

Review Team Appraisal of Title

(9-12 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/>

Text Title	High School Math Solution Algebra I	Publisher	Carnegie Learning
SE ISBN	9781934239803	TE ISBN	9781934239827
SW ISBN	9780000048588 (ISBN 9781609728588)	Grade Level/Content	Grade 9-10

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 Recommended with Reservations Not Recommended

Total Score

Reviewer #61	Reviewer #62	Reviewer #63	Average Score
__93.3%__	__85.6%__	__94.5%__	__91.1__

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

Reviewer #61	Reviewer #62	Reviewer #63	Average Score
__98%__	__93.2%__	__97.5%__	__96.3%__

Materials align with grade level standards.
<p><i>Statements of appraisal and supporting evidence:</i></p> <ul style="list-style-type: none"> ● The language of the material reflects the language of the standards. <ul style="list-style-type: none"> ○ The material uses appropriate terminology and vocabulary that is suitable for the content of the grade level. Sample terms used: <ul style="list-style-type: none"> ■ residual, correlation, causation, function notation, recursive, geometric, arithmetic, average rate of change ● All of the math standards for the grade level are evident and listed. <ul style="list-style-type: none"> ○ The vast majority of the 69 standards for Algebra 1 are addressed, and almost always to the depth intended by the standard. ○ The majority of time that students spend in the mathematics is in the major clusters of the standards for Algebra 1.

Materials align to standards for mathematical practice.

Statements of appraisal and supporting evidence:

- Math Practice 1
 - Students make sense of problems when they connect different representations, such as explicit formulas for sequences and rewriting those as functions. Students continue to make sense when they compare the two representations and the corresponding inputs. Students persevere when they provide justifications for their responses.
- Math Practice 2
 - Students are often given multiple representations and asked to make connections between the representations. They use the connections to make conclusions and they use the context of the problems to help inform the mathematics.
- Math Practice 3
 - Students use the strategy of Thumbs up/Thumbs down to compare work samples and make arguments about which solution/approach is correct.
 - For example, a worked out solution is shown for two students. One student is correct but the other is not. It is up to the learner to critique the reasoning of each student to determine which work is correct and construct a viable argument as to why.
- Math Practice 4
 - Students are given a real life situation and asked to model the context with mathematics. They must take information and extract only the important components and disregard what is inconsequential. Further, they are asked to judge the reasonableness of their solutions in terms of the context.
- Math Practice 5
 - The student is asked to use computer software, graphing calculator, area models, formulas, etc. when appropriate.
- Math Practice 6
 - Students must attend to precision by communicating their reasoning precisely and effectively, using correct and appropriate mathematical vocabulary.
- Math Practice 7
 - Students have multiple structures available to them for the larger task. They use the individual parts to guide their process as they make sense of the mathematics. They use graphs and algebra to make sense of the solution and combine those solutions to make connections.
- Math Practice 8
 - Students are asked to complete a table and examine patterns and make generalizations from that pattern.

Materials show aspects of rigor.

Statements of appraisal and supporting evidence:

- Students routinely engage in activities that are real world applications that maintain a blend of deepening conceptual knowledge and attention to procedural fluency. Students must pay attention to a variety of representations of contexts that are aimed at building conceptual fluency but double as opportunities for students to practice procedural skills.
- Each module is composed of tasks that range from entry level to advanced difficulty. They range from application type tasks to building procedural fluency to developing conceptual understanding.

- The materials show a balance of conceptual understanding, procedural fluency, and application of their mathematical knowledge. Each lesson within a module builds conceptually with opportunities to practice the procedures and mechanics of the math.

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

Reviewer #61	Reviewer #62	Reviewer #63	Average Score
___83%___	___68%___	___96%___	___82%___

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

Statements of appraisal and supporting evidence:

- Students spend the entire course in the mathematics in the major clusters of the standards for Algebra 1. Very little time is spent on prerequisite or additional content.
- The material uses grade level academic language consistent with Common Core.
- The material spends the majority of time focusing on the major content for Algebra 1. The material focuses on delivering material so that students have opportunities to collaborate and explore mathematics on a conceptual level.
- Material provided prior knowledge that was expected and where the lesson was heading, allowing students to see the progression and final results expected.

Materials support student learning of mathematics.

Statements of appraisal and supporting evidence:

- The modules and supporting lessons within the materials are consistent with grade level content and do not deter from Algebra 1 Common Core Standards.
- The modules were aligned in a sequential order that made sense and followed a progression, building on previous knowledge.
- Students have opportunities to engage in mathematics by activating prior knowledge as an entry point into a task.

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 #61	Reviewer #62	Reviewer #63	Average Score
___83%___	___69%___	___86.3%___	___79.4%___

Materials are coherent and consistent with the high school standards which all students should study in order to be college and career ready.

Statements of appraisal and supporting evidence:

- Material is structured in a way so that students have entry points into tasks and multiple ways to advance their knowledge from that entry point.
- The material uses appropriate terminology and vocabulary that is suitable for the content of the grade level.
- Problems are engaging for high school level students and contexts are not contrived.

- Each module builds off of the previous module and/or prior knowledge.
- Many lessons refer to the previous or future lessons.
- Lessons had numerous examples and exercises to be able to assess the students' progress.

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

Statements of appraisal and supporting evidence:

- Suggested pacing is based off of a 50 minute period.
- Bell work/ Warmup is provided at the beginning of each lesson.
- The coherence of the curriculum lends itself to students learning at an appropriate progression.

Materials support teacher planning, learning, and understanding of the standards.

Statements of appraisal and supporting evidence:

- The Teacher Implementation Guide offers facilitation notes, "As students work, look for", questions to ask, and differentiation strategies at the beginning of each activity.
- The module overview and subsequent topic overview describes the mathematics that are being developed within the module and topics.
- The curriculum does not provide opportunities for teachers to engage in a deeper study of the mathematics behind the standards.

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

Statements of appraisal and supporting evidence:

- MATHia software tracks student progress through each module.
- Lessons contain a formative assessment routine where students demonstrate understanding of the material for the lesson and informs decisions that teachers can make to address gaps in understanding.
- Lessons contain a Performance Task with student rubric.

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

Statements of appraisal and supporting evidence:

- Lessons tend to lend themselves to multiple representations of key concepts (table, equation, graph, etc.).
- The implementation guides provide strategies to differentiate and scaffold for students who are struggling and who are accelerating.

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:

- Technology is recommended when creating regression models.
- Software is supported on Windows, Apple, and Chromebooks.
- Software is NOT recommended for smartphones.
- Teachers have access to a variety of reports on how students are progressing towards mastery of procedural skills through the MATHia software.

Materials can be easily customized for individual learners.

Statements of appraisal and supporting evidence:

- MATHia software provides 1-to-1 adaptive practice.
- Teacher materials offer differentiation strategies for struggling learners.
- Assignments at the end of lessons provide "stretch" problems for advanced learners.

Materials take into account cultural perspectives.

Statements of appraisal and supporting evidence:

- There is little evidence of cultural or language perspectives. Most examples and problems use activities that are familiar with students from New Mexico (i.e. magic show, skiing, and foods) but the cultural aspect is not specifically addressed. With the population of New Mexico being primarily Hispanic and Native-American, the team expected more examples. They were not clearly evident on cultural errors or literacy issues.

- There is no evidence of bias within the curriculum.

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 #61 background and experience: I have 10 years of experience in education in New Mexico. I am a current content specialist for high school mathematics. I have previously taught high school mathematics and supported middle school mathematics teachers. I have taught students of all levels, from Algebra 1 Intervention to AP Calculus. I am a level 3 teacher with a Master's degree. Additionally, I have worked with the NMPED in using the Making Sense of Student Work Protocol and revising the NM End of Course exams for mathematics.

Professional summary of material:

I found this material to be an engaging and thorough resource for students. I could envision using this with my students and seeing profound success as they make connections across mathematical topics. The consistency with the routines and structures of the material may seem tedious or boring but is so valuable for students and only contributes to their success. A potential snag is that the curriculum assumes that students have the prerequisite knowledge to be successful. Provided that teachers can identify and adequately address those gaps, the material has strong potential. At the same time, the curriculum does a good job of providing tasks that have multiple entry points, so perhaps those prerequisite skills are not as important as traditionally perceived. The online companion is a great resource for students to use to practice procedural skills to build off of the conceptual understanding that they develop in the classroom setting. I would recommend this material with very limited reservations.

Reviewer #62 background and experience: I have been a mathematics teacher in New Mexico for 17 years. I was in the public sector for 8 years and now in the private sector for 9 years. I have been on the NMPED textbook adoption committee for mathematics two previous times and this is my third iteration. I have taught mathematics subjects from pre-Algebra to Pre-Calculus along with middle school credit recovery during summer school. I have been on the PARCC review committee on two occasions.

Professional summary of material:

I found this book comprehensive and when used properly with all the material a very good resource. However, I also found the books cumbersome with the TIG having two large volumes and the student edition large. Since they are soft-covered I wonder what the durability of the book is for a year and whether or not the pages will become separated from the binding. Overall, I would still recommend this textbook because it covers all the standards, has sufficient rigor for all levels, and gives many options for differentiating instruction. There is a limitation on using smartphones and iPads.

Reviewer #63 background and experience: I have been teaching in New Mexico for 15 years. These have all been at the high school level with experience in Algebra 1, Geometry, Algebra 2 and Trig. I am a Level 3 teacher with a Master's degree in teaching from NMSU. I have worked previously with PED on end of course exams, textbook adoption, and SBA anchor pulling/ item analysis. I was also previously a member of the NM Educator Leader Cadre which participated in the PARCC rollout conference in Chicago, IL.

Professional summary of material: This material provides the teacher with tools to deliver the Common Core State Standards at grade level expectations. There is not much (if any) time spent on remedial or review standards from middle school as the student is expected to arrive to this class at a proficient level. This material uses the language of Common Core throughout each module. The material is heavy on conceptual understanding and the meaning and justification behind why the math works and makes sense. The material also allows for the student to demonstrate understanding in multiple ways and to

make connections between those methods. If I were looking to prepare my students for Algebra 1 success through the lens of Common Core readiness, this would be a material I would advocate for to deliver my instruction. Additionally, this is not a resource that the teacher can simply open to page 1 at the beginning of class and start teaching without any planning beforehand. There is intentional design to this book that requires intentional planning and thought out lesson delivery with pre-planned questions and differentiation moves.

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(9-12 Mathematics)

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Text Title	High School Math Solution Geometry	Publisher	Carnegie Learning
SE ISBN	9781609725662	TE ISBN	9781609725686
SW ISBN	9780000058588 (ISBN 9781609728588)	Grade Level/Content	Grade 9-12

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 #61 94%	Reviewer #62 93%	Reviewer #63 94%	Average Score 93.6%
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Standards Review - *Materials are reviewed for alignment with the state adopted content standards, benchmarks and performance standards.*

Reviewer #61 98%	Reviewer #62 95%	Reviewer #63 96%	Average Score 96.7%
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Materials align with grade level standards.
<p><i>Statements of appraisal and supporting evidence:</i></p> <ul style="list-style-type: none"> ● The language of the material reflects the language of the standards. <ul style="list-style-type: none"> ○ The material uses appropriate terminology and vocabulary that is suitable for the content of the grade level. <ul style="list-style-type: none"> ■ Construction, bisector, rigid motion, congruence, similarity, chord, probability, conditional, etc. ● All of the math standards for the grade level are evident and listed. <ul style="list-style-type: none"> ○ The vast majority of the 54 standards for Geometry are addressed, and almost always to the depth intended by the standard. ○ The majority of time that students spend in the mathematics is in the major clusters of the standards for Geometry.
Materials align to standards for mathematical practice.

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

Statements of appraisal and supporting evidence:

- Math Practice 1
 - Students make sense of problems when they connect different representations, such as deriving formulas then applying those formulas to solving problems. Students persevere when they provide justifications for their responses.
- Math Practice 2
 - Students are often given multiple representations and asked to make connections between the representations. They use the connections to make conclusions and they use the context of the problems to help inform the mathematics.
- Math Practice 3
 - Students use the strategy of Thumbs up/Thumbs down to compare work samples and make arguments about which solution/approach is correct.
 - For example, a worked out solution is shown for two students. One student is correct but the other is not. It is up to the learner to critique the reasoning of each student to determine which work is correct and construct a viable argument as to why.
- Math Practice 4
 - Students are given a real life situation and asked to model the context with mathematics. They must take information and extract only the important components and disregard what is inconsequential. Further, they are asked to judge the reasonableness of their solutions in terms of the context.
- Math Practice 5
 - The student is asked to use compasses, protractors, straight-edges, patty paper, and formulas/theorems as tools to solve problems.
- Math Practice 6
 - Students must attend to precision by communicating their reasoning precisely and effectively, using correct and appropriate mathematical vocabulary. Students use measurement on figures and are asked to adhere to a certain degree of precision (tenths, hundredths, etc.).
- Math Practice 7
 - Students have multiple structures available to them for larger tasks. They use the individual parts to guide their process as they make sense of the mathematics. They use solid figures, tables and various diagrams to make connections across ideas.
- Math Practice 8
 - Students are asked to complete tables and examine patterns and make generalizations from those patterns.

Materials show aspects of rigor.

Statements of appraisal and supporting evidence:

- Equations are derived before using.
 - e.g. equation for a circle, equation for a parabola given a directrix and/or focus
- Theorems are derived before using.
 - e.g. triangle congruence theorems, triangle similarity theorems, trigonometric ratios, angle bisector/proportional side theorem, Pythagorean Theorem, etc.
- Formulas are derived before using.
 - e.g. volume of 3-D shapes, surface area of 3-D shapes, areas or arc length of sectors, radians and degrees, conditional probability, compound probability, etc.

- Students routinely engage in activities that are real world applications that maintain a blend of deepening conceptual knowledge and attention to procedural fluency. Students must pay attention to a variety of representations of contexts that are aimed at building conceptual fluency but double as opportunities for students to practice procedural skills.
- Each module is composed of tasks that range from entry level to advanced difficulty. They range from application type tasks to building procedural fluency to developing conceptual understanding.
- The materials show a balance of conceptual understanding, procedural fluency, and application of their mathematical knowledge. Each lesson within a module builds conceptually with opportunities to practice the procedures and mechanics of the math.

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

Reviewer #61 78%	Reviewer #62 86%	Reviewer #63 93%	Average Score 85.7%
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Materials are consistent with grade level content, supporting the intent of the delivery and understanding of mathematics.
<p><i>Statements of appraisal and supporting evidence:</i></p> <ul style="list-style-type: none"> ● Students spend the entire course in the mathematics in the major clusters of the standards for Geometry. Very little time is spent on prerequisite or additional content. ● The material uses grade level academic language consistent with Common Core. ● The material spends the majority of time focusing on the major content for Geometry. The material focuses on delivering material so that students have opportunities to collaborate and explore mathematics on a conceptual level. ● Material provides prior knowledge that was expected and where the lesson was heading, allowing students to see the progression and final results expected.
Materials support student learning of mathematics.
<p><i>Statements of appraisal and supporting evidence:</i></p> <ul style="list-style-type: none"> ● The modules and supporting lessons within the materials are consistent with grade level content and do not deter from Geometry Common Core Standards. ● The modules were aligned in a sequential order that made sense and followed a progression building on previous knowledge. ● Students have opportunities to engage in mathematics by activating prior knowledge as an entry point into a task.

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 #61 85%	Reviewer #62 88%	Reviewer #63 88%	Average Score 86.9%
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Materials are coherent and consistent with the high school standards which all students should study in order to be college and career ready.

Statements of appraisal and supporting evidence:

- Material is structured in a way so that students have entry points into tasks and multiple ways to advance their knowledge from that entry point.
- The material uses appropriate terminology and vocabulary that is suitable for the content of the grade level.
- Problems are engaging for high school level students and contexts are not contrived.
- Each module builds off of the previous module and/or prior knowledge.
- Many lessons refer to the previous or future lessons.
- Lessons had numerous examples and exercises to be able to assess the students' progress.

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

Statements of appraisal and supporting evidence:

- Suggested pacing is based off of a 50 minute period.
- Bell work/ Warmup is provided at the beginning of each lesson.
- The coherence of the curriculum lends itself to students learning at an appropriate progression.

Materials support teacher planning, learning, and understanding of the standards.

Statements of appraisal and supporting evidence:

- The Teacher Implementation Guide offers facilitation notes, "As students work, look for", questions to ask, and differentiation strategies at the beginning of each activity.
- The module overview and subsequent topic overview describes the mathematics that are being developed within the module and topics.
- The curriculum does not provide opportunities for teachers to engage in a deeper study of the mathematics behind the standards.

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

Statements of appraisal and supporting evidence:

- MATHia software tracks student progress through each module.
- Lessons contain a formative assessment routine where students demonstrate an understanding of the material for the lesson and informs decisions that teachers can make to address gaps in understanding.
- Lessons contain a Performance Task with student rubric.

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

Statements of appraisal and supporting evidence:

- Lessons tend to lend themselves to multiple representations of key concepts (tables, diagrams, 2-D and 3-D figures, charts, graphs, equations).
- The implementation guides provide strategies to differentiate and scaffold for students who are struggling and who are accelerating.

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:

- Technology is recommended when creating regression models.
- Software is supported on Windows, Apple, and Chromebooks.
- Software is NOT recommended for smartphones.
- Teachers have access to a variety of reports on how students are progressing towards mastery of procedural skills through the MATHia software.

Materials can be easily customized for individual learners.

Statements of appraisal and supporting evidence:

- MATHia software provides 1-to-1 adaptive practice.
- Teacher materials offer differentiation strategies for struggling learners.
- Assignments at the end of lessons provide “stretch” problems for advanced learners.

Materials take into account cultural perspectives.

Statements of appraisal and supporting evidence:

- There is little evidence of cultural or language perspectives. Most examples and problems use activities that are familiar with students from New Mexico (i.e. magic show, skiing, and foods) but the cultural aspect is not specifically addressed. With the population of New Mexico being primarily Hispanic and Native-American, the team expected more examples. They were not clearly evident on cultural errors or literacy issues.
- There is no evidence of bias within the curriculum.

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 #61 background and experience: I have 10 years of experience in education in New Mexico. I am a current content specialist for high school mathematics. I have previously taught high school mathematics and supported middle school mathematics teachers. I have taught students of all levels, from Algebra 1 Intervention to AP Calculus. I am a level 3 teacher with a Master’s degree. Additionally, I have worked with the NMPED in using the Making Sense of Student Work Protocol and revising the NM End of Course exams for mathematics.

Professional summary of material:

I found this material to be an engaging and thorough resource for students. I could envision using this with my students and seeing profound success as they make connections across mathematical topics. The consistency with the routines and structures of the material may seem tedious or boring but is so valuable for students and only contributes to their success. A potential snag is that the curriculum assumes that students have the prerequisite knowledge to be successful. Provided that teachers can identify and adequately address those gaps, the material has strong potential. At the same time, the curriculum does a good job of providing tasks that have multiple entry points, so perhaps those prerequisite skills are not as important as traditionally perceived. The online companion is a great resource for students to use to practice procedural skills to build off of the conceptual understanding that they develop in the classroom setting. I would recommend this material with very limited reservations.

Reviewer #62 background and experience: I have been a mathematics teacher in New Mexico for 17 years. I was in the public sector for 8 years and now in the private sector for 9 years. I have been on the NMPED textbook adoption committee for mathematics two previous times and this is my third iteration. I have taught mathematics subjects from pre-Algebra to Pre-Calculus along with middle school credit recovery during summer school. I have been on the PARCC review committee on two occasions.

Professional summary of material: Of all of the High School Carnegie Learning series, this is the best as far as scope and sequencing. The levels of rigor are evident with the selection of the problems and the activities are spot-on for learning Geometry. This textbook still lacks the cultural and linguistic portion for New Mexico, but that is the only shortcoming I found with the curriculum. It was well thought out and covered all standards and aspects of Geometry.

Reviewer #63 background and experience: I have been teaching in New Mexico for 15 years. These have all been at the high school level with experience in Algebra 1, Geometry, Algebra 2 and Trig. I am a Level 3 teacher with a Master's degree in teaching from NMSU. I have worked previously with PED on end of course exams, textbook adoption, and SBA anchor pulling/ item analysis. I was also previously a member of the NM Educator Leader Cadre which participated in the PARCC rollout conference in Chicago, IL.

Professional summary of material: This material provides the teacher with tools to deliver the Common Core State Standards at grade level expectations. There is not much (if any) time spent on remedial or review standards from middle school as the student is expected to arrive to this class at a proficient middle grades and Algebra I level. This material uses the language of Common Core throughout each module. The material is heavy on conceptual understanding and the meaning and justification behind why the math works and makes sense. This resource spends a considerable amount of time deriving formulas and proving theorems before applying those formulas to solve problems. The teacher would need to decide how much time they want to spend explaining why formulas work and make sense vs. how much time learning when and how to apply those formulas. The material also allows for the student to use a compass and straightedge to construct geometric figures and shows worked out examples of those constructions. If I were looking to prepare my students for Geometry success through the lens of Common Core readiness, this would be a material I would advocate for to deliver my instruction. Additionally, this is not a resource that the teacher can simply open to page 1 at the beginning of class and start teaching without any planning beforehand. There is intentional design to this book that requires intentional planning and thought out lesson delivery with pre-planned questions and differentiation moves. I feel that there would need to be dedicated planning time throughout each activity to implement the resource as intended.

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Text Title	High School Math Solution Algebra II	Publisher	Carnegie Learning
SE ISBN	9781934239902	TE ISBN	9781934239926
SW ISBN	9780000068588 (ISBN 9781609728588)	Grade Level/Content	Grade 9-12

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 Recommended with Reservations Not Recommended

Total Score

Reviewer #61	Reviewer #62	Reviewer #63	Average Score
94.3%	92.3%	92.7%	93.11%

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

Reviewer #61	Reviewer #62	Reviewer #63	Average Score
99%	100%	95.1%	98.06%

Materials align with grade level standards.
<p><i>Statements of appraisal and supporting evidence:</i></p> <ul style="list-style-type: none"> ● The majority of time that students spend in the mathematics is in the major clusters of the standards for Algebra 2. ● All of the math standards for the grade level are evident and listed. <ul style="list-style-type: none"> ○ The vast majority of the 51 standards for Algebra 2 are addressed, and almost always to the depth intended by the standard. ● The language of the material reflects the language of the standards. <ul style="list-style-type: none"> ○ The material uses appropriate terminology and vocabulary that is suitable for the content of the grade level. Sample terms used: Average rate of change, closed under an operation, confidence interval, extraneous solution, extrema, series, multiplicity, etc.

- A few select standards in Algebra 1 are meant to be partially addressed in Algebra 1 and partially addressed in Algebra 2. The materials continue with the components of standards that were not addressed in Algebra 1. For example:
 - Finding zeros of quadratics to extend to complex numbers
 - Extend graphing functions to logarithmic and trigonometric functions

Materials align to standards for mathematical practice.

Statements of appraisal and supporting evidence:

- Math Practice 1
 - Students make sense of problems when they connect different representations, such as examining different types and data in different contexts, and then deciding how to best represent the data (bell curves, 2-way frequency table, etc.). Students continue to make sense when they compare the two representations and the corresponding inputs. Students persevere when they provide justifications for their responses.
- Math Practice 2
 - Students are often given multiple representations and asked to make connections between the representations. They use the connections to make conclusions and they use the context of the problems to help inform the mathematics.
- Math Practice 3
 - Students use the strategy of Thumbs up/Thumbs down to compare work samples and make arguments about which solution/approach is correct.
 - For example, a worked out solution is shown for two students. One student is correct but the other is not. It is up to the learner to critique the reasoning of each student to determine which work is correct and construct a viable argument as to why.
- Math Practice 4
 - Students are given a real life situation and asked to model the context with mathematics. They must take information and extract only the important components and disregard what is inconsequential. Further, they are asked to judge the reasonableness of their solutions in terms of the context.
- Math Practice 5
 - The student is asked to use computer software, graphing calculator, area models, formulas, etc. when appropriate.
- Math Practice 6
 - Students must attend to precision by communicating their reasoning precisely and effectively, using correct and appropriate mathematical vocabulary, also paying special attention to units and the accuracy of their numerical responses.
- Math Practice 7
 - Students have multiple structures available to them for the larger task. They use the individual parts to guide their process as they make sense of the mathematics. They use graphs and algebra to make sense of the solution and combine those solutions to make connections.
- Math Practice 8
 - Students look for a variety of patterns throughout the course, and make use of the regularity of those patterns to make generalizations. For example, examining the unit circle and making connections between the degree measure and the arc length of a sector along a circle of radius 1 (radians).

Materials show aspects of rigor.

Statements of appraisal and supporting evidence:

- The materials provide a balance of conceptual understanding, procedural fluency, and application of the standards to problem solving situations and contexts.
 - Getting Started, Activities, Talk the Talk, Graphic Organizers, Assignment (Write, Remember, Practice, Stretch, Review)
- Students routinely engage in activities that are real world applications that maintain a blend of deepening conceptual knowledge and attention to procedural fluency. Students must pay attention to a variety of representations of contexts that are aimed at building conceptual fluency but double as opportunities for students to practice procedural skills.
- Each module is composed of tasks that range from entry level to advanced difficulty. They range from application type tasks to building procedural fluency to developing conceptual understanding.
- The materials show a balance of conceptual understanding, procedural fluency, and application of their mathematical knowledge. Each lesson within a module builds conceptually with opportunities to practice the procedures and mechanics of the math.

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

Reviewer #61	Reviewer #62	Reviewer #63	Average Score
78.6%	82.1%	100%	85.7%

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

Statements of appraisal and supporting evidence:

- Students spend the entire course studying mathematics in the content standards for Algebra 2.
- The material uses grade level academic language that is consistent with common core standards for algebra 2.
- Teacher material focuses specifically on structures for students to collaborate and explain their reasoning so that they can make sense of the mathematics on a conceptual level.
- Material provides teachers and students with insight on the mathematics that new knowledge will be built off of.

Materials support student learning of mathematics.

Statements of appraisal and supporting evidence:

- Students are asked to explain their reasoning, explain how they know, show all of their work, and explain their thinking in every activity.
- Modules are aligned in a sequential order that makes sense and follows a progression that allows learning to develop over time and deepening of understanding.
- Students have opportunities to activate prior knowledge in every lesson and are given tasks that have a variety of entry points and solution strategies.
- Students are encouraged early and often to make connections between different representations and approaches.

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 #61 85%	Reviewer #62 87.5%	Reviewer #63 85%	Average Score 85.6%
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Materials are coherent and consistent with the high school standards which all students should study in order to be college and career ready.

Statements of appraisal and supporting evidence:

- The materials use the language and notations of mathematics that students would expect to see post algebra 2, whether it would be pre-calculus, college math, or in the workplace.
- Material is structured in a way so that students have entry points into tasks and multiple ways to advance their knowledge from that entry point.
- The material uses appropriate terminology and vocabulary that is suitable for the content of the grade level.
- Problems are engaging for high school level students and contexts are not contrived.
- Each module builds off of the previous module and/or prior knowledge.
- Many lessons refer to the previous or future lessons.
- Lessons had numerous examples and exercises to be able to assess the students' progress.

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

Statements of appraisal and supporting evidence:

- The lesson structure is designed for a 50 minute class period.
- The lessons follow the same structure throughout the book.
 - Getting Started, Activity, Talk the Talk, Graphic Organizer (when it lends itself to the activity), Assignment
- The coherence of the curriculum lends itself to students learning at an appropriate progression.

Materials support teacher planning, learning, and understanding of the standards.

Statements of appraisal and supporting evidence:

- The Teacher Implementation Guide provides support for the teacher with pacing guides and module overviews.
- The Teacher Implementation Guide provides Algebra 2 Standards Overview that maps the Common Core Standards to each Module/ Topic/ Lesson.
- The module overview and subsequent topic overview describes the mathematics that are being developed within the module and topics.
- The curriculum does not provide opportunities for teachers to engage in a deeper study of the mathematics behind the standards.

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

Statements of appraisal and supporting evidence:

- Online software provides feedback to the teacher on student mastery of standards.
- Lessons contain a formative assessment routine where students demonstrate their understanding of the material for the lesson and informs decisions that teachers can make to address gaps in understanding.
- Materials contain Performance Tasks with student rubric.

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

Statements of appraisal and supporting evidence:

- Lessons tend to lend themselves to multiple representations of key concepts (table, equation, graph, etc.).
- The implementation guides provide strategies to differentiate and scaffold for students who are struggling and who are accelerating.

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:

- Digital materials are accessible from Windows, Apple, and Chromebooks but are not compatible with smartphones or iPad below level 3.
- Technology is required when creating regression models.

Materials can be easily customized for individual learners.

Statements of appraisal and supporting evidence:

- MATHia software provides 1-to-1 adaptive practice.
- Teacher materials offer differentiation strategies for struggling learners.
- Assignments at the end of lessons provide “stretch” problems for advanced learners.

Materials take into account cultural perspectives.

Statements of appraisal and supporting evidence:

- There is little evidence of cultural or language perspectives. Most examples and problems use activities that are familiar with students from New Mexico (i.e. magic show, skiing, and foods) but the cultural aspect is not specifically addressed. With the population of New Mexico being primarily Hispanic and Native-American, the team expected more examples. They were not clearly evident on cultural errors or literacy issues.
- There is no evidence of bias within the curriculum.

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 #61 background and experience: I have 10 years of experience in education in New Mexico. I am a current content specialist for high school mathematics. I have previously taught high school mathematics and supported middle school mathematics teachers. I have taught students of all levels, from Algebra 1 Intervention to AP Calculus. I am a level 3 teacher with a Master’s degree. Additionally, I have worked with the NMPED in using the Making Sense of Student Work Protocol and revising the NM End of Course exams for mathematics.

Professional summary of material:

I found this material to be an engaging and thorough resource for students. I could envision using this with my students and seeing profound success as they make connections across mathematical topics. The consistency with the routines and structures of the material may seem tedious or boring but is so valuable for students and only contributes to their success. A potential snag is that the curriculum assumes that students have the prerequisite knowledge to be successful. Provided that teachers can identify and adequately address those gaps, the material has strong potential. At the same time, the curriculum does a good job of providing tasks that have multiple entry points, so perhaps those prerequisite skills are not as important as traditionally perceived. The online companion is a great resource for students to use to practice procedural skills to build off of the conceptual understanding that they develop in the classroom setting. I would recommend this material with very limited reservations.

Reviewer #62 background and experience: I have been a mathematics teacher in New Mexico for 17 years. I was in the public sector for 8 years and now in the private sector for 9 years. I have been on the NMPED textbook adoption committee for mathematics two previous times and this is my third iteration. I have taught mathematics subjects from pre-Algebra to Pre-Calculus along with middle school credit recovery during summer school. I have been on the PARCC review committee on two occasions.

Professional summary of material:

This curriculum has high ratings from me for structure, sequence and examples. The Common Core Standards are intermixed with the lessons and covers them partially or completely with the Topics and Lessons. Entry level problems are provided; however, students are expected to have prior knowledge as indicated in the lessons. There are numerous problems that are basic to advanced, with an excellent review of the material covered at the end of each section. Technology assisted instruction is available in MATHia but that may be a problem with the availability of WIFI or computers. The program does not recommend using iPad versions below 3 and does not recommend smartphones. The book is cumbersome but designed so that students could write in the book (extra wide margins) and have pull-outs. I am not sure that the textbooks will survive the entire year with students having to bring them back and forth to class. Also, there was little reference to cultural or language within the text. Overall, I would recommend this textbook given there were more positive aspects than negative aspects to the curriculum.

Reviewer #63 background and experience: I have been teaching in New Mexico for 15 years. These have all been at the high school level with experience in Algebra 1, Geometry, Algebra 2 and Trig. I am a Level 3 teacher with a Master's degree in teaching from NMSU. I have worked previously with PED on end of course exams, textbook adoption, and SBA anchor pulling/ item analysis. I was also previously a member of the NM Educator Leader Cadre which participated in the PARCC rollout conference in Chicago, IL.

Professional summary of material: This material provides the teacher with tools to deliver the Common Core State Standards at the Algebra 2 expectations. This material uses the mathematical language and mathematical notations of Common Core throughout each module. The material is heavy on conceptual understanding and the meaning and justification behind why the math works and makes sense. The material also allows for the student to demonstrate understanding in multiple ways and to make connections between those methods. If I were looking to prepare my students for Algebra 2 success through the lens of Common Core readiness and prepare the student for post Algebra 2 studies, this would be a material I would advocate for to deliver my instruction. Additionally, this is not a resource that the teacher can simply open to page 1 at the beginning of class and start teaching without any planning beforehand. There is intentional design to this book that requires intentional planning and thought out lesson delivery with pre planned questions and differentiation moves.