2019 Instructional Material Summer Review Institute

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	Reveal Algebra I	Publisher	McGraw-Hill Education
SE ISBN	9780076960835	TE ISBN	9780076819058sw
SW ISBN	N/A	Grade Level/Content	Grades 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 ___X_____ Not Recommended _____

Total Score

Reviewer #52	Reviewer #53	Reviewer #54	Average Score
83.67%___	____86%___	___85.3%____	__85%___

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

Reviewer #52	Reviewer #53	Reviewer #54	Average Score
___87.01%____	___88.59%____	___88.61%____	__88.07%_____

Materials align with grade level standards.
Statements of appraisal and supporting evidence: IM targets the Algebra 1 standards without spending unnecessary time on standards from other grade levels. The TE clearly outlines which standards are addressed in each module and in each lesson. In most instances, the procedural and application skills that are practiced align with the standards identified. However, this curriculum frequently lacks in evaluating student conceptual understanding of standards. For example, it does not delve deeply into interpreting parts of expressions, treats proofs of systems being closed under mathematical operations as optional material, rather than as key knowledge, explaining why x intercepts of intersection points represent solutions, and does not address proving the difference in rates of change for linear and exponential functions. TE provides an overview look at which module each standard is addressed in (TE pp. xxxii-xxxvii.). Each lesson provides vertical alignment of

standards, showing previously covered standards, current addressed standards, and standards to be addressed in future lessons (TE pp 1a).
Materials align to standards for mathematical practice.
Statements of appraisal and supporting evidence: TE provides citation of math practice addressed throughout lessons, as appropriate. Throughout the course, all math practices are addressed and targeted, often in similar ways across the modules. For example, students are frequently guided through a multi-step problem solving process, aiding them in persevering in problem solving. Students are asked in each module to make generalizations and explain thinking about algebraic skills which requires repeated reasoning and the construction of viable arguments. Students are tasked with using math to model contextual problems in most lessons, which often requires them to attend to precision in regards to units and to practice numerical and algebraic reasoning as they assess if solutions are viable. Students are asked to use graphing calculators and online tools to solve equations and explore features of graphs. Problems are presented to students to allow them to find the error and critique the reasoning of others.
Materials show aspects of rigor.
Statements of appraisal and supporting evidence: TE provides citation of which aspect of rigor is being targeted for each lesson (conceptual understanding, fluency/procedural, application). TE cites all three levels of rigor in every module and across the standard domains, though at times this is not adequately supported with student practice and exploration. In many instances, the application level is hinted at with "real-world" scenarios, but the depth of the question being asked does not require application of knowledge for the standards selected in the lesson. For example, in a lesson in which the standard deals with explaining why rational exponents can be re-written as radicals using the properties of exponents, the application questions focus on word problems that call on students to evaluate an expression with a radical or rational exponent. SW provides opportunities to practice with procedural skills throughout modules. SW provides questions that require students to justify or explain their thinking, targeting conceptual understanding. SW provides real-world scenarios. SW provides limited questions with abstract algebraic reasoning, targeting application of concrete skills, though there is at least one of these questions in every module. Digital materials provide exploratory activities for certain lessons that allow students to gain a deeper conceptual understanding of these topics. The modules themselves have a balance of rigor, though certain lessons are lacking, as previously stated.

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

Reviewer #52	Reviewer #53	Reviewer #54	Average Score
___64.29%___	__82.14%_____	__67.86%_____	__71.43%____

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 provides vertical alignment among standards for each lesson, referencing to the intent of the lesson within the context of the course as a whole. TE provides common errors students may make during lessons, as appropriate. Digital content offers extra practice, extra examples, extensions, resources for remediation, and other tools to support the delivery of the algebra 1

curriculum. Tasks are provided with 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 organized and provides space for students to take notes. TE provides guiding questions for a variety of readiness levels as well as questions to move students toward productive struggle during multi-step tasks. Examples are scaffolded so as to provide a structure for students to be able to give logical reasons for each step in a process and support them in showing their arguments. The SW presents a 4 step problem solving process and the TE provides structures for group work, ways to encourage students that are struggling but still working productively, and questions to redirect students who seem to be stuck and/or giving up in the process. TE and digital content provide exit tickets and quick checks to gauge level of understanding of material. TE provides citation on math practices targeted throughout lessons, as appropriate. SW provides targeted tips for having students think or discuss certain aspects of the material being presented, promoting deeper understanding.

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 #52	Reviewer #53	Reviewer #54	Average Score
__78.75%____	___80%____	_80%____	__79.58%____

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: TE clearly outlines which Common Core Math Standards for Algebra 1 are addressed in each module and in each lesson. TE provides an overview look at every lesson and the standard that is being addressed. Each module is focused on key Algebra 1 concepts and does not focus on standards from prior grade levels. Each lesson provides vertical alignment of standards, showing previously covered standards, current addressed standards, and standards to be addressed in future lessons.
Materials are well designed and take into account effective lesson structure and pacing.
Statements of appraisal and supporting evidence: The SW is well-organized and not distracting. The SW offers opportunities for students to interact with their notes. Each lesson is broken into chunks of a Learn section followed by examples that directly apply to that section. Then this is followed by assignments that are sequenced and labeled to follow the examples provided in the lesson and transition from procedural practice to application and conceptual reasoning problems throughout the assignments. The TE identifies problems as having a depth of knowledge level of one, two, or three for the problems presented with each lesson for the teacher to use as guidance. Students are frequently asked to explain or justify their reasoning. The digital content contains a glossary, ample opportunities for extra examples, and slides to aid in lesson delivery, as well as other resources which teachers may find helpful in structuring a lesson. Materials flow logically from one concept to the next without unnecessary leaps or unclear ties between concepts being taught. Tips and advice are placed in the margins as additional notes of interest or helpful hints.
Materials support teacher planning, learning, and understanding of the standards.
Statements of appraisal and supporting evidence:

TE contains a list of all standards at the beginning of the book and restates the focus standards for each lesson at the beginning of the lessons. TE also contains a vertical alignment of the prerequisite standards, current standards, and future standards at the beginning of each lesson. TE contains a list of lessons cross-referenced with the standards addressed in each lesson and states the lesson goal and the skills students will be exploring and developing in user-friendly language. Each lesson provides guidance for pacing and annotation on ways to present the online content, as well as some guiding questions to ask during examples. TE states opportunities to enhance learning using the digital content in each lesson, as available. Extra examples with scaffolding questions and answers are provided for each example in the digital materials. Digital content contains a section entitled "The Why Behind The Math" that dives into what the standards should address and why. This deepens the educator's understanding of the standards. Further, this resource offers insight into misconceptions students may have, which may further an educator's understanding of the standard.
Materials offer teachers resources and tools to collect ongoing data about student progress on the standards.
Statements of appraisal and supporting evidence: SE provides quick check questions to gauge level of understanding of lesson content. Digital content contains pre-test, extra practice, performance tasks, and assessments that are automatically scored, where appropriate. Digital content also provides opportunities to produce reports sorted by standard. TE provides common errors students may make during lessons, as appropriate. SE provides a list of skills addressed in each module with space for students to assess their ability before and after the module. Exit Tickets provided for students to show knowledge gained during the lesson and alternative methods for using it in the classroom are provided.
Materials give all students extensive opportunities and support to explore key concepts.
Statements of appraisal and supporting evidence: TE provides questions to promote productive struggle in lessons where appropriate. TE provides questioning differentiated to readiness level (Below, on-level, advanced). Digital content provides language handbook to support EL and directives to include in class to support ELs in language acquisition. Digital content provides opportunities to extend learning beyond the scope of the lesson. Tip for working with students from different cultural backgrounds with respect to language or norms, like group work, are provided within the text.
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 supported on a variety of platforms and with a variety of web-browsers. Digital material offers opportunities to assign quick checks, practice, and assessments using technology. TE provides citations for digital content that may be included in each lesson. Option for teachers to create their own assessments using the platform is provided.
Materials can be easily customized for individual learners.
Statements of appraisal and supporting evidence: Digital content provides opportunity for teacher to add web-based resources. Digital content provides link to a free trial of individualized extra support resource students can access to build their background knowledge and identify areas of weakness. Adaptive lessons are included with some lessons that allow students to work at their own pace that will change to meet their specific needs for that content.
Materials take into account cultural perspectives.
Statements of appraisal and supporting evidence:

Digital content provides a language handbook for ELs to support language acquisition. Digital content provides optional cultural perspectives resource which encourages students to research cultures through the lens of mathematics. SE provides Math History Minute which calls on the historical context of the mathematics being addressed in the lesson. Much of the cultural perspectives are included as ancillary materials instead of being deeply embedded into the material.

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 #52 background and experience: Teacher holds a Level II license and has been teaching secondary mathematics for 7 years and has served as algebra 1 and remedial algebra 1 content leader for 6 years. Teacher also serves on district textbook adoption team, grading practices team, curriculum & instruction team, and EOC writing team.
Professional summary of material: The material provides students with opportunities to practice conceptual problems, procedural fluency, and to apply the skills they have learned. Most of the emphasis seems to be on procedural fluency, with a lot of the conceptual understanding and application skills coming from teacher questioning strategies and use of online materials. These online materials offer plenty of opportunities to scaffold the material for students at all levels (approaching level, on level, and beyond level), as well as for student populations that might require more remediation, language supports, etc. TE and SE match up nicely making moving between the two easy, especially as teachers try to support students. Teachers have access to diagnostic tools to check student understanding before, during, and after learning has occurred and can build custom assignments and receive data for individual students and for entire classes based on student performance on standards. Overall this curriculum covers most algebra 1 standards and SMPs well without getting bogged down in prior standards or what students should be working up to do in the future. I especially appreciate the various questioning strategies introduced and chances for the teacher to evaluate student misconceptions and work towards building mastery for all students.
Reviewer #53 background and experience: Teacher holds a level III license and has been teaching courses ranging from Algebra 1 – Pre-calculus for 8 years. Teacher is a professional development leader in school and district.
Professional summary of material: The material provides ample opportunity to practice with most procedural skills. At times the conceptual development and applications feel weak, but overall there is evidence of building all three (procedural, conceptual and application) skill levels. The material provides limited direction for class interactions/group work. The online material offers opportunities for teachers to enhance individual student learning, if the school/student have access to these materials. The student workbook is well organized and easy to maneuver. The teacher edition does provide some extra supports and cues for teachers, such as ways to encourage productive struggle, common errors students may make and how to address them, questioning at different readiness levels, exit tickets, pre-assessments, etc. Overall the material feels sufficient to guide delivery of Algebra 1 content.
Reviewer #54 background and experience: National Board Certified Teacher with 9 years of experience ranging from Algebra to Pre-Calculus and AP Statistics in both regular education settings and inclusion co-teaching classes. Teacher has provided professional development for teachers both within the district and at regional and national conferences.
Professional summary of material: The material is well laid out and relatively easy to follow the pacing and lessons with lots of chunking of the material, so breaking a lesson up or combining them if needed

should be relatively easy to do. The teacher materials provide some tips that will help with student comprehension and instruction, which veteran teachers will find useful as reminders of best practices, but newer teacher will find to be lacking in information. The mathematical practices can be found throughout the material, but much of it comes from the questioning that is embedded and less directly from rich open-ended tasks because there is a ton of scaffolds provided in the material. Procedural fluency is one of the aspects of rigor that is readily apparent in most lessons, with applications coming in heavily scaffolded scenarios. There are some great tools available in the digital materials that help with the conceptual understanding, but in most of the text I felt that it was overshadowed by the procedural aspects. Overall, the material covers the standards for Algebra 1 well, but teachers unfamiliar with the overall flow of the curriculum from one grade level to the next will find themselves searching in other places for context.

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Text Title	Reveal Geometry	Publisher	McGraw-Hill Education
SE ISBN	9780076960972	TE ISBN	9780076819973
SW ISBN	N/A	Grade Level/Content	Grades 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 ____X____ Not Recommended _____

Total Score

Reviewer #56	Reviewer #57	Reviewer #61	Average Score
___82.67%__	___86.17%__	____81.83%__	____83.56%__

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

Reviewer #56	Reviewer #57	Reviewer #61	Average Score
___83.82%__	___90.67%____	___85.49%____	___86.66%____

Materials align with grade level standards.
Statements of appraisal and supporting evidence: ● The language of the material reflects the language of the standards. ○ The material uses appropriate terminology and vocabulary that is suitable for the content of the grade level. ● A majority of the math standards for the grade level are evident and listed. ○ There are 54 standards for Geometry. Most of these are addressed, but not always to the depth and rigor intended by the standard. ■ Example: **HS.GRST.B.4** asks students to prove theorems about triangles. The rigor intended by the standard is for students to develop the proofs. However, the

material guides students along these proofs, rather than have students develop them using their own intuition.

- The majority of time is spent in the major clusters of the standards for Geometry.

Materials align to standards of mathematical practice.

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. Perseverance is not explicitly emphasized through the materials.
- Math Practice 2
  - Students are occasionally given multiple representations and should be expected 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 do not have adequate opportunities to construct their own arguments. Instead, the arguments are often asked to fill in the blanks in preconstructed proofs. Students are rarely asked to justify their reasoning or examine the work of others and provide critiques.
- Math Practice 4
  - Students are given real life situations and asked to model the context with mathematics. They must take information and extract only the important components and disregard what is inconsequential.
- Math Practice 5
  - Students are asked to use online construction tools, compasses, protractors, straight-edges, patty paper, and/or 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 must make use of structure in specific point within the materials. For example, on page 551, students must know about the ambiguous case within the Law of Sines, which is addressed in standard HS.GRST.D.11. The other instance is on page 88, where students must know what two dimensional structures to use within that section.
- Math Practice 8
  - The application problems within the SE and TE show a lot of the students having to go back and repeat a lot of the previous learning. For example, on pp. 249 and 250, the students must use the same reasoning of reflection within that section.

Materials show aspects of rigor.

Statements of appraisal and supporting evidence:

The conceptual understanding piece is almost always centered around the online explore activities. The student workbook does not often provide opportunities for students to develop conceptual understanding. For students of NM, this reliance on technology is a big concern, as many schools are not one to one or have available technology in every classroom. Students have opportunities throughout every lesson to attend to procedural skill. Unfortunately, the materials seem to rely too heavily on this attention. Students have opportunities to apply their mathematical understanding through problems posed in context, but these types of problems often provide too much guidance on how to solve the

problem. The materials funnel students towards a way of thinking, rather than allowing students to develop their own solution strategies.

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

Reviewer #56	Reviewer #57	Reviewer #61	Average Score
__64.29%___	____71.43%___	___57.14%___	___64.29%___

Materials are consistent with grade level content, supporting the intent of the delivery and understanding of mathematics.
Statements of appraisal and supporting evidence: The material aligns with grade level standards. However, the intent of the rigor of those standards is not aligned. The material falls short in areas where students should have opportunities to create their own arguments, engage in discourse, and explore mathematics by taking risks and persevering.
Materials support student learning of mathematics.
Statements of appraisal and supporting evidence: The materials support the student learning of mathematics to some degree. The material goes into great detail and step by step examples of how to solve different problems. Again, the material falls short in the fact that it does not give students the opportunity to form their own ideas and ways of learning mathematics that makes sense to them. The sequencing and flow of the text has a traditional geometry feel and one unit flows nicely into the next and so on, making the pacing of the text easy to follow.

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 #56	Reviewer #57	Reviewer #61	Average Score
____83.13%___	___83.75%___	__76.88%____	____81.25%___

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: While the standards are mainly addressed, they are not always appropriate for the rigor intended by the standard. The structure of the material greatly takes away from this rigor. Tasks feel very “closed” and seem to prescribe solution strategies for students, rather than having them make their own sense of the problems. The materials do have a flow to them that could potentially allow students to make connections from previous understandings to new content studies.
Materials are well designed and take into account effective lesson structure and pacing.
Statements of appraisal and supporting evidence: The materials do not provide guidance for pacing within a lesson. This leaves teachers to decide how much time to spend on each activity.
Materials support teacher planning, learning, and understanding of the standards.
Statements of appraisal and supporting evidence:

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

The pacing and the flow of the text is traditional for most Geometry textbooks. One unit flows into the next and so on. This design makes the pacing and sequence of the material easy to follow and plan for. There are a number of teacher resources provided by the publisher to aid in the planning of the material. Again, the understanding of the standards to their fullest is not addressed in many cases and requires the teacher to look outside the material for supplemental support. For example, regarding Standard HS.GGMD.A.1 (Give an informal argument for the formulas for the circumference of a circle, the area of a circle, the volume of a cylinder, pyramid, and cone. *Use dissection arguments, Cavalieri's principle, and informal limit arguments)*, the online and physical materials do not cover Cavalieri's principle or informal limit arguments at all.
Materials offer teachers resources and tools to collect ongoing data about student progress on the standards.
Statements of appraisal and supporting evidence: The online sections of the course do outline that data can be collected, but there is no follow through on the ongoing process or how that would look within the online materials. The tools presented are very good (ALEX, additional practice, videos), but it did not show that they could collect certain types of data or what kind of data that it would be collecting.
Materials give all students extensive opportunities and support to explore key concepts.
Statements of appraisal and supporting evidence: The online companion seems to be the main (only) source of opportunities for students to explore key concepts. As mentioned before, this does not serve all students as they may not all have equitable access to suitable technology to complete this exploration.
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: The materials provide an extensive online component to be utilized by both teachers and students. The digital materials can be accessed on a variety of platforms as well. However, the publisher relies too much on this component, when not all students have an equitable opportunity to use the tools made available to them.
Materials can be easily customized for individual learners.
Statements of appraisal and supporting evidence: As mentioned above, the online materials do have extensive opportunities for students to explore and watch videos on the material, but it is not customizable on the teacher end. There was nothing presented within the materials that suggests that teachers can assign extra specific assignments. Teachers can access all of the materials and guide students to where they may be struggling. However, without a solid system of data to look into, it is not as individualized as it can be.
Materials take into account cultural perspectives.
Statements of appraisal and supporting evidence: There is no evidence of any bias within the materials. However, the materials do not do an adequate job of providing specific strategies for including a variety of cultural perspectives.

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 #56 background and experience: I am a level 2 teacher and have been teaching for 4 years in the subjects of Algebras 1 and 2, Geometry, and the MATH 180 program. I am currently working on a

Masters in Curriculum and Instruction, and have a Bachelors in Secondary Education, emphasis in Mathematics.
Professional summary of material: This set of materials does a great job at covering the standards within the Geometry course. The issue that I have with the materials is that the online portion and the TE and SE books are one unit. This then leaves parts of standards in the online section and other parts of it covered in the physical materials. This can cause frustration in using the entire set of materials, and can lead to not fully covering the standards well. The other is with the aspects of rigor. The actual conceptual knowledge is very much lacking, and this does not set up a lot of the information well. The students get the rigor in the skills needed to solve the problems and the application of the materials, but they do not have a great foundation in learning the material beyond examples. The layout of the materials is very traditional and consistent, but it does not give a lot of rigor in setting up the knowledge of the course. Overall, this material presents many of the standards well, and the issues with it are listed above.
Reviewer #57 background and experience: I am a highly effective, level 3 mathematics teacher with fifteen years of experience teaching Algebra 1 to Precalculus in the state of New Mexico. I am also an AP certified teacher as well as a teacher mentor and department head at my school. I hold a Master's Degree in Education Administration and a Bachelor's Degree in Agricultural Extension and Education with an emphasis in Mathematics and Science.
Professional summary of material: The publisher does a good job of making sure that almost every Common Core State Standard is met throughout each component of the book. What may be missing in the student edition is covered within the online component and so on. While the standards are covered, the publisher does not always go into the depth necessarily put forth by the language of the standard. The student and teacher editions seem to be incomplete without the online component, which could be an issue for some schools in the state of New Mexico and the lack of ample technology at each site. The balance and rigor that many math teachers throughout the state are looking for in a text book seems to be lacking in this particular one. As stated above, the conceptual understanding is addressed mostly in the online component and the application piece in many instances is missing. Some of the practice problems at the end of each section are labeled as such. However, when you look at the actual problem, it is a DOK 1 type question which does not encourage students to come up with their own way of thinking through a problem. The material covers all the areas of high school geometry, but not to the rigor and balance most mathematics teachers would like to see.
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 masters degree in teaching. 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 high school mathematics courses.
Professional summary of material: While this material checks many of the boxes, I have several concerns about it. It addresses the standards, but not always to the depth intended by the standards set forth by CCSS-M. The development of conceptual understanding is entirely reliant on the student and teacher being able to effectively navigate the online component of the material. For New Mexico especially, it is concerning that the material is so dependent upon access to reliable technology in the classroom. Without the online component, this is basically a structured set of notes where students are not utilizing their own intuition about the content. Rather, students are "filling in the blanks". The student workbook is also very text heavy in places and that can be rather intimidating for students. The facilitation notes leave much to be

desired in comparison to other materials. An experienced teacher might be able to take these materials and make them engaging and attentive to conceptual understanding, but a new teacher would have difficulty making facilitation moves that drive student learning. In short, while this material may “check the boxes”, it falls flat in the end and should not be adopted.

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Text Title	Reveal Algebra 2	Publisher	McGraw-Hill Education
SE ISBN	9780076961764	TE ISBN	9780076820139
SW ISBN	N/A	Grade Level/Content	Grades 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 ____X____ Not Recommended _____

Total Score

Reviewer #52	Reviewer #53	Reviewer #54	Average Score
__84.50%_____	___86%____	___81.60%____	___84.06%____

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

Reviewer #52	Reviewer #53	Reviewer #54	Average Score
____86.78%___	___90.82%____	__90.44%_____	___89.35%____

Materials align with grade level standards.
Statements of appraisal and supporting evidence: IM targets the Algebra 2 standards without spending unnecessary time on standards from other grade levels. The TE clearly outlines which standards are addressed in each module and in each lesson. Each lesson provides vertical alignment of standards, showing previously covered standards, current addressed standards, and standards to be addressed in future lessons (TE pp 1a). In most instances, the procedural and application skills that are practiced align with the standards identified. At times, the level and balance of rigor does not match the standard. For example, this curriculum leads students through solving a variety of equation types but does not require students to apply their conceptual knowledge of extraneous solutions to create examples; rather, it has students identify them when they arise. Further, when addressing transformations of functions, students are led to describe transformations but do not have many opportunities to experiment with transformations using technology, as is called for in the

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

standards. Conceptual understanding is not adequately addressed in standards relating to the unit circle, nor in proofs of the Pythagorean Identity. Standards on probability and statistics are heavy on using the probabilities to interpret statistics, but actually calculating probabilities is not included in the material. Also, simulations are talked about a great deal but almost no instruction is provided on how to actually include them.
Materials align to standards for mathematical practice.
Statements of appraisal and supporting evidence: TE provides citation of math practice addressed throughout lessons, as appropriate. Throughout the course, all math practices are addressed and targeted, often in similar ways across the modules. For example, students are frequently guided through a multi-step problem solving process, aiding them in persevering in problem solving. Students are asked in each module to make generalizations and explain thinking about algebraic skills, which requires repeated reasoning and the construction of viable arguments. Students are tasked with using math to model contextual problems in most lessons, which may require them to attend to precision in regards to explanations and to practice numerical and algebraic reasoning as they assess if solutions are viable. Students are asked to use graphing calculators and online tools to solve equations and create graphs. Problems are presented to students to allow them to find the error and critique the reasoning of others.
Materials show aspects of rigor.
Statements of appraisal and supporting evidence: Conceptual understanding, procedural skill, and application can all be found represented in a number of different standards in the four quarters of the IM. Balance between the standards is not as consistently found throughout standards within the material. Of the three aspects of rigor, procedural skill is the one that is addressed the most consistently across standards and can be found in almost every standard cluster. Conceptual understanding is most often addressed well in the online materials and extension activities found there. Application problems are included in every lesson, but most are very closed-ended problems that do not require students to stretch themselves to apply the concept to the problem.

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

Reviewer #52	Reviewer #53	Reviewer #54	Average Score
60.71%	64.29%	50%	58.33%

Materials are consistent with grade level content, supporting the intent of the delivery and understanding of mathematics.
Statements of appraisal and supporting evidence: IM contain academic language and terminology that is at an appropriate level for high school. Lessons are formatted so that each piece of new information is accompanied by several examples that tie to it. Practice problems are also tied to specific examples from the instruction for student reference. Conceptual understanding is developed within extension lessons in the online platform. Many procedural skill problems are included with each lesson. Some application problems are included with each lesson, but are structured in such a way that they mirror very closely the example problems. Module Review pages are included at the end of each module as well as Test Practice pages.
Materials support student learning of mathematics.
Statements of appraisal and supporting evidence:

IM provides written instruction at a level that is appropriate for high school students and examples that are scaffolded to help support students who are not quite at grade level. Four Step Plan examples are provided in many lessons to help students format their solutions in a logical manner. Key concepts are laid out for students to self-evaluate at the beginning and end of each lesson, but connections to future or past knowledge are not made. Common misconceptions are made available in the TE, but don't tie specifically to individual problems. Formative Assessment Math Probes are provided at the beginning of each module that can help the teacher identify student misconceptions individually. SW is organized and provides space for students to take notes. TE provides guiding questions for a variety of readiness levels, as well as questions to move students toward productive struggle during multi-step tasks. TE and digital content provide exit tickets and 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 #52	Reviewer #53	Reviewer #54	Average Score
___82.50%____	___77.50%____	__64.38%_____	__74.79%_____

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: TE clearly outlines which Common Core Math Standards for Algebra 2 are addressed in each module and in each lesson. TE provides an overview look at every lesson and the standard that is being addressed. Each module is focused on key Algebra 2 concepts and does not focus on standards from prior grade-levels. Each lesson provides vertical alignment of standards, showing previously covered standards, current addressed standards, and standards to be addressed in future lessons.
Materials are well designed and take into account effective lesson structure and pacing.
Statements of appraisal and supporting evidence: IM are formatted so that they have a clear structure of Explore, Learn, Example, and Practice that is followed for every lesson. SW has room in the margins for note-taking by students with Study Tips, Math History Minute, Think About It, Talk About It, and things to Watch Out for included to give some direction for the students. Materials take a minimalist approach to graphics and don't have a lot of extraneous pictures to distract students. There are a lot of problems provided for practice, especially with regards to procedural skill, but most are closed-ended questions that don't give a lot of variety for students to show their understanding in a lot of different ways. The TE identifies problems as having a depth of knowledge level of one, two, or three for the problems presented with each lesson for the teacher to use as guidance. The digital content contains a glossary, ample opportunities for extra examples, and slides to aide in lesson delivery, as well as other resources that teachers may find helpful in structuring a lesson. Materials flow logically from one concept to the next without unnecessary leaps or unclear ties between concepts being taught.
Materials support teacher planning, learning, and understanding of the standards.
Statements of appraisal and supporting evidence: IM are formatted so that every module and lesson is structured in the same way with pacing guides, informal pre-assessments, vocabulary, and standards presented at the beginning of each module and lesson. The context of standards in the larger scope and sequence is provided on a micro scale where it

gives the standards that students have done, will do in this lesson, and where they will go in the future, but does not give the macro level look at standards outside the scope of the course. Tips and suggestions that are in the TE will be most useful for veteran teachers of the subject since many of them only parallel the material they are referencing instead of being directly tied to specific problems or examples. Higher level explanations of the material beyond what instruction is provided for the students are not included in the TE.
Materials offer teachers resources and tools to collect ongoing data about student progress on the standards.
Statements of appraisal and supporting evidence: SE provides quick check questions to gauge the level of understanding of lesson content. Digital content contains pre-test, extra practice, performance tasks, and assessments that are automatically scored, where appropriate. Digital content also provides opportunities to produce assessment reports sorted by standard. TE provides common errors students may make during lessons, as appropriate. SE provides a list of skills addressed in each module with space for students to assess their ability before and after the module. Digital exit tickets are provided for students to show knowledge gained during the lesson and alternative methods for using it in the classroom without technology are provided.
Materials give all students extensive opportunities and support to explore key concepts.
Statements of appraisal and supporting evidence: Lessons are broken into smaller learning chunks with examples for each piece of instruction. Prerequisite concepts are provided at the beginning of each lesson. Module Summary of important concepts is present at the end of every module. Questions are provided within the TE for students that are Approaching Level, On Level, and Beyond Level to help facilitate and differentiate instruction. TE also provides questions to promote productive struggle in lessons where appropriate. Digital content provides language handbook to support EL and directives to include in class to support ELs in language acquisition. Reteaching opportunities are provided in the TE for reaching EL students or Approaching Level students to make the material more accessible. Extension activities are available in the online materials that allow students to go beyond the scope of the standards.
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 supported on a variety of platforms and with a variety of web-browsers. Digital material offers opportunities to assign quick checks, practice, extra examples, and assessments using technology. TE provides citations for digital content that may be included in each lesson. Digital content provides the option for teachers to create their own assessments using the platform. It is not always clear what the objective of the digital assignments and tasks are without completing them first, even though they are aligned with standards and standards for mathematical practice.
Materials can be easily customized for individual learners.
Statements of appraisal and supporting evidence: Digital content provides opportunity for teachers to add online resources such as extra examples, extra practice, remedial practice, and extension activities directly from the curriculum resources. Teachers also have the opportunity to add their own online material but suggested sites for doing so are not provided. Digital content also provides a link to a free trial of individualized learning plan supporting students' areas of weakness. Some lessons include activities that can be paced by the students, allowing for advanced students to proceed ahead and struggling students to receive extra guidance.
Materials take into account cultural perspectives.
Statements of appraisal and supporting evidence:

Language Development Handbook is available as an online resource that gives tips for working with ELL students and students from multicultural backgrounds. Some tips on cultural perspectives and ELL modifications are made within the TE. Most examples and practice problems are set in generic locations with generic people, often with no people being actually named in the problems. Math History Minute side notes give some context to where or when a math concept was first developed, but are so brief that they don't give a lot of cultural perspective. Most questions are closed and do not allow for much interpretation or perspective taking arguments by the students. Much of the cultural perspectives are included as ancillary materials instead of being deeply embedded into the material.

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 #52 background and experience: Teacher holds a level II license and has been teaching secondary math for 7 years, Teacher is PLC leader and serves on various district committees in a leadership role related to curriculum work.
Professional summary of material: The material allows students to practice procedural skills with most standards but definitely misses opportunities to build conceptual understanding and to allow for student application of skills to higher-level situations. Many times students are simply told something and then the materials move on, which doesn't allow for discourse or for rigor to flow in the classroom. The online materials definitely assist with these issues, especially since many of the pieces are customizable to different students at different learning levels. Online resources for ELL students, those who are still approaching or on level, and students who just need some extra help are great and provide many different remediation formats. Student edition and teacher edition match up nicely, but SE can feel a bit cluttered at times. SE does have some great inquiry/guiding questions and places to answer these and take notes, but some of the problems are too guided and would do well to allow for more student engagement in the material by making them struggle through setting up equations, etc., more. TE does provide scaffolded questions, opportunities to differentiate, and extra support for teachers who might need more guidance on how to address common errors and misconceptions. The standards for mathematical practice are evident throughout the material and help teachers build connections between real-world applications and student work.
Reviewer #53 background and experience: Teacher holds a level III license and has been teaching courses ranging from Algebra 1 – Pre-calculus for 8 years. Teacher is a professional development leader in school and district.
Professional summary of material: The material provides opportunity to practice with most procedural skills. At times the conceptual development and applications feel weak, but overall there is evidence of building all three (procedural, conceptual and application) levels of rigor. To engage in the more rich conceptual and application skills, use of the online material is necessary. The material provides limited direction for class interactions/group work. The online material offers opportunities for teachers to enhance individual student learning, if the school/student have access to these materials. The student workbook is well organized and easy to maneuver. It provides opportunities for students to take notes and to interact with their notes. The teacher edition does provide some extra supports and cues for teachers, such as ways to encourage productive struggle, common errors students may make and how to address them, questioning at different readiness levels, exit tickets, pre-assessments, etc. In these ways the material does target the standards for math practices. Overall the material feels sufficient to guide delivery of Algebra 2 content.

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

Reviewer #54 background and experience: National Board Certified teacher that has 9 years of teaching experience teaching everything from Algebra 1 to Pre-Calculus and AP Statistics in both regular and co-teaching special education settings.
Professional summary of material: Overall the material covers the Algebra 2 standards and content that would prepare students to be successful in future math courses at the high school or college level, despite shortcomings when it comes to conceptual understanding and robust applications of the mathematics. Procedural fluency is very much present in the materials and students are given many different opportunities to practice from different starting points for each concept. The digital materials complement and enhance the written texts well, but many of the deeper conceptual tasks are only located within the digital resources. The TE does provide some strategies and tips for teachers, but would be most beneficial for veteran teachers who are already familiar with the content as they don't supply a lot of support for the understanding of the math beyond what is presented for the students. The overall flow of the standards from one grade to the next is also lacking in the materials, although the flow within the course itself is fairly well laid out.