**2019 Instructional Material Summer Review Institute**

# Review Team Appraisal of Title

**(K-8 Mathematics)**

This appraisal form is provided for use by educators responsible for the selection of instructional materials for implementation with districts and charter schools across New Mexico to meet the needs of their student populations.

This appraisal form should be used in conjunction with the publisher provided Form D: Research Based Effectiveness Determination that supports this reviewed material which can be found on the Instructional Material Bureau website.

https://webnew.ped.state.nm.us/bureaus/instructional-materials/the-adoption-cycle/

| | | | |
|---|---|---|---|
| IM Title | Middle School Math Solutions Course 1 | Publisher | Carnegie Learning |
| SE ISBN | 9781609728892 | TE ISBN | 9781609728779 |
| SW ISBN | 9781609728588 | Grade Level/Content | Grade 6 |

**Core Material Designation** *(Core Material is - the comprehensive print or digital educational material, including basal material, which constitutes the necessary instructional components of a full academic course of study in those subjects for which the department has adopted content standards and benchmarks.*)

Recommended ___X__ Recommended with Reservations _____ Not Recommended _____

**Total Score**

| Reviewer #34 | Reviewer #35 | Reviewer #36 | Average Score |
|---|---|---|---|
| 95.17% | 89.17% | 97.33% | _93.89%_____ |

**Standards Review** - *Materials are reviewed for alignment with the state adopted content standards, benchmarks and performance standards.*

| Reviewer #34 | Reviewer #35 | Reviewer #36 | Average Score |
|---|---|---|---|
| 99.26% | 89.22% | 99.26% | _95.92%_____ |

| Materials align with grade level standards. |
|---|
| *Statements of appraisal and supporting evidence:*<br>● Modules begin with a "Learning Together" chart with upcoming topics, standards addressed, number of days expected to teach the lessons, highlights of prior learning needed and new learning that will take place.<br>● Materials are aligned with common core state standards within the grade level. Standards overview in the Teacher's Implementation Guide provides a mapping of the course content to the standards. Learning goal is provided in each lesson that represent the targeted standard.<br>● Students are given a connection to prior learning. |
| Materials align to standards for mathematical practice. |
| *Statements of appraisal and supporting evidence:* |

IM= Instructional Material SE= Student Edition TE= Teacher Edition SW= Student Workbook

- The materials give an opportunity for students to use different mathematical models like ratio tables, number lines, diagrams, graphs, and equations. Each lesson provides opportunities for students to think, reason and communicate.
- The materials give students daily opportunities to discuss, model, investigate, explain, interpret, compare/contrast, critique, estimate, represent a problem in a different way, and solve problems with varying strategies.

Materials show aspects of rigor.

*Statements of appraisal and supporting evidence:*

- Materials have a variety of activities that would help the students develop conceptual understanding through connections among concepts of each lessons, provide opportunity to students to perform different operations using algorithm, and use a variety of single and multi-step solutions in real-world context to make meaning of content.
- Students are provided with a balance of rigorous opportunities to learn with conceptual understanding by making connections among concepts; procedural skill and fluency by supporting students with multiple strategies for solving, viewing, and representing problems; and application of mathematical concepts and skills through real-world, single and multi-step contextual problems.

**Math Content Review** - *Materials are reviewed for relevant criteria pertaining to the support for teachers and students in the specific reviewed content area.*

| Reviewer #34 | Reviewer #35 | Reviewer #36 | Average Score |
|---|---|---|---|
| 92.86% | 100.00% | 92.86% | 95.24% |

Materials are consistent with grade level content, supporting the intent of the delivery and understanding of mathematics.

*Statements of appraisal and supporting evidence:*

- The content of the materials is consistent within the grade level. The lesson structure highlights how the parts of the lesson fit within the instructional design: Engage, Develop and Demonstrate.
- The publisher offers many online supports (video library).
- Adult-level explanations and examples are not provided in the Teacher's Implementation Guide.
- In the teacher's edition each lesson is preceded with Facilitation Notes which include questions to ask, things to look for as students work, common misconceptions, differentiation strategies, and a summary objective of the lesson.

Materials support student learning of mathematics.

*Statements of appraisal and supporting evidence:*

- Student textbooks are consumable, as are the Skills Practice workbooks, and align to each other. The text provides varying formats of the skills and content that students need, but the Skills Practice workbook does not reinforce every lesson or concept.
- MATHia software is composed of the same 5 modules as the course textbook. The modules are divided into several units consisting of Workspaces, made up of individual problems. It provides feedback and contextual hints to help students persevere and solve problems. As students work, MATHia tracks each action and plans the next activity accordingly.

IM= Instructional Material SE= Student Edition TE= Teacher Edition SW= Student Workbook

- Each lesson in the materials provides an opportunity for students to work on a variety of activities from single to multi-step contextual problems.
- Each module provides a "Carnegie Learning Family Guide" consisting of a description of the topics to be covered, an explanation of “where have we been and where are we going”, examples of the representations/models students will be using, a Math myth bust promoting math mindset, Talking points/questions to ask/things to look for in real-life, and key terms.

**All Content Review** - *Materials are reviewed for relevant criteria pertaining to the support for teachers and students in the material regarding the progression of the standards, lesson structure, pacing, assessment, individual learners and cultural relevance.*

| Reviewer #34 | Reviewer #35 | Reviewer #36 | Average Score |
|---|---|---|---|
| 85.37% | 87.20% | 93.29% | 88.62% |

| Materials are consistent with the progressions in the standards. |
|---|
| *Statements of appraisal and supporting evidence:*<br>● The warm-up at the beginning of each lesson shows how the new concept connects to the prior knowledge in the previous grade.<br>● Each module begins with a "Learning Together" chart with upcoming topics, standards addressed, number of days expected to teach the lessons, highlights of prior learning needed and new learning that will take place.<br>● Publisher provides teacher with a description of student entry point in the Topic Overview, relating prior knowledge and how these tie to the new concepts. |
| Materials foster coherence through connections at a single grade, where appropriate and required by the standards. |
| *Statements of appraisal and supporting evidence:*<br>● Learning Goals are listed for teachers and students in each module overview to reference prior to a new lesson.<br>● Learning Together chart highlights lesson progression, standards covered, and standards reviewed (including those from earlier grade levels)<br>● There were two or more standards/learning goals provided in each topic that are connected. |
| Materials are well designed and take into account effective lesson structure and pacing. |
| *Statements of appraisal and supporting evidence:*<br>● The Teacher's Edition, Student Edition, and Skills Practice Workbook are well-designed. These materials show effective lesson structure and pacing. The Content at a Glance is provided in the Teacher’s Instructional Guide and highlights the sequence of topics and the number of blended instructional days.<br>● Connections to prior learning and connections to future learning within each Module are provided, including an overview.<br>● Problems have adequate spacing between illustrations and questions, room for students to solve neatly in the book and not be distracted by too many problems.<br>● There is an index of math symbols and alphabetical listing and page numbers of concepts and terms. |

IM= Instructional Material SE= Student Edition TE= Teacher Edition SW= Student Workbook

- The assignment part in each lesson give students an opportunity to write their thinking, remember the concept, and practice the concept they have learned.
- Glossary provides examples of key concepts and shows visual representations. The online program, MATHia, also provides many graphics to help build student understanding.

Materials offer teachers resources and tools to collect ongoing data about student progress on the standards.

*Statements of appraisal and supporting evidence:*

- The student detail report in MATHia provides detailed information about students' progress and performance at the module, unit, and workspace levels. This will help the teacher collect ongoing data about student progress. Also, the standard report in MATHia is designed to provide an easy view into how students are mastering or have mastered specific standards.
- Assessment overviews are available online for teachers. These include item standards analysis for the Pre-Test, Post-Test, End of Topic Test, Standardized Test, and Performance Task.
- Each performance task provides a scenario with minimal scaffolding, clear instructions to the student regarding criteria for acceptable work, and a detailed rubric. The teacher notes include an overview of the task, the standards alignment, and a sample answer.
- Daily activities provide multiple types of formative assessment in open-ended questions, creating tables, charts, graphs, and models; computation fluency, compare/contrast, re-state or show in another way, explain their process or reasoning, reflection, true/false to include correcting false statements, and critiquing others' work.
- Students can monitor their own progress on MATHia site; however there doesn't appear to be progress monitoring graphic organizers or such outside of that resource.

Materials give all students extensive opportunities and support to explore key concepts.

*Statements of appraisal and supporting evidence:*

- The student edition has a variety of activities that give students extensive opportunities and support to explore key concepts. In every activity, students will build a deep understanding of mathematics through a variety of activities: real-world problems, sorting activities, work examples, or analyzing sample work.
- The teacher's edition provides facilitation notes for each activity, including lesson objective, procedural cues, questions to ask at each stage of the activity, "look-fors" while students work, group/partner pairing, and a summary statement.
- In most lessons, differentiation strategies are suggested for struggling learners and possible misconceptions. There are some lessons that suggest differentiation strategies to extend the learning for students working at a faster pace.
- Throughout instruction, ELL Tips are placed for teachers at point-of-use on the mini-lesson page in the Teacher's Instruction.
- The Teacher's Implementation Guide provides additional modifications to support ELL and struggling students. The student edition is noticeably wordy, and may be difficult for ELLs.

Materials support effective use of technology to enhance student learning. Digital materials are accessible and available in multiple platforms.

*Statements of appraisal and supporting evidence:*

- MATHia provides various reports for teachers and students including APLSE (Adaptive Personalized Learning ScorE), Session Report of day-to-day work, Standards Report, and Student Detail Report.
- MATHia features multiple instructional strategies to engage students including the following: unit overview short video, step-by-step demonstrations that are optional to students, multi-level hints,

glossary of mathematical terms, animations, explore tools, classification tools, problem-solving tools, and worked examples.
- This citation (https://www.carnegielearning.com/system-requirements) lists all of the system requirements for the computer based part of the series. District technology departments will have to have access to this information to check compatibility within the district.

Materials can be easily customized for individual learners.

*Statements of appraisal and supporting evidence:*
- Through MATHia, students receive 1-to-1 adaptive math coaching, providing a personalized learning path and ongoing formative assessment.
- MyPL contains a video library. Long+Live+Math website gives math education members access to special content, events, meetups, book clubs, etc.
- The step by step part in the Student Edition demonstrates how to use the tools in lessons by guiding students step-by-step procedure to learn the concept.

Materials take into account cultural perspectives.

*Statements of appraisal and supporting evidence:*
- Materials encourage critical pedagogy by reasoning about math, writing their solutions, justifying their strategies, and sharing their knowledge with their peers.
- Intentional mathematics designed to ensure students build understanding coherently within and across grades, learn through experimentation, creativity, and false starts to persevere in problem solving, are taught with multiple representations of math concepts, and the ability to transfer what they have learned with what they are learning.

**Reviewer Professional Summation** - *These materials are reviewed by Level II and Level III educators from across New Mexico. The reviewers have brought their knowledge, experience and expertise into the review of these materials. They offer here their individual summary of the material as a whole.*

Reviewer #34 background and experience: Level III educator from Eastern NM, B.S. in Elementary Education and M.S. in Education with emphasis in Middle School Mathematics, 20 years teaching experience middle school math

*Professional summary of material:*
Carnegie Learning, Grade 6 is an extremely well thought out and organized blended learning resource. Students are provided with ample opportunity to engage with all mathematical standards and practices through both textbook activities and individual one to one math coaching through MATHia, the online component that works with the textbook. This teacher's implementation guide helps teachers to supports English Language Learners by providing tips for how to best help these students develop skills in both mathematics and language. In addition, it provides ideas on how to differentiate material to meet the need of all students. The assessments for the course can be accessed through Edulastic and provide pre- and post-tests, standardized test practice, and end of topic tests to provide you with timely feedback of student performance. I would love to use this learning series in my own classroom.

Reviewer #35 background and experience: Level II educator from Northern NM with B.S. in Secondary Education: Major in Mathematics., 10 years teaching experience middle school -Math

*Professional summary of material:*
Carnegie Learning Course 1 Resource is well-designed material that offers variety of opportunities for students to be engaged and to work on a variety of activities from single to multi-step contextual problems. It provides an opportunity for students to analyze the importance of connecting multiple representations of mathematical concepts into real-world context. It also provides opportunities to work

in groups, not only to develop math skills, but to learn how to collaborate, communicate, and problem solve. Materials encourage critical pedagogy by reasoning about math, writing their solutions and justifying their strategies. Through the Mathia Platform, students receive 1-to-1 adaptive math coaching, providing a personalized learning path and ongoing formative assessment. It delivers the right content at the right time to each student, ensuring just the right amount of challenge to push them productively. The Teacher's Implementation Guides has effective lesson structure and pacing. The Content at Glance is provided, and it highlights the sequence of topics and the number of blended Instructional days. Facilitation notes are provided in each lesson to fully support educators in the planning process.

Reviewer #36 background and experience: Level III educator from Southern NM with a B.S. in Elem. Educ. and a M.A. in Mathematics Educ., 18 years experience in middle school math education.

*Professional summary of material:*

Carnegie Learning Course 1 uses a different approach to the typical math book. You will not find example problems and pages filled with practice problems. The Carnegie Learning publishers, rather, went with a deeper, not wider approach, that fully aligns to Common Core Standards in a coherent progression. Student texts may be difficult for some ELL students as they are more text-driven than the standard math textbook. However, I did find the text to be written at an appropriate level, incorporating many diagrams, pictures, dialogue bubbles, and vocabulary reminders to assist students. The program consists of consumable textbooks and MATHia (1-on-1 math tutoring and data analysis software). The teacher's edition provides facilitation notes to support teacher lesson planning, including materials, lesson overview, standards addressed, essential ideas, lesson structure, and pacing. There is great detail in how to facilitate each daily activity, what questions to ask students throughout the learning stages, differentiation strategies, ELL tips, common misconceptions, and a summary statement.

Carnegie encourages students to work and discuss in small groups or partners while working from the textbook on real-world problem solving, discovery, and rigorous conceptual understanding. Carnegie also realizes the importance of allowing time for independent learning, practice, and reflection with the use of the MATHia software and Talk-the-Talk reflections. Assessments for the text come in many formats, so as to provide the teacher flexibility in the data collected. I am personally intrigued to try this series in my own classroom.

# Review Team Appraisal of Title

**(K-8 Mathematics)**

This appraisal form is provided for use by educators responsible for the selection of instructional materials for implementation with districts and charter schools across New Mexico to meet the needs of their student populations.

This appraisal form should be used in conjunction with the publisher provided Form D: Research Based Effectiveness Determination that supports this reviewed material which can be found on the Instructional Material Bureau website.

https://webnew.ped.state.nm.us/bureaus/instructional-materials/the-adoption-cycle/

| | | | |
|---|---|---|---|
| IM Title | Middle School Math Solutions Course 2 | Publisher | Carnegie Learning |
| SE ISBN | 9781609728908 | TE ISBN | 9781609728809 |
| SW ISBN | 9780000028588 (ISBN 9781609728588) | Grade Level/Content | Grade 7 |

**Core Material Designation** *(Core Material is - the comprehensive print or digital educational material, including basal material, which constitutes the necessary instructional components of a full academic course of study in those subjects for which the department has adopted content standards and benchmarks.*)

Recommended __X____ Recommended with Reservations _____ Not Recommended _____

**Total Score**

| Reviewer #34 | Reviewer #35 | Reviewer #36 | Average Score |
|---|---|---|---|
| __95.17%_____ | _96.83%_____ | __98.33%_____ | _96.78%_____ |

**Standards Review** - *Materials are reviewed for alignment with the state adopted content standards, benchmarks and performance standards.*

| Reviewer #34 | Reviewer #35 | Reviewer #36 | Average Score |
|---|---|---|---|
| __99.30%_____ | _96.80%_____ | _99.76%_____ | __98.62%_____ |

| Materials align with grade level standards. |
|---|
| *Statements of appraisal and supporting evidence:*<br>● Modules begin with a "Learning Together" chart that shows upcoming topics, standards addressed, number of days expected to teach the lessons, highlights of prior learning needed, and new learning that will take place.<br>● Materials are aligned with common core state standards within the grade level. The standards overview in the Teacher's Implementation Guide provides a mapping of the course content to the standards. A learning goal is provided in each lesson that represents the targeted standard.<br>● Students are given a connection to prior learning. |
| Materials align to standards for mathematical practice. |
| *Statements of appraisal and supporting evidence:* |

IM= Instructional Material SE= Student Edition TE= Teacher Edition SW= Student Workbook

- The materials give an opportunity for students to use different mathematical models like ratio tables, number lines, diagrams, graphs, and equations. Each lesson provides opportunities for students to think, reason and communicate.
- The materials give students daily opportunities to discuss, model, investigate, explain, interpret, compare/contrast, critique, estimate, represent a problem in a different way, and solve problems with varying strategies.
- The materials provide opportunities for students to make sense of mathematics by reasoning through problem solving, writing, discussing and by using concrete or visual representations like tables, diagrams, graphs, and equations. Each lesson provides opportunities for students to think, reason and communicate their understanding.

Materials show aspects of rigor.

*Statements of appraisal and supporting evidence:*

- Materials have a variety of activities that would help the students develop conceptual understanding through connections among concepts of each lesson, provide opportunity to students to perform different operations using algorithm, and use a variety of single and multi-step solution in real-world context to make meaning of content.
- Students are provided with a balance of rigorous opportunities to learn with conceptual understanding by making connections among concepts; procedural skill and fluency by supporting students with multiple strategies for solving, viewing, and representing problems; and application of mathematical concepts and skills through real-world, single and multi-step contextual problems.
- Materials have a variety of activities that would help students develop understanding by using concrete or visual representations. It has a variety of routine and non-routine problems for practice to build fluency and to provide opportunities for students to make their own assumptions or simplification in order to apply the mathematics content in a real-world context.

**Math Content Review** - *Materials are reviewed for relevant criteria pertaining to the support for teachers and students in the specific reviewed content area.*

| Reviewer #34 | Reviewer #35 | Reviewer #36 | Average Score |
|---|---|---|---|
| __92.86%_____ | _100.00%_____ | ___92.86%____ | _95.24%_____ |

Materials are consistent with grade level content, supporting the intent of the delivery and understanding of mathematics.

*Statements of appraisal and supporting evidence:*

- The content of the materials is consistent within the grade level. The lesson structure highlights how the parts of the lesson fit within the instructional design: Engage, Develop and Demonstrate.
- The publisher offers many online supports (video library).
- Adult-level explanations and examples are not provided in the Teacher's Implementation Guide.
- In the teacher's edition each lesson is preceded with Facilitation Notes which include questions to ask, things to look for as students work, common misconceptions, differentiation strategies, and a summary objective of the lesson.

Materials support student learning of mathematics.

IM= Instructional Material SE= Student Edition TE= Teacher Edition SW= Student Workbook

*Statements of appraisal and supporting evidence:*

- In the teacher's edition, each lesson is preceded with Activity Facilitation Notes. Every activity recommends students work with a partner or small group to complete the questions in the activity, then share responses as a class.
- Student textbooks are consumable, as are the Skills Practice workbooks, and align to each other. The text provides varying formats of the skills and content that students need, but the Skills Practice workbook does not reinforce every lesson or concept.
- MATHia software is composed of the same 5 modules as the course textbook. The modules are divided into several units consisting of Workspaces, made up of individual problems. It provides feedback and contextual hints to help students persevere and solve problems. As students work, MATHia tracks each action and plans the next activity accordingly.
- Each lesson in the materials provides an opportunity for students to work on a variety of activities from single to multi-step contextual problems.
- Each module provides a "Carnegie Learning Family Guide" consisting of a description of the topics to be covered, an explanation of "where have we been and where are we going", examples of the representations/models students will be using, a Math myth bust promoting math mindset, talking points/questions to ask/things to look for in real-life, and key terms.

**All Content Review** - *Materials are reviewed for relevant criteria pertaining to the support for teachers and students in the material regarding the progression of the standards, lesson structure, pacing, assessment, individual learners and cultural relevance.*

| Reviewer #34 | Reviewer #35 | Reviewer #36 | Average Score |
|---|---|---|---|
| __85.37%_____ | __96.34%_____ | __95.73%_____ | _92.48%_____ |

Materials are consistent with the progressions in the standards.

*Statements of appraisal and supporting evidence:*

- The warm-up at the beginning of each lesson shows how the new concept connects to the prior knowledge in the previous grade.
- Each module begins with a "Learning Together" chart with upcoming topics, standards addressed, number of days expected to teach the lessons, highlights of prior learning needed and new learning that will take place.
- Publisher provides teachers with a description of student entry point in the Topic Overview, relating prior knowledge and how these tie to the new concepts.

Materials foster coherence through connections at a single grade, where appropriate and required by the standards.

*Statements of appraisal and supporting evidence:*

- Learning goals are provided in every lesson. It communicates with students to encourage self-monitoring of their learnings through targeted standards.
- Learning Goals are listed for teachers and students in each module overview to reference prior to a new lesson.
- Learning Together chart highlights lesson progression, standards covered, and standards reviewed (including those from earlier grade levels)
- There were two or more standards/learning goals provided in each topic that are connected.

Materials are well designed and take into account effective lesson structure and pacing.

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*Statements of appraisal and supporting evidence:*

- Connections to prior learning and connections to future learning within each Module, including an overview. The standards of the supporting work were positioned to reinforce the major work of the grade.
- Students are assessed using the following: Warm-up problem to access needed prior knowledge, open-ended questions in the Getting Started section, construct a model, calculate, compare, predict, explain reasoning, record on a table, reflection, and correct work examples.
- Problems have adequate spacing between illustrations and questions, room for students to solve neatly in the book and not be distracted by too many problems.
- There are a glossary, footnotes, index of math symbols and alphabetical listing, and page numbers of concepts and terms.

Materials offer teachers resources and tools to collect ongoing data about student progress on the standards.

*Statements of appraisal and supporting evidence:*

- The student detail report in MATHia provides detailed information about students' progress and performance at the module, unit, and workspace levels. This will help the teacher collect ongoing data about student progress. Also, the standard report in MATHia is designed to provide an easy view into how students are mastering or have mastered specific standards.
- Assessment overviews are available online for teachers. These include item standards analysis for the Pre-Test, Post-Test, End of Topic Test, Standardized Test, and Performance Task.
- Each performance task provides a scenario with minimal scaffolding, clear instructions to the student regarding criteria for acceptable work, and a detailed rubric. The teacher notes include an overview of the task, the standards alignment, and a sample answer.
- Daily activities provide multiple types of formative assessment in open-ended questions, creating tables, charts, graphs, and models; computation fluency, compare/contrast, re-state or show in another way, explain their process or reasoning, reflection, true/false to include correcting false statements, and critiquing others work.
- Students can monitor their own progress on MATHia site; however, there doesn't appear to be progress monitoring graphic organizers or such outside of that resource.

Materials give all students extensive opportunities and support to explore key concepts.

*Statements of appraisal and supporting evidence:*

- The student edition has a variety of activities that give students extensive opportunities and support to explore key concepts. In every activity, students will build a deep understanding of mathematics through a variety of activities: real-world problems, sorting activities, work examples or analyzing sample work.
- The teacher's edition provides facilitation notes for each activity, including lesson objective, procedural cues, questions to ask at each stage of the activity, "look-fors" while students work, group/partner pairing, and a summary statement.
- In most lessons, differentiation strategies are suggested for struggling learners and possible misconceptions. There are some lessons that suggest differentiation strategies to extend the learning for students working at a faster pace.
- Throughout instruction, ELL Tips are placed for teachers at point-of-use on the mini-lesson page in the Teacher's Instruction.
- The Teacher's Implementation Guide provides additional modifications to support ELL and struggling students. Student edition is noticeably wordy and may be difficult for ELL's.

Materials support effective use of technology to enhance student learning. Digital materials are accessible and available in multiple platforms.

IM= Instructional Material SE= Student Edition TE= Teacher Edition SW= Student Workbook

*Statements of appraisal and supporting evidence:*

- The citation (https://www.carnegielearning.com/system-requirements) lists all of the system requirements for the computer based part of the series. District technology departments will have to have access to this to check compatibility in the district.
- MATHia provides various reports for teachers and students including APLSE (Adaptive Personalized Learning Score), Session Report of day-to-day work, Standards Report, and Student Detail Report.
- MATHia features multiple instructional strategies to engage students, including the following: unit overview short video, step-by-step demonstrations that are optional to students, multi-level hints, glossary of mathematical terms, animations, explore tools, classification tools, problem-solving tools, and worked examples.

Materials can be easily customized for individual learners.

*Statements of appraisal and supporting evidence:*

- Through MATHia, students receive 1-to-1 adaptive math coaching, providing a personalized learning path and ongoing formative assessment.
- Students compare two different advertising strategies: percent off the regular price and percent of regular price.
- MyPL contains a video library. Long+Live+Math website gives math education members access to special content, events, meetups, book clubs, etc.

Materials take into account cultural perspectives.

*Statements of appraisal and supporting evidence:*

- Through MATHia, students receive 1-to-1 adaptive math coaching, providing a personalized learning path and ongoing formative assessment.
- MyPL contains a video library. Long+Live+Math website gives math education members access to special content, events, meetups, book clubs, etc.
- The step by step part in Student Edition demonstrate how to use the tools in lessons by guiding students step-by-step procedure to learn the concept.
- Animation in Mathia Platform provide students an opportunity to watch, pause, and re-watch demonstrations of various mathematical concepts.

**Reviewer Professional Summation** - *These materials are reviewed by Level II and Level III educators from across New Mexico. The reviewers have brought their knowledge, experience and expertise into the review of these materials. They offer here their individual summary of the material as a whole.*

Reviewer #34 background and experience: Level III educator from Eastern, NM with a BS in Elementary Education and a MS in Education with an emphasis in Middle School Math; 20 years' experience teaching middle school math

*Professional summary of material:*

Carnegie Learning, Grade 7 is another extremely well thought out and organized blended learning program from the Middle School Math Solutions series. Students are provided with ample opportunity to engage with all mathematical standards and practices through both textbook activities and individual one to one math coaching through MATHia, the online component that works with the textbook. This teacher's implementation guide helps teachers to support English Language Learners by providing tips for how to best help these students develop skills in both mathematics and language. In addition, it provides ideas on how to differentiate material to meet the needs of all seventh-grade students. The assessments for the course can be accessed through Edulastic and provide pre and post-tests, standardized test

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practice, and end of topic tests to provide you with timely feedback of the students' performance. Carnegie has hit another home run with their Course 2 material for seventh grade.

Reviewer #35 background and experience: Level II educator from Northern, NM with a B.S in Secondary Education major in Mathematics., 10 years' experience of teaching middle school -Math

*Professional summary of material:*

Carnegie Learning Course 2 Resource has well-designed materials that offers a variety of opportunities for students to be engaged and to work on a variety of activities from single to multi-step contextual problems. Materials provide supports to create structures for grade appropriate arguments and explanations, diagrams, mathematical models, etc. to strengthen student learning. It provides opportunities for students to analyze the importance of connecting multiple representations of mathematical concepts into real-world context. It also provides opportunities to work in groups, not only to develop math skills, but to learn how to collaborate, communicate and problem solve. Through the Mathia Platform, students receive 1-to-1 adaptive math coaching, providing a personalized learning path and ongoing formative assessment. It delivers the right content at the right time to each student, ensuring just the right amount of challenge to push them productively. The Teacher's Implementation Guides has effective lesson structure and pacing. Also, it provides educators different differentiation strategies to support students who struggle, to extend certain activities for students who are advanced in their understanding of content, and to support English Language Learners. The Content at a Glance is provided, and it highlights the sequence of topics and the number of blended Instructional days. Facilitation notes are provided in each lesson to fully support educators in the planning, guiding, and facilitating student learning.

Reviewer #36 background and experience: Level III educator from Southern NM with a B.S. in Elementary Education, M.A. in Math Education and 18 years' experience in middle school math

*Professional summary of material:*

Carnegie Learning, Course 2 delivers a curriculum aligned to Common Core Standards, with an emphasis on deep, contextual learning through discovery, collaboration, discussions, engaging activities, and reflection that our students need to learn and grow mathematically. This is not the traditional textbook with a handful of example problems, followed by 20-30 problems. Instead, Carnegie uses lessons made up of 3-5 related activities, in which students work in partners or small groups, each taking a 50-minute class period. Students are provided independent practice and reflection time through MATHia, the online component, a Talk the Talk formative assessment, a Practice page within the text, and a Skills Practice workbook. Also, different from other books, the student textbook is consumable. Students are given adequate space to make notes, answer, explain, model, and compute right in their book. The publisher provides multiple formats of assessments available online and progress monitoring reports through MATHia. After sampling several lessons of the MATHia platform, I was pleased with its design, varying levels of rigor, opportunities for different entry levels with optional step-by-step directions, video examples, hints, glossary, and the diverse types of problems. All-in-all, the book and its supplemental material are well-designed, research-based, and make the connection between content and practice easier to implement in today's classrooms. The only concern I have with implementing this series is the accessibility of technology in some schools is limited and the size and weight of the text may be difficult for transporting daily in backpacks or storing in the classroom.

# Review Team Appraisal of Title

**(K-8 Mathematics)**

This appraisal form is provided for use by educators responsible for the selection of instructional materials for implementation with districts and charter schools across New Mexico to meet the needs of their student populations.

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https://webnew.ped.state.nm.us/bureaus/instructional-materials/the-adoption-cycle/

| | | | |
|---|---|---|---|
| IM Title | Middle School Math Solutions Course 3 | Publisher | Carnegie Learning |
| SE ISBN | 9781609728915 | TE ISBN | 9781609728830 |
| SW ISBN | 9780000028588 (ISBN 9781609728588) | Grade Level/Content | Grade 8 |

**Core Material Designation** *(Core Material is - the comprehensive print or digital educational material, including basal material, which constitutes the necessary instructional components of a full academic course of study in those subjects for which the department has adopted content standards and benchmarks.*)

Recommended __X____ Recommended with Reservations _____ Not Recommended _____

**Total Score**

| Reviewer #34 | Reviewer #35 | Reviewer #36 | Average Score |
|---|---|---|---|
| __96.33%_____ | __95.67%_____ | _96.83%_____ | __96.28%_____ |

**Standards Review** - *Materials are reviewed for alignment with the state adopted content standards, benchmarks and performance standards.*

| Reviewer #34 | Reviewer #35 | Reviewer #36 | Average Score |
|---|---|---|---|
| _99.99%_____ | __96.94%_____ | __97.50%_____ | _98.14%_____ |

| Materials align with grade level standards. |
|---|
| *Statements of appraisal and supporting evidence:*<br>● Materials are aligned with common core state standards within the grade level. The standards overview in the Teacher's Implementation Guide provides a mapping of the course content to the standards. The earning goal provided in each lesson represents the targeted standard.<br>● Modules begin with a "Learning Together" chart that shows upcoming topics, standards addressed, number of days expected to teach the lessons, highlights of prior learning needed and new learning that will take place.<br>● Students are given a connection to prior learning. |
| Materials align to standards for mathematical practice. |
| *Statements of appraisal and supporting evidence:* |

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- The materials give students daily opportunities to discuss, model, investigate, explain, interpret, compare/contrast, critique, estimate, represent a problem in a different way, and solve problems with varying strategies.
- The materials provide opportunities for students to make sense of mathematics by reasoning through problem solving, writing, discussing and by using concrete or visual representations like tables, diagrams, graphs, number lines and equations. Each lesson provides opportunities for students to think, reason and communicate their understanding.

Materials show aspects of rigor.

*Statements of appraisal and supporting evidence:*

- Materials have a variety of activities that would help the students develop conceptual understanding through connections among concepts of each lesson; provide opportunity to students to perform different operations using algorithm; and use a variety of single and multi-step solution in real-world context to make meaning of content.
- Students are provided with a balance of rigorous opportunities to learn with conceptual understanding by making connections among concepts; procedural skill and fluency by supporting students with multiple strategies for solving, viewing, and representing problems; and application of mathematical concepts and skills through real-world, single and multi-step contextual problems.

**Math Content Review** - *Materials are reviewed for relevant criteria pertaining to the support for teachers and students in the specific reviewed content area.*

| Reviewer #34 | Reviewer #35 | Reviewer #36 | Average Score |
|---|---|---|---|
| __92.86%_____ | _96.43%_____ | __89.29%_____ | _92.86%_____ |

Materials are consistent with grade level content, supporting the intent of the delivery and understanding of mathematics.

*Statements of appraisal and supporting evidence:*

- The content of the materials is consistent within the grade level. The lesson structure highlights how the parts of the lesson fit within the instructional design: Engage, Develop and Demonstrate.
- The publisher offers many online supports (video library).
- Adult-level explanations and examples are not provided in the Teacher's Implementation Guide.
- In the teacher's edition each lesson is preceded with Facilitation Notes which include questions to ask, things to look for as students work, common misconceptions, differentiation strategies, and a summary objective of the lesson.

Materials support student learning of mathematics.

*Statements of appraisal and supporting evidence:*

- Student textbooks are consumable, as are the Skills Practice workbooks, and align to each other. The text provides varying formats of the skills and content that students need, but the Skills Practice workbook does not reinforce every lesson or concept.
- MATHia software is composed of the same 5 modules as the course textbook. The modules are divided into several units consisting of Workspaces, made up of individual problems. It provides feedback and contextual hints to help students persevere and solve problems. As students work, MATHia tracks each action and plans the next activity accordingly.
- Each lesson in the materials provides an opportunity for students to work on a variety of activities from single to multi-step contextual problems.

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- Each module provides a "Carnegie Learning Family Guide" consisting of a description of the topics to be covered, an explanation of where have we been and where are we going, examples of the representations/models students will be using, a Math myth bust promoting math mindset, Talking points/questions to ask/things to look for in real-life, and key terms.

**All Content Review** - *Materials are reviewed for relevant criteria pertaining to the support for teachers and students in the material regarding the progression of the standards, lesson structure, pacing, assessment, individual learners and cultural relevance.*

| Reviewer #34 | Reviewer #35 | Reviewer #36 | Average Score |
|---|---|---|---|
| __87.80%_____ | __92.07%_____ | __96.34%_____ | __92.07%_____ |

| Materials are consistent with the progressions in the standards. |
|---|
| *Statements of appraisal and supporting evidence:*<br>● The warm-up at the beginning of each lesson shows how the new concept connects to the prior knowledge in the previous grade.<br>● Each module begins with a "Learning Together" chart with upcoming topics, standards addressed, number of days expected to teach the lessons, highlights of prior learning needed, and new learning that will take place.<br>● Publisher provides teachers with a description of student entry point in the Topic Overview, relating prior knowledge and how these tie to the new concepts. |
| Materials foster coherence through connections at a single grade, where appropriate and required by the standards. |
| *Statements of appraisal and supporting evidence:*<br>● Learning Goals are listed for teachers and students in each module overview to reference prior to a new lesson.<br>● Learning Together chart highlights lesson progression, standards covered, and standards reviewed (including those from earlier grade levels)<br>● There were two or more standards/learning goals provided in each topic that are connected. |
| Materials are well designed and take into account effective lesson structure and pacing. |
| *Statements of appraisal and supporting evidence:*<br>● The Teacher's Edition, Student Edition, and Skills Practice Workbook are well-designed. These materials show effective lesson structure and pacing. The Content at a Glance is provided in the Teacher's Instructional Guide and highlights the sequence of topics and the number of blended instructional days.<br>● Connections to prior learning and connections to future learning within each Module, including an overview.<br>● Problems have adequate spacing between illustrations and questions, room for students to solve neatly in the book, and not be distracted by too many problems.<br>● Index of math symbols and alphabetical listing and page numbers of concepts and terms.<br>● The assignment part in each lesson gives students an opportunity to write their thinking, remember the concept, and practice the skills they have learned.<br>● Glossary provides examples of key concepts and shows visual representations. The online program, MATHia, also provides many graphics to help build student understanding. |

| Materials offer teachers resources and tools to collect ongoing data about student progress on the standards. |
|---|
| *Statements of appraisal and supporting evidence:*<br>● The student detail report in MATHia provides detailed information about students' progress and performance at the module, unit, and workspace levels. This will help the teacher collect ongoing data about student progress. Also, the standard report in MATHia is designed to provide an easy view into how students are mastering or have mastered specific standards.<br>● Assessment overviews are available online for teachers. These include item standards analysis for the Pre-Test, Post-Test, End of Topic Test, Standardized Test, and Performance Task.<br>● Each performance task provides a scenario with minimal scaffolding, clear instructions to the student regarding criteria for acceptable work, and a detailed rubric. The teacher notes include an overview of the task, the standards alignment, and a sample answer.<br>● Daily activities provide multiple types of formative assessment in open-ended questions, creating tables, charts, graphs, and models; computation fluency, compare/contrast, re-state or show in another way, explain their process or reasoning, reflection, true/false to include correcting false statements, and critiquing others work.<br>● Students can monitor their own progress on MATHia site; however, there doesn't appear to be progress monitoring graphic organizers or such outside of that resource. |
| Materials give all students extensive opportunities and support to explore key concepts. |
| *Statements of appraisal and supporting evidence:*<br>● The student edition has a variety of activities that give students extensive opportunities and support to explore key concepts. In every activity, students will build a deep understanding of mathematics through a variety of activities: real-world problems, sorting activities, work examples or analyzing sample work.<br>● The teacher's edition provides facilitation notes for each activity, including lesson objective, procedural cues, questions to ask at each stage of the activity, "look-fors" while students work, group/partner pairing, and a summary statement.<br>● In most lessons, differentiation strategies are suggested for struggling learners and possible misconceptions. There are some lessons that suggest differentiation strategies to extend the learning for students working at a faster pace.<br>● Throughout instruction ELL Tips are placed for teachers at point-of-use on the mini-lesson page in the Teacher's Instruction.<br>● Teacher's Implementation Guide, providing additional modifications to support ELL and struggling students. Student edition is noticeably wordy, and may be difficult for ELLs. |
| Materials support effective use of technology to enhance student learning. Digital materials are accessible and available in multiple platforms. |
| *Statements of appraisal and supporting evidence:*<br>● MATHia provides various reports for teachers and students including APLSE (Adaptive Personalized Learning ScorE), Session Report of day-to-day work, Standards Report, and Student Detail Report.<br>● MATHia features multiple instructional strategies to engage students, including the following: unit overview short video, step-by-step demonstrations that are optional to students, multi-level hints, glossary of mathematical terms, animations, explore tools, classification tools, problem-solving tools, and worked examples.<br>● This citation (https://www.carnegielearning.com/system-requirements) lists all of the system requirements for the computer based part of the series. District technology departments will have to have access to this information to check compatibility within the district. |

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| Materials can be easily customized for individual learners. |
|---|
| *Statements of appraisal and supporting evidence:*<br>● Through MATHia, students receive 1-to-1 adaptive math coaching, providing a personalized learning path and ongoing formative assessment.<br>● MyPL contains a video library. Long+Live+Math website gives math education members access to special content, events, meetups, book clubs, etc.<br>● The step by step part in the Student Edition demonstrates how to use the tools in lessons by guiding students step-by-step procedure to learn the concept.<br>● Animation in Mathia Platform provide students an opportunity to watch, pause, and re-watch demonstrations of various mathematical concepts. |
| Materials take into account cultural perspectives. |
| *Statements of appraisal and supporting evidence:*<br>● Materials encourage critical pedagogy by reasoning about math, writing their solutions, justifying their strategies, and sharing their knowledge with their peers.<br>● Intentional mathematics designed to ensure students build understanding coherently within and across grades, learn through experimentation, creativity, and false starts to persevere in problem solving, are taught with multiple representations of math concepts, and the ability to transfer what they have learned with what they are learning. |

**Reviewer Professional Summation** - *These materials are reviewed by Level II and Level III educators from across New Mexico. The reviewers have brought their knowledge, experience and expertise into the review of these materials. They offer here their individual summary of the material as a whole.*

| Reviewer #34 background and experience: Level III educator form Eastern NM; with a B.S. in Elementary Education; M.S. in Education with an emphasis in Middle School Mathematics; 20 years' teaching experience in middle school mathematics. |
|---|
| *Professional summary of material:*<br>Carnegie Learning, Grade 8 is another extremely well thought out and organized blended learning program from the Middle School Math Solutions series. Students are provided with ample opportunity to engage with all mathematical standards and practices through both textbook activities and individual one to one math coaching through MATHia, the online component that works with the textbook. The teacher's implementation guide helps teachers to support English Language Learners by providing tips for how to best help these students develop skills in both mathematics and language. In addition, it provides ideas on how to differentiate material to meet the needs of all eighth-grade students. At the end of each lesson students have an assignment that gives practice of the recently learned material, a section to stretch knowledge further, and a review of previously learned material. This constant spiraling of standards allows students to retain all skills. The assessments for the course can be accessed through Edulastic and provide pre- and post-tests, standardized test practice, and end of topic tests to provide you with timely feedback on student performance. Carnegie has hit a third home run with their Course 3 material for eighth grade. |
| Reviewer #35 background and experience: Level II educator from Northern NM., with a B.S. in Secondary Education., Major in Mathematics., 10 years' teaching experience middle school-Math |
| *Professional summary of material:*<br>Carnegie Learning Course 3 Resource is well-designed material that offers a variety of opportunities for students that would help develop conceptual understanding using concrete or visual representations. It has a variety of routine and non-routine problems for practice to build fluency. Materials provide |

supports to create structures for grade appropriate arguments and explanations, diagrams, mathematical models, etc. to strengthen student learning. Materials have a variety of problem types to engage students in reasoning about math. Thumbs up problems give students the opportunity to analyze viable methods and problem-solving strategies. Questions are presented to help students consider various strategies in-depth and to focus on an analysis of correct responses. It provides opportunities for students to analyze the importance of connecting multiple representations of mathematical concepts into real-world context. It also provides opportunities to work in groups, not only to develop math skills, but to learn how to collaborate, communicate and problem solve. Through the Mathia Platform, students receive 1-to-1 adaptive math coaching, providing a personalized learning path and ongoing formative assessment. It delivers the right content at the right time to each student, ensuring just the right amount of challenge to push them productively. The Teacher's Implementation Guide has effective lesson structure and pacing. Also, it provides educators different differentiation strategies to support students who struggle, to extend certain activities for students who are advanced in their understanding of content, and to support English Language Learners.

Reviewer #36 background and experience: Level III educator from Southern NM, with a B.S. in Elementary Education, an M.A. in Math Education, and 18 years' experience teaching middle school mathematics

*Professional summary of material:*

Carnegie Learning, Course 3 delivers a curriculum aligned to Common Core Standards, with an emphasis on deep, contextual learning through discovery, collaboration, discussions, engaging activities, and reflection that our students need to learn and grow mathematically. This is not the traditional textbook with a handful of example problems, followed by 20-30 problems. Instead, Carnegie uses lessons made up of 3-5 related activities, in which students work in partners or small groups, each taking a 50-minute class period. Students are provided independent practice and reflection time through MATHia, the online component, Talk the Talk formative assessment, a Practice page within the text, and a Skills Practice workbook. Also, different from other books, the student textbook is a consumable. Students are given adequate space to make notes, answer, explain, model, and compute right in their book. The publisher provides multiple formats of assessments available online and progress monitoring reports through MATHia. After sampling several lessons of the MATHia platform, I was pleased with its design, varying levels of rigor, opportunities for different entry points with optional step-by-step directions, video examples, hints, glossary, and the diverse types of problems. All-in-all, the book and its supplemental material are well-designed, research-based, and make the connection between content and practice easier to implement in today's classrooms. The only concern I have with implementing this series is the accessibility to technology in some schools is limited and the size and weight of the text may be difficult for transporting daily in backpacks or storing in the classroom.