

## Review Team Appraisal of Title

(K-8 Mathematics)

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

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

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

IM Title	Connected Mathematics 3 Algebra I	Publisher	Pearson Education
SE ISBN	9780328936250	TE ISBN	9780328964895
SW ISBN	N/A	Grade Level/Content	Grade 8

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

Recommended  Recommended with Reservations  Not Recommended

**Total Score**

Reviewer #43 ___ 97.17% ___	Reviewer #33 ___ 88.17% ___	Reviewer #77 ___ 94.50% ___	Average Score ___ 93.28% ___
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**Standards Review** - *Materials are reviewed for alignment with the state adopted content standards, benchmarks and performance standards.*

Reviewer #43 ___ 99.35% ___	Reviewer #33 ___ 89.18% ___	Reviewer #77 ___ 97.88% ___	Average Score ___ 95.14% ___
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Materials align with grade level standards.

*Statements of appraisal and supporting evidence:*

- Standards listed for the curriculum are aligned to the correct grade level.
- The material addresses the 8th grade major topics i.e. radicals, integer exponents, analyzing and solving linear equations, functions, and congruence and similarity.
- Material also addresses high school Algebra content standards in the *It's In the System* and *Say It with Symbols* units, for example, which explore systems of equations and inequalities and functions.
- The grade level concepts and skills are embedded within a context or problem centered on themes to meet multiple standards in one lesson.

- Students demonstrate their proficiency of the standards through multiple learning tasks and real-world application that requires higher-level thinking, reasoning, and problem solving.

Materials align to standards of mathematical practice.

*Statements of appraisal and supporting evidence:*

- In teacher and student editions, the activities specifically address Math Practices to enhance students' metacognition.
- Throughout the lessons in each unit, activities denote opportunities for students to use the practices to build on and connect to prior knowledge in order to build deeper understandings and insights.
- Materials provide a sequence of rich tasks providing opportunities for students to discuss, make conjectures, validate, generalize, extend, connect, and communicate with their peers.

Materials show aspects of rigor.

*Statements of appraisal and supporting evidence:*

- Students demonstrate their conceptual understanding of key mathematical concepts by completing hands-on activities and real-world math problems while constructing viable arguments to discuss and solve problems.
- Students apply concepts and skills recursively to practice procedural skills and fluency and connect to ideas that students have learned previously.
- Students spend ample time working with engaging applications of the mathematics without losing focus on the standards of that grade.

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

Reviewer #43

\_\_\_ 85.71% \_\_\_

Reviewer #33

\_\_\_ 78.57% \_\_\_

Reviewer #77

\_\_\_ 71.43% \_\_\_

Average Score

\_\_\_ 78.57% \_\_\_

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

*Statements of appraisal and supporting evidence:*

- Materials provide full explanations and examples of mathematical concepts so that teachers can improve their own knowledge of the content.
- Materials contain the focus question and problem description that explains the focus and loosely connects it to prior knowledge from previous lessons and sometimes previous grades.
- Materials provide questions and limited insight to student thinking with suggestions on how to scaffold lessons by reminding students of concepts/skills they have previously learned.

Materials support student learning of mathematics.

*Statements of appraisal and supporting evidence:*

- Materials teach students vocabulary but do not explicitly instruct the teacher or the students to use correct vocabulary.
- Materials provide lab sheets, teaching aids, guiding questions, and digital content such as diagrams and virtual manipulatives to provide support for arguments and explanations that strengthen student learning.
- Materials provide guiding questions that encourage some discourse. "A Guide to Connected Mathematics 3" provides strategies, but they are not listed throughout the teacher's manuals or

embedded within the lesson. The teacher would have to know the strategies and remember to implement them throughout the lessons.

- Materials give strategies for teachers to involve parents/guardians and provide a letter in both Spanish and English at the beginning of each unit stating the goals of the unit and providing support for families.

**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 #43

\_\_\_ 96.34% \_\_\_

Reviewer #33

\_\_\_ 87.20% \_\_\_

Reviewer #77

\_\_\_ 90.24% \_\_\_

Average

\_\_\_ 91.26% \_\_\_

Materials are consistent with the progressions in the standards.

*Statements of appraisal and supporting evidence:*

- Lessons within the curriculum are designed with progression in the standards.
- Materials show planning charts with daily pacing and 90 minute block pacing.
- Pacing guidelines explain that pacing needs to be steady and not to spend too much time on one problem. Each unit contains pacing schedules for 50-60 minute periods and block scheduling based on field testing. Over the course of a year, the 10 minute difference between a 50 and 60 minute class amounts to about one unit and if districts devote time for mandated tests, this can shorten teaching by 1 to 2 months.
- Provides planning charts with various activities, hands-on activities, checkups, quizzes, and teaching aids.
- Provides guidance to explicitly connect to concepts learned previously from earlier grades.

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

*Statements of appraisal and supporting evidence:*

- Lessons are designed to provide for essential understanding of the topic being studied and to satisfy the grade level standards.
- Materials show goals and standards that align with CCSS for each lesson and how they naturally connect to one another.
- Investigations include the following key elements to foster coherence: problems, applications-connections-extensions, mathematical reflections, and mathematical practices reflection.
- Each investigation builds toward the mathematical goals of the unit.

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

*Statements of appraisal and supporting evidence:*

- Each lesson within the investigations provides planning resources for teachers.
- Each lesson has teacher notes for engaging in the lesson.
- Materials provide suggested guiding questions, grouping strategies, strategies for differentiation, and questions to encourage mathematical discourse.
- Materials provide explanations of approaches and research-based strategies.
- Materials provide strategies for teachers to identify and address common student errors/misconceptions.

- Materials provide for a discussion on prior knowledge before each lesson but there are not clear strategies for collecting and evaluating students' prior knowledge, making it difficult for a new teacher.

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

*Statements of appraisal and supporting evidence:*

- Additional practice is available online.
- Materials clearly show which standards are addressed in each lesson.
- Rubrics are available to use as a guideline; they are vague, but do show sample strategies in the answer key.
- Materials provide multiple types of formative and summative assessments including performance-based tasks, questions, and projects that are embedded into the content materials and assess learning targets.
- Materials provide opportunity for students to reflect on their learning at the end of each Investigation.

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

*Statements of appraisal and supporting evidence:*

- Additional practice is available for teachers to provide to students who need more practice.
- Materials provide strategies to help the teacher connect prior knowledge, ask questions to check for understanding, and suggestions on how to differentiate.
- Materials provide specific strategies for special needs, gifted and ELLs.
- Materials provide support specifically for ELL students with various strategies to support regular participation.
- Materials provide opportunities for students to investigate content beyond the lesson.
- Materials provide a limited number of illustrations but they are a balanced portrayal of various demographic and personal characteristics.
- Materials provide a glossary with English and Spanish definitions but do not otherwise encourage students to draw upon their home language or culture.

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:*

- Online resources allow teachers to assign work to students.
- Materials are web-based and compatible with multiple internet browsers and can be used with mobile devices.
- Materials provide a rich collection of assessment tools and strategies for promoting rich classroom discourse, monitoring and assessing students' understanding and reasoning during class, and paper and pencil assessments.
- Materials integrate videos to launch lessons, integrating digital assignments and virtual manipulatives.

Materials can be easily customized for individual learners.

*Statements of appraisal and supporting evidence:*

- Materials include opportunities for the teacher to upload files, add links, and customize tests.
- Materials are organized in units around themes/topics.
- Provides a website where teachers can get professional development, sign up for conferences and workshops, ask for teacher support, and encourages collaboration through social media.

Materials take into account cultural perspectives.

*Statements of appraisal and supporting evidence:*

- There was some reference to different cultures in the characters that were used in the books.
- The Glossary and Unit Letters are offered both in English and Spanish but the materials do not offer other languages.
- Materials encourage creating a classroom environment that builds on diverse experiences through ELL strategies.
- Materials promote student engagement by exploring mathematical concepts and related skills and procedures to help students develop strategies and conceptual understanding.

**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 #43 background and experience:**

*Professional summary of material:*

**Reviewer #33 background and experience:**

Level II Educator K-8 and 7-12 Secondary Licensure with endorsements in Social Studies and Math for both licenses. I have 4 Master Degrees. I have a Master of Arts in Sociology from NMSU, Master of Education: Secondary Education from ENMU, Master of Arts in Teaching from ENMU, and a Master of Arts in Education: Curriculum and Instruction from NMSU. Also have a Bachelor of Business: Minor in Finance and Management from NMSU. Previous Middle School 8th grade Math teacher for 2 year. Current High School Math Teacher and Math Department Head for 5 years. I am currently pursuing my National Board Certification in Mathematics: Early Adolescents.

*Professional summary of material:*

Students and teachers have access to the grade level curriculum in digital or in print. The teachers edition provides a suggested instructional phases section at the beginning of the unit of study. A planning chart is available for teachers to use to get an overview of the materials. A block pacing chart is also included. Students have access to digital math tools and activities at the accompanying website for additional practice. Mathematical Highlights is a section provided for students to track their progress through a unit with “student friendly” goals that preview the unit. At the end of each investigation, students are presented with mathematical reflections that provide for deeper conceptual understanding. The curriculum provides for various assessment opportunities through the investigations. The curriculum provides embedded strategies and pedagogical strategies for engaging and providing learning opportunities for all students in the classroom.

**Reviewer #77 background and experience:**

I am a Level 3 teacher and hold a dual license in Early Childhood and K-8 Elementary Education with National Board Certification in Literacy. I am certified in ESL and working on my gifted certification. I have taught in a variety of settings including full inclusion, multi-grade level, special education gifted, and single grade level content specific classrooms. I am currently teaching middle school science but have taught gifted ELA and elementary grades K through 4 and have served as SAT and Grade Level Chair. I am a certified support provider for National Board Candidates wishing to achieve National Board Certification.

*Professional summary of material:*

This curriculum addresses the standards for the grade level and provides an ample amount of real-world math application problems. The digital aspect of the program provides digital tools for students to use and manipulate during lessons, teacher support and resources, and numerous assessment opportunities.

Students monitor their progress through the use of end-of-lesson reflections. Materials provide opportunities and guidelines for teachers to assess the needs of students and differentiate instruction both in digital and print format for a range of learners. Materials provide many opportunities for student discourse and lessons focus on conceptual understanding and application integrated throughout various lessons or repeated practice and application. Overall, I would recommend this curriculum because it provides opportunities for students to apply their knowledge and explain their thinking.