

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 need 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	CCSS Algebra I: Online Student	Publisher	Agile Mind
SE ISBN	9781949175608	TE ISBN	9781949175592
SW ISBN	9781949175998	Grade Level/Content	Grade 8-10

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 X Not Recommended _____

Total Score

Reviewer #64	Reviewer #65	Reviewer #66	Average Score
<u>80.8%</u>	<u>84.4%</u>	<u>87.3%</u>	<u>84.2%</u>

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

Reviewer #64	Reviewer #65	Reviewer #66	Average Score
<u>90.5%</u>	<u>88.4%</u>	<u>93.9%</u>	<u>90.9%</u>

Materials align with grade level standards.
<p><i>Statements of appraisal and supporting evidence:</i></p> <p>The materials (SE/SW, TE and online resources) for Algebra I align with high school conceptual categories of content standards for Algebra, Number and Quantity, Functions, Statistics and Probability. Standards for Mathematical Practice (SMP) are also embedded in the course content and offer ways for students to engage with the material (interactively, individually, in groups or pairings with others, and in teacher student interactions). SMPs are meant to be ways for students to come to understand and do the math that is presented.</p> <p>One specific high school conceptual category, Modeling, appears in relation to other content standards in the aforementioned conceptual categories and is denoted with a star symbol (★) on individual standards or on a heading of a group of standards. It is denoted on 10 of the 69 standards which are comprised within 2 domains. Modeling standards also appear within SMP #4 Model with Mathematics.</p>

However, the Scope and Sequence and Standards Alignment within the materials did not note how many times SMP#4 was utilized. This material does not contain any of the content standards within the conceptual category of Geometry.

Content standards and SMPs are in taught in a range of applicable courses and interconnect across the conceptual categories. However, there are domains, clusters, and standards which should amount to a majority of the students' time. In this material, students spend the majority of their instructional time on major content standards in seeing structure in expressions (A-SSE), performing operations on polynomials (A-APR), creating equations that describe numbers or relationships (A-CED), reasoning with equations and inequalities (A-REI), interpreting functions (F-IF) and linear models(S-ID).

All the major content standards are the focus of the Algebra I materials that are taught over approximately 142 lessons. The topics and standards are also coherent and follow across/within the content and there are connections to previous and future content standards. The sequence of learning has students starting with algebraic concepts through investigations of variables, tables, and graphs of linear equations and inequalities, delving into their characteristics and how to model and solve them. They then move to exponential and quadratic models where they have opportunities to contrast and apply their earlier conceptual understanding through practice and real world application.

The Standards Alignment within the online resources show where each content standard appears within each topic. Topics are taught in blocks of instruction ranging from 1-11 blocks. Each block of instruction is expected to take 45 minutes with topics typically taking 1-2 week in their entirety. Overall there are 140-142 blocks of instruction not including assessment within these materials.

Materials align to standards for mathematical practice.

Statements of appraisal and supporting evidence:

The materials do cover 100% of the Standards for Mathematical Practice (SMP). Students are constructing multiple representations and writing expressions in different forms, reasoning abstractly and quantitatively solving linear equations and inequalities, working with quadratic and exponential functions algebraically, graphically, numerically, and through verbal and written constructed responses where they are expected to be precise in their explanations using key vocabulary, and they have multiple opportunities to solve real world problems through animations, simulations, performance tasks, and assessments whereby they made sense of the problem and checked for reasonableness of their answers.

SMP #3 was not as prevalent as evidenced in the citations. Few opportunities were found where students were asked to critique the reasoning of others, and of those found there was no structure or strategies found for the teachers to support this practice in the learning of students. Reviewers found 6 citations of SMP #3 altogether. SMP #4 is heavily emphasized. Modeling is a conceptual category in high school and students are representing multiple models in multiple ways.

Materials show aspects of rigor.

Statements of appraisal and supporting evidence:

There are aspects of rigor in these materials. Based on the criterion given, the reviewers all scored M, for meets, on each of the following: Conceptual Understanding, Procedural Skills, and Application. Balance of rigor was scored as a P, for partially meets, by all reviewers. As one reviewer states, "There is balance among particular topics and the domain of standards that are within them."

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

Reviewer #64	Reviewer #65	Reviewer #66	Average Score
<u>53.6%</u>	<u>60.7%</u>	<u>64.3%</u>	<u>59.5%</u>

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

Statements of appraisal and supporting evidence:

The publisher met the criteria in the materials support using and encouraging precise and accurate mathematics, academic language, terminology, and concrete or abstract representations (e.g. pictures, symbols, expressions, equations, graphics, and models) in grade appropriate math.

Reviewers also found the teacher materials provided insight into students' ways of thinking with respect to important mathematical concepts - especially anticipating a variety of student responses and cited the Topics-at-a Glance as a good resource for this information. This resource delineates goals and objectives, prerequisite skills, descriptions of blocks, resources, and suggested assignments as well as language supports and strategies for teaching students in special populations, which may help guide the teacher with misconceptions and gaps in learning.

The reviewers scored in between partially meets and meets ($\frac{2}{3}$ vs. $\frac{1}{3}$) within the criterion of Teacher materials contain supports that explain the role of the mathematical focus of each lesson within the specific grade-level and how it relates to the coherence of the mathematical learning progressions for kindergarten through grade twelve and this was because there was minimal if any references made to the mathematical progressions from earlier grades.

Materials support student learning of mathematics.

Statements of appraisal and supporting evidence:

All reviewers found the material does not meet as they did not contain strategies for informing parents or caregivers about the mathematics program and suggestions for how they can help support student progress and achievement.

The reviewers scored in between partially meets and meets ($\frac{2}{3}$ vs. $\frac{1}{3}$) within the criterion of "Materials provide strategies to elicit mathematical discourse among students". As one reviewer states, "Students will have to work together to complete the activity but the instructions don't give any teacher strategies for doing this. I would like to see more cooperative learning strategies built into the curriculum. I know how and when to use them but new teachers will struggle with this implementation."

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 #64	Reviewer #65	Reviewer #66	Average Score
<u>60.6%</u>	<u>78.1%</u>	<u>73.4%</u>	<u>70.7%</u>

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 partially met expectations as they were designed to allow students to spend the majority of their time on content for postsecondary endeavors because of the use of technology. No direct instruction is given for instruction to some of the use of technology (such as graphing calculators). Access to technology is a cause for concern as some districts are rural areas or students have a lack of access either in class or even after hours. Activity sheets offer some reinforcement and practice of related skills, but some students may need manipulatives in some of topics to elicit further understanding of concepts.

Materials partially met in allowing students to fully understand the standard because materials assume teacher skill level and do not take into account teacher pedagogy or practice from a novice to veteran teacher.

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

Statements of appraisal and supporting evidence:

In the Prepare Instruction section of Professional Support, the block description describes the overall skills in each block and flows from one block to the next. Teachers are provided with suggested assignments that appear in the sequence of when concepts are taught and the student activity sheet corresponds to the sequence of the lesson/block. Students are also given constructed response opportunities to explain their thinking. The visuals in the student activity book are very simple and laid out for students to complete, leaving more than enough room for students to explain and find their answers. Students can express their understanding with graphic and numeric representations and sometimes through interactive software. However, there is no evidence of how to score these responses to gauge a student's full understanding.

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

Statements of appraisal and supporting evidence:

Classroom strategies are incorporated in the delivery of instruction. Opportunities are presented in terms of framing questions and tips, language supports and under advice for special populations, but effective learning experiences may be dictated by teacher's own pedagogical development and skill.

The SE, TE, and online support are connected. Topic description has the progression of the content and connection with prior skills. In the scope and sequence in each topic, the standards that are addressed are listed. There are parts of the standard listed within the goals and objectives section. However, it does not clearly denote the standard in its proper nomenclature. One would have to go to standards alignment page or look it up. The online materials support the lesson, there are videos and interactive lessons to assist the lesson in the classroom, under the tab Professional Support. There is also a Glossary, but only in the online materials.

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

Statements of appraisal and supporting evidence:

Automatically scored questions can be chosen by the teacher to get quick feedback on student understanding. Also there are constructed response questions in the online materials section and students can complete ones chosen by the teacher, maybe even use as exit tickets.

All the reviewers found there were no suggestions on students monitoring their own progress and there weren't many opportunities for students to critique classmate's work. There was also very little evidence on students assessing themselves or one another. The rubrics within the student materials do not lend themselves to assisting students in assessing themselves or others.

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

Statements of appraisal and supporting evidence:

Within the TE, there are classroom strategies, language strategies, and questioning prompts to assist teachers. However, use of concrete materials or manipulatives may be needed to explore concepts further and that is not suggested in the advice for instruction. There is also a teacher corner embedded in the Deliver Instruction section of the online materials.

Support for ELL/other special populations instruction is given. However, instruction does not really distinguish which is special needs or Gifted. There some total physical response (TPR) activities with vocabulary words as well.

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:

Chromebooks, Macbooks, or iPads may be used, and any browser will work. There are interactive questions where students use tools on the computer to answer the questions, students can complete the answers and push the check button to see if they have the correct answer. Automatically scored questions are also included within each topic.

Materials can be easily customized for individual learners.

Statements of appraisal and supporting evidence:

Small groups can be created in online lessons. There are a lot of questions offered to differentiate instruction and teachers can give different problems to different groups of students. However, the materials are not really laid out well. There are 671 pages in the student workbook and 362 pages in the teacher advice for instruction book. The teacher book does not have pictures of the student workbook embedded in it. It is difficult to match pages in the student edition, teacher's edition and online materials.

Materials take into account cultural perspectives.

Statements of appraisal and supporting evidence:

Questions are diverse in that there are questions about widely known activities and sports that all can enjoy across the globe. However, there was an overwhelming consensus that the materials are lacking in ethnic sensitivity, culture, and diversity. It does not reflect the culture, language or lived experience of multi-cultural society.

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 #64 background and experience: 15 years as an instructional leader: teacher (special education and general education - all levels), site administrator, content and instructional coach as well as district curriculum and support resource.

Professional summary of material:

The materials are extremely cumbersome. There are a lot of good resources in the online platform, but they require a significant amount of familiarity. The TE/SE are not laid out well to be able to find things quickly. There should be an index or a Scope and Sequence with alignment to standards within the teacher materials readily accessible. Overall the review set is not very user friendly as materials assume teacher skill level and do not take into account teacher pedagogy or practice from a novice to veteran

teacher. Many of the features included between the printed and blended learning materials would be items that I would not concern myself with in the first years of implementation.

Reviewer #65 background and experience: 19 years teaching grades 5-12 and college

Professional summary of material:

The material has a good number of real world application problems and students are required to model the problems in varying ways. Most instruction would need to be supplemented with other materials to be able to meet the students' needs. This has good use of technology for students to interact with the materials, however for a new teacher it does not include much explanation of each lesson or strategies for instruction. The downfall of the material is the major use of technology. Technology does go down quite frequently and without the use of technology the lessons are not as vibrant. The material is not broken down well for students to be able to use structure to assist in deeper understanding.

Reviewer #66 background and experience: 20 years teaching 9-12

Professional summary of material:

The online student edition, teacher edition and student activity books are all connected. The internet has to be fully accessible for the lessons to be successful. Also, students who do not have any previous knowledge of graphing calculator usage will need to be introduced to the keys and steps to completing any technology use until they are familiar with the key sequences. The Student Activity Sheet (SAS) in the student book and the TE blocks were hard to distinguish where one block started and ended in the SAS.

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 need 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	CCSS Geometry	Publisher	Agile Mind
SE ISBN	9781949175622	TE ISBN	9781949175615
SW ISBN	9781950605033	Grade Level/Content	Grade 8-11

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 X Not Recommended _____

Total Score

Reviewer #53	Reviewer #54	Average Score
_____82.3%_____	_____82%_____	_____82.17%_____

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

Reviewer #53	Reviewer #54	Average Score
_____87.98%_____	_____87.08%_____	_____87.53%_____

Materials align with grade level standards.

Statements of appraisal and supporting evidence:

IM includes a standards alignment document showing in which topic each of the geometry standards is covered. In some cases, standards are addressed through multiple topics. The standards selected for each topic are addressed through the IM, though at times only through online presentation or only through SW problems. There are several instances of IM only partially addressing standards. For example, students use the ratio of sides of triangles to understand the definitions for trigonometric functions. IM relates this to the slope of a line on a coordinate plane but does not relate to similar triangles, as is called for in standards. Some construction standards are glossed over as they are simply shown on the online presentations but students do not actively take a role in creating these. In the standards on probability, students are tasked with creating and understanding two-way frequency tables but are not given any

opportunity to create these. In general, the material is focused on the high school geometry standards and does not spend time on remediation of lower-level skills.

Materials align to standards of mathematical practice.

Statements of appraisal and supporting evidence:

The material does not specifically state which math practices are evident in each lesson but there is a document provided showing which practices are present in each topic overall. There is evidence of every practice standard throughout the course. Two particular strengths are the use of tools and modelling with mathematics. Teachers are given a variety of options when asking students to engage in explorations or constructions. These include online tools, hands-on measurement manipulatives, patty paper, mirrors, etc. Students are given many opportunities to apply their mathematical understanding to create models that are visual, algebraic and numerical. This material also calls on students to discuss in strategies like whole-group, think-pair-share, turn-and-talk, etc. Oftentimes students are justifying their thinking or explaining with precise language.

Materials show aspects of rigor.

Statements of appraisal and supporting evidence:

IM develops conceptual understanding through ample use of online animations. Students are frequently asked to re-explain their understanding, whether verbally or in writing. Students have opportunities to practice procedural skills through reinforce questions, though at times these are limited in scope. Students apply their understanding better in some standards than in others. For example, basic geometric properties and constructions are limited explicitly to procedural practice whereas trigonometry and volume/area/surface area are applied to a variety of different contexts, which students are asked to interpret. Overall, there is evidence of all three aspects of rigor throughout the course, though at times procedural is lacking in relation to the others.

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

Reviewer #53
___75%___

Reviewer #54
___71.43%___

Average Score
___73.21%___

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

Statements of appraisal and supporting evidence:

TE provides list of lessons cross-referenced with standards, indicating the content is consistent with grade-level expectations. TE does not indicate which specific standards are covered through each lesson, rather lists all standards covered throughout the course of a topic. TE instead provides stated goals and objectives for each lesson which shows the development of skills throughout the unit and within the context of the course as a whole. TE provides notation for language tips and strategies for ELs, supporting the delivery of lesson material. Digital content drives the instruction of each lesson with teachers clicking through slides or students accessing slides in a 1:1 setting. These online slides are interactive at times and provide immediate feedback, when appropriate. Online material also provides opportunities for automatically scored practice problems and assessments. Teachers have access to results in real-time which can be used to guide next steps and offer redirection to students. TE contains many cues for incorporating discussion techniques, group work and other classroom strategies which can bolster

engagement with the curriculum. Some performance tasks and written response assessments are provided with answer keys and rubrics. At times these contain common misconceptions for students matched to incorrect answers to the task to aid teachers in targeting student understanding.

Materials support student learning of mathematics.

Statements of appraisal and supporting evidence:

SW is a series of questions that follow with online presentations. There is no or limited space or direction for students to take notes on important material, concepts or definitions. This will be left to teachers to recognize and supplement as needed. TE provides advice for instruction that explains how online material should be presented to class including guiding questions, language support, and classroom strategies. Online presentation page content varies between text, images, animations, interactive constructions, fill-in-the-blank puzzles, etc. These provide scaffolds and opportunities to further discussion. As teachers progress through online material, many answers are provided on the slides after discussions occur. The SW does include reinforce questions, the answers to which are never provided for the student. TE provides guided practice and more practice which are automatically scored and can serve as quick checks to gauge level of understanding of material.

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 #53	Reviewer #54	Average Score
___69.51%___	___71.34%___	___70.43%___

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 scope and sequence provided, as well as the topic overview for each lesson, indicate that topics are covered in a way so that students can be college and career ready. Scaffolded instruction is available for many of the topics to help deepen conceptual understanding, but free response items are included as well so as to allow students to work on their own mathematical communication. Guidance is provided for how the content is addressed across grade levels and the buildup of the standards through the curriculum in the topic overview for each topic.

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

Statements of appraisal and supporting evidence:

TE contains advice for instruction for every “block” or lesson. In the advice for instruction is the goal/objective of the lesson followed by materials needed. Each lesson begins with framing questions that open the class to discussion. The instructions then walk the teacher through each page, stating timing, questions, and key points to mention. When appropriate, the instructions will contain strategies for classroom interaction, language development and/or accommodations for EL and Special Education populations. Each lesson ends with further questions that can be used to wrap up discussion as well as suggested assigned problems from SW and/or online practice opportunities. These materials follow a logical lesson structure. The materials provide information on pacing as each “block” is structured for 45 minutes of instruction. For a school not using a 45 minute schedule, adjustments will need to be made by the teacher.

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

Materials support teacher planning, learning, and understanding of the standards.
<p><i>Statements of appraisal and supporting evidence:</i></p> <p>TE contains a standards alignment document that shows the progression of standards throughout the topics in the curriculum. TE also contains professional essays that can aide a teacher in developing their own understanding of best practices in a math classroom, strategies to improve outcomes for ELs, and methodology behind the way the curriculum approaches Geometry. There are also videos online modeling how to use the curriculum as designed. These things can all support a teacher in planning and understanding the design of the curriculum but not necessarily the standards.</p>
Materials offer teachers resources and tools to collect ongoing data about student progress on the standards.
<p><i>Statements of appraisal and supporting evidence:</i></p> <p>The online content includes guided practice and more practice assignments as well as automatically scored assessments. The results of these can be accessed in real-time by the teacher. This can help teachers monitor progress of students throughout a topic but these questions do not appear to identify specific standards alignment.</p>
Materials give all students extensive opportunities and support to explore key concepts.
<p><i>Statements of appraisal and supporting evidence:</i></p> <p>SW contains the same questions for every student but the online slides provide the scaffolding needed for all students to access the content. These scaffolds include visuals, further explanation, interactive activities, fill-in-the-blank puzzles and other examples with immediate feedback. TE contains cues on how to support EL and Special Education Students to ensure that these populations have equitable access to content. The online material does allow teachers to create different groups of students and assign these groups different problems from the online practice and assessment banks. Online material also contains a glossary which can be accessed and searched in both English and Spanish. The IM are lacking somewhat in extensions or challenges to keep students who grasp the content quickly fully engaged.</p>
Materials support effective use of technology to enhance student learning. Digital materials are accessible and available in multiple platforms.
<p><i>Statements of appraisal and supporting evidence:</i></p> <p>Online content is accessible on a variety of platforms. TE frequently calls for technology use in a 1:1 setting but does provide explanation on alternate ways to present material if this is not available. Online tools provide visuals and rich interactive exploration activities, which students benefit from more by directly manipulating but still enhance learning in a whole-group setting if necessary. The more practice and guided practice questions can enhance student learning by providing immediate feedback to students if the ability for 1:1 implementation is possible.</p>
Materials can be easily customized for individual learners.
<p><i>Statements of appraisal and supporting evidence:</i></p> <p>Teachers have the opportunity to create groups of students and to assign different problems to these groups. This can help support individualized learning at times. No suggestions are made for how cutting pages of lessons might affect the students' ability to understand the content however, so this does require quite a bit of forethought by the teacher if it is going to be utilized.</p>
Materials take into account cultural perspectives.
<p><i>Statements of appraisal and supporting evidence:</i></p> <p>Some guidance is provided in the delivery notes on how to scaffold the instruction for ELL students, but these are at a very surface level of spoken language and do not bring in cultural references. Most of the examples are of generic settings or a surface look at the places and situations being references. In some</p>

cases, obviously fictional settings are used to give context to the problems which doesn't give students a big reason to buy into the problems.

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 #53 background and experience: Teacher holds a level III license and has been teaching courses ranging from Algebra 1 - Precalculus for 8 years. Teacher is a professional development leader in school and district.

Professional summary of material:

The material provides ample opportunity to develop conceptual understanding in each topic. At times the procedural skills feel glossed over or lacking. Often the applications have strong context and/or require students to personalize their understanding of a concept. At times, the performance tasks are too guided or structured to be called applications. Overall there is evidence of building all three (procedural, conceptual and application) skill levels. In regards to standards, the material does seem to attend to most of the standards as written. There are a few weak areas in the standards and many instances where only one feature of the standard is addressed within a topic but another feature will re-emerge in later topics. This is not explicitly stated and, therefore, the teacher must look at the standards alignment and plan accordingly. The material provides ample direction for class interactions and group work, but the teacher will have to spend much time reading the advice for instruction in order to find ways to incorporate this. The online material offers opportunities for teachers to enhance whole-group instruction through animation pages. Teachers are also directed to have students work in a 1:1 setting which would allow for individualization of student learning, if the school/student have access to these materials. The student workbook is a series of pages with questions that accompany each online presentation. These are easy to maneuver and include Review and Reinforce questions which may pre-assess learning or serve as tools to measure the degree to which students understood the lesson. The teacher edition does provide some extra supports and cues for teacher such as ways to address language barriers in terms of vocabulary and student discourse, questions to further learning and guide class discussions, and sentence frames. At times the material explains that students should have prior understanding of a skill. The material does not suggest what to do if this is not the case for a group of students, rather assumes the students have mastered that content. Overall the material feels sufficient to guide delivery of Geometry content but will require much planning and exploration time on behalf of the teacher.

Reviewer #54 background and experience: National Board Certified Teacher with 8 years of teaching experience in courses ranging from Algebra 1 to PreCalculus and AP statistics in both regular education settings and co-teaching inclusion settings.

Professional summary of material:

Overall the IM seems to adequately cover most of the Geometry standards to a sufficient level. Most of the standards have good conceptual knowledge included and make an attempt to show how they might be applicable in the real world, albeit with varying results. There are a few standards that call for certain methodologies to be used that miss the mark or only come close to the way the standard is worded (i.e. deriving the equation of a circle is done via the distance formula, but does mention that the distance formula is derived from the Pythagorean Theorem earlier in the materials, so it comes close to deriving

via the Pythagorean Theorem without actually doing so). The shortcomings that it does have come mainly from two places: the lack of procedural fluency practice and the content delivery methodology (because it is online-based). It's not to say that there is no procedural practice included, only that for most standards what is there is swallowed by the building of conceptual understanding and application problems. When reviewing the lessons, it seems as if because there is so much conceptual understanding built in and a lot of questions and activities tied to it that the writers didn't include much procedural practice to keep total length of the material shorter and more condensed. The content delivery methodology presents as a shortcoming because of the insistence that students have 1 to 1 device capability to get the most out of a majority of the lessons. Also, as a reference tool, since much of the content is dynamic, there is not a good place for students to be able to go to in order to view example problems that are completed without having to navigate through a lot of screens. As an instructional guide for teachers, the IM does provide quite a bit of general context for the standards being covered in each lesson but isn't always explicit about which piece of which standard is being taught. It does provide some resources for the expansion of the math beyond what is provided for the students, but still would leave quite a few gaps for a teacher not as familiar with the content. Also, because of the way that clicking through the lessons is designed, teachers will need to plan to spend quite a bit of time going through it before teaching it to make sure they know where the lesson is going.

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	CCSS Algebra II: Online Student	Publisher	Agile Mind
SE ISBN	9781949175646	TE ISBN	9781949175639
SW ISBN	9781950605057	Grade Level/Content	Grade 8-12

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 #65	Reviewer #66	Average Score
<u>90%</u>	<u>90.17%</u>	<u>90.08%</u>

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

Reviewer #65	Reviewer #66	Average Score
<u>95.6%</u>	<u>95.88%</u>	<u>95.74%</u>

Materials align with grade level standards.
<p><i>Statements of appraisal and supporting evidence:</i></p> <p>The materials align with Algebra 2 Common Core State Standards. The title is complete, logical and consistent. Students are able to make meaningful connections among concepts in Algebra 2 and with other high school math courses.</p>
Materials align to standards for mathematical practice.
<p><i>Statements of appraisal and supporting evidence:</i></p> <p>The materials align with the standards for Mathematical Practice, although some are more prevalent than others. There was limited evidence for standard 3—Construct viable arguments and critique the reasoning of others. For example, the material states that students work with a partner with no instructions given as to what strategies to use. The material also provides limited evidence for standard 5—Use appropriate tools strategically. In algebra 2, students should become proficient in using their</p>

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

calculators. There was some usage but no instructions on what sequential buttons to push or steps to take to find the answers on the calculators.

Materials show aspects of rigor.

Statements of appraisal and supporting evidence:

Evidence of rigor is balanced throughout the majority of the materials. Numerous examples can be found of rigor in the 1st, 3rd and 4th quarters of the materials. However, in the 2nd quarter, rigor was less prevalent. In the first quarter one example: Students state the Fundamental Theorem of Algebra in their own words and apply by solving complex equations. Another example that can be found in the 2nd quarter: Students practice finding 3 unknowns in the interactive online problems. They apply this knowledge to a basic system of equations with 3 unknowns, and then apply it to a real world problem about balloon launching data. There are three examples of rigor in the 2nd quarter found in materials given by the publisher and found in materials by reviewers.

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

Reviewer #65	Reviewer #66	Average Score
<u>71.43%</u>	<u>67.86%</u>	<u>69.64%</u>

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

Statements of appraisal and supporting evidence:

The materials are consistent with Algebra 2 content. The lessons are structured by topics and divided into blocks. Each lesson is broken up into prepare instruction, goals and objectives, topics, and by blocks. Each block is meant to be about 45 minutes of instruction. Each block contains its own lesson plan, opening activities, lesson activities, delivering instruction. The student edition has student activity sheets used for student exploration of each standard. The assessment is located online under topic. Navigating to the online pre-created questions is easily accessible. The questions are automatically scored so students and teachers get immediate feedback. The table of contents is located on page iii in the student workbook, which lists all topics covered in algebra 2.

Materials support student learning of mathematics.

The deliver instruction section in the teacher's edition has a layout for instruction. Students begin their lesson with an online interactive anticipatory set of problems. When the online materials and student activity books are used simultaneously, students are able to check their work and get immediate feedback. At the end of each topic, students also have guided practice, reinforce questions for discussion, and more practice problems offered online if needed. Students can also complete their lesson in the student workbook with a pencil and receive feedback from the teacher. Automatically graded assessments are pre made and online which gives the teachers and students immediate feedback and results.

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 #65	Reviewer #66	Average Score
--------------	--------------	---------------

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

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 scope and sequence focuses on the content standards to prepare students for the next stage in their career and college. Occasional review questions at the end of each lesson include some middle school topics but not many to distract from the high school standards.

It is recommended that the scope and sequence reference sheet be included with all adopted materials given to districts.

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

Statements of appraisal and supporting evidence:

Materials are well designed and have effective lesson structure and pacing. Deliver instruction in the teacher edition has a layout for instruction. Student edition always begin with overview, exploration with some reinforcement problems embedded throughout the lesson, further questions for discussion, and suggested assignments. Lessons are taught to where it focuses on a content or built upon the previous ones learned.

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

Statements of appraisal and supporting evidence:

Materials are broken down by blocks to make it easy for teachers to plan lessons. Assisting teachers in learning and understanding the standards is not as strong. Instructional strategies, such as classroom strategy, support for ELL, are given throughout the lesson plan. However, specific strategies in assisting teachers and students in grouping strategies and specific activities to encourage integration of the math practices needs to be more specific. Students are given lots of opportunities for interactive problems, but limited teacher assistance. There is lack of instruction on the use of graphing calculators throughout the majority of the lessons. Unless students are allowed to bring the interactive tools to testing, they need instruction on utilization of graphing calculators which they are allowed as testing material.

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

Statements of appraisal and supporting evidence:

Materials offer tools to collect ongoing data on student progress. Questions are made so that teachers could ask the class to take a quick formative assessment of students' understanding. Most topics have extra practice called reinforce in each section, in addition to having more practice online that teachers can choose to use. A test generator is included in the online materials. Teachers can create a test based on standards or by unit if desired. The assessment questions can either be automatically scored or with a constructed response.

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

Statements of appraisal and supporting evidence:

Students have access to online interactive videos and assignments. Materials have guided practice questions that students can do online and receive immediate feedback. Most topics have more practice problems and guided questions. Some debriefing is listed in the teacher materials but no strategies for differentiating instruction are listed. Some assistance is offered in students understanding vocabulary in the materials but no firm guidance on what to do for ELL students.

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:

Materials support effective use of technology to enhance student learning. Students and teachers can access the online materials on any computer, laptop, iPad, Mac, and Chromebook with the latest versions. Any browser may be used to access online materials. Firefox Touch is not supported.

Materials can be easily customized for individual learners.

Statements of appraisal and supporting evidence:

Numerous questions are offered throughout the material to differentiate instruction. Teachers could give different problems to different groups of students according to their needs. Differentiated instruction is not laid out in the materials.

Materials take into account cultural perspectives.

Statements of appraisal and supporting evidence:

Evidence of materials taking into account cultural perspectives are not prevalent. A few examples of real world problems that involve different cultures are included, but not many. This title would be hard for students to connect with in some areas because it does not make a connection with their lives or even use names they might be familiar with. For example, students collected data on a tsunami. This event would not be relevant to them because tsunamis impact regions of the world in a number of places.

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 #65 background and experience: 19 year teaching grade 5-12 and college

Professional summary of material:

The materials over all are good. The online material is vibrant and fun to interact with. However, there is not a lot of support to assist teachers in instruction or even in the teacher's guide. To access the materials teachers would have to watch the online materials ahead of time. Lesson plans were outlined in the teacher guide but no access to material unless the teacher is online also.

Reviewer #66 background and experience: 20 years teaching grades 9-12

Professional summary of material:

When the TE, SE, and SW are all used together and the teacher is enthused about the lesson, the material can produce critical thinking in students. Interacting and participating in discussion questions will help the students acquire some social skills and advocate for themselves. The material met all the mathematical practices and all standards for algebra 2 had lessons.