faithful representations of the mathematical objects they represent and when appropriate are connected to written methods.	0 1 2	
Does not meet expectations (<5 points)	3e. The visual design (whether in print or digital) is not distracting or chaotic, but supports students in engaging thoughtfully with the subject.		

⁶ For indicators that do not currently receive a numerical rating, EdReports.org is providing evidence of the presence of these indicators but we are currently not including them in the ratings until we gather more information from reviewers and the field on their usefulness.

Rating Sheet 2: Teacher Planning and Learning for Success with CCSS

• For 'Teacher Planning and Learning for Success with CCSS' to attain a score of 'Meets Expectations,' material must earn at least 7 points.

CRITERION	INDICATORS	RATING	EVIDENCE
Teacher Planning and Learning for Success with CCSS: Materials support teacher learning and	3f. Materials support teachers in planning and providing effective learning experiences by providing quality questions to help guide students' mathematical development.	0 1 2	
understanding of the Standards. Earned: of 8 points	3g. Materials contain a teacher's edition with ample and useful annotations and suggestions on how to present the content in the student edition and in the ancillary materials. Where applicable, materials include teacher guidance for the use of embedded technology to support and enhance student learning.	0 1 2	
Meets expectations (7-8 points) Partially meets	3h. Materials contain a teacher's edition that contains full, adult-level explanations and examples of the more advanced mathematics concepts and the mathematical practices so that teachers can improve their own knowledge of the subject, as necessary.	0 1 2	
expectations (5-6 points)	3i. Materials contain a teacher's edition that explains the role of the specific mathematics standards in the context of the overall series.	0 1 2	
Does not meet expectations (<5 points)	 3j. Materials provide a list of lessons in the teacher's edition, cross-referencing the standards addressed and providing an estimated instructional time for each lesson, chapter and unit (i.e., pacing guide). 3k. Materials contain strategies for informing students, parents, or caregivers about the mathematics program and suggestions for how they can help support student progress and achievement. 3l. Materials contain explanations of the instructional approaches of the program and identification of the research-based strategies. 		

Rating Sheet 3: Assessment

• For 'Assessment' to attain a score of 'Meets Expectations,' material must earn at least 9 points.

CRITERION	INDICATORS	RATING	EVIDENCE
Assessment: Materials offer teachers resources and tools to collect	3m. Materials provide strategies for gathering information about students' prior knowledge within and across grade levels/ courses.	0 1 2	
ongoing data about student progress on the	3n. Materials provide support for teachers to identify and address common student errors and misconceptions.	0 1 2	
Standards. Earned: of 10	30. Materials provide support for ongoing review and practice, with feedback, for students in learning both concepts and skills.	0 1 2	
points	3p. Materials offer ongoing assessments:		
Meets expectations	 Assessments clearly denote which standards are being emphasized. 	0 1 2	
(9-10 points)	 ii. Assessments provide sufficient guidance to teachers for interpreting student performance and suggestions for follow-up. 	0 1 2	
Partially meets expectations (6-8 points)	3q. Materials encourage students to monitor their own progress.		
Does not meet expectations (<6 points)			

Rating Sheet 4: Differentiated Instruction

• For 'Differentiated Instruction' to attain a score of 'Meets Expectations,' material must earn at least 9 points.

CRITERION	INDICATORS	R	ATIN	IG	EVIDENCE
Differentiated	3r. Materials provide teachers with strategies to help				
instruction: Materials	sequence or scaffold lessons so that the content is	0	1	2	
support teachers in	accessible to all learners.				
differentiating instruction for diverse	3s. Materials provide teachers with strategies for meeting the needs of a range of learners.	0	1	2	
learners within and across courses.	3t. Materials embed tasks with multiple entry-points that can be solved using a variety of solution strategies or representations.	0	1	2	
Earned: of 10	3u. Materials provide support, accommodations, and				
points	modifications for English Language Learners and other				
Meets expectations	special populations that will support their regular and	0	1	2	
(9-10 points)	active participation in learning mathematics (e.g.,				
(6 25 points)	modifying vocabulary words within word problems). 3v. Materials provide support for advanced students to investigate mathematics content at greater depth.	0	1	2	
Partially meets	in estigate mathematics content at greater depair				
expectations (6-8	3w. Materials provide a balanced portrayal of various				
points)	demographic and personal characteristics.				
	3x. Materials provide opportunities for teachers to use a				
Does not meet	variety of grouping strategies.				
expectations (<6	3y. Materials encourage teachers to draw upon home				
points)	language and culture to facilitate learning.				

Rating Sheet 5: Effective Technology Use

• For 'Effective Technology Use,' indicators are not rated but evidence should be collected if included in review materials. EdReports.org considers technology use to be an important element of usability, but since printed and online materials vary widely in their use of technology, we are not scoring these indicators at this time.

CRITERION	INDICATORS	RATING	EVIDENCE
Effective technology use: Materials support effective use of technology to enhance student learning. Digital materials are accessible and available in multiple platforms.	3z. Materials integrate technology such as interactive tools, virtual manipulatives/objects, and/or dynamic mathematics software in ways that engage students in the Mathematical Practices. 3aa. Digital materials (either included as supplementary to a textbook or as part of a digital curriculum) are webbased and compatible with multiple internet browsers (e.g., Internet Explorer, Firefox, Google Chrome, etc.). In addition, materials are "platform neutral" (i.e., are compatible with multiple operating systems such as Windows and Apple and are not proprietary to any single		
	platform) and allow the use of tablets and mobile devices. 3ab. Materials include opportunities to assess student mathematical understandings and knowledge of procedural skills using technology. 3ac. Materials can be easily customized for individual learned. i. Digital materials include opportunities for teachers to	ers.	
	personalize learning for all students, using adaptive or other technological innovations. ii. Materials can be easily customized for local use. For example, materials may provide a range of lessons to draw from on a topic. 3ad. Materials include or reference technology that provides opportunities for teachers and/or students to collaborate with each other (e.g. websites, discussion groups, webinars, etc.).		

Overall Gateway 3 Rating: Instructional Supports and Usability Indicators

• Reviewers should use data recorded in Rating Sheets 1 thru 4 to determine the Gateway 3 final rating.

	CRITERIA	RATING	EVIDENCE
GATEWAY 3: Instructional Supports and Usability Indicators: Materials support student learning and engagement and support teacher learning and understanding of the Standards. Materials also offer supports to differentiate instruction for diverse learners and enrich instruction through technology.	3a-3e. Materials are well designed and take into account effective lesson structure and pacing to facilitate student learning.	Point Totals from Rating Sheet(s):	
	3f–3l. Materials support teacher learning and understanding of the Standards.	Point Totals from Rating Sheet(s):	
Earned: of 36 points Meets expectations (30-36 points) Partially meets expectations (22-29 points) Does not meet expectations (<22 points)	3m-3q. Materials offer teachers resources and tools to collect ongoing data about student progress on the Standards.	Point Totals from Rating Sheet(s):	
	3r-3y. Materials support teachers in differentiating instruction for diverse learners within and across grades.	Point Totals from Rating Sheet(s):	
	3z-3ad. Materials support effective use of technology to enhance student learning.	Not rated	