

Guidance Tool: Mathematics

As one prepares to deeply understand the Standards, there is a need to recognize they can have different goals. These goals are tied specifically to the aspects of rigor needed for that specific Standard. The three aspects of rigor are often illustrated as a stool, as in the image to the right. Each of these three aspects is critical and needs to be addressed for students to be able to reach the depth of learning that is expected by the Standards.

Priority standards, as identified by NMPED, are denoted with red highlighting. Priority standards are the most critical prerequisite skills and knowledge a student needs. This does not mean that these are only standards required to be taught, just these are the standards that will allow for the acceleration the students of New Mexico need during this time.



Conceptual Understanding

Conceptual Understanding standards help students build a deep understanding of the **how** and **why** of mathematics.



Application


Application standards help students identify the appropriate concepts and skills to tackle **novel real-world problems**.



Procedural Skill and Fluency

Procedural standards help students develop **efficiency** and **accuracy** in computations.

Sample icon-coding.

Goal	CCSS Domain	CCSS Cluster
2	Operations and Algebraic Thinking	Represent and solve problems involving addition and subtraction.
 Cluster Standard: 2.OA.A.1		
Standard	Standards for Mathematical Practice	
Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	<ul style="list-style-type: none"> • SMP 1: Students can make sense of problems and persevere in solving them by visualizing what is happening in the problem and how the components are related. • SMP 2: Students can reason abstractly and quantitatively by using numbers and symbols to represent quantities. • SMP 4: Students can model with mathematics by using pictures, number lines and other representations to model and solve problems. 	

The icon coding aligns with the aspect of rigor so teachers can easily see which standards go along with each goal.

Domain-specific Recommendations for K-8 Grade Bands: In addition to specific Standards, and depending on diagnostic data, there may be a need to prioritize an entire domain/group of Standards. This prioritization does not mean adjusting the scope and sequence to dramatically increase the number of days on these Standards, but rather a focus on specific student gaps that may need to be addressed in unit or daily lesson planning. Depending on the course in high school, different domains are needed for prioritization, but all of these priorities support success in mathematics.

Domain Specific Recommendations by Grade Level.	
Grade	Recommendations
K	Counting and Cardinality: Students in these grades need to practice the skills with a variety of complex numbers. This sets the foundation for understanding the quantities numbers represent. This is needed for students to be successful in future grades.
1-2	Number and Operations in Base 10: Students in these grades need to deeply understand these Standards to become fluent and accurate with computation with complex numbers throughout future grade levels.
3-5	Fractions: Students in these grade levels need opportunities to work with a variety of representations of fractions. They need to develop a concrete realization of a fraction, just as they use counters to help anchor a mental image of a whole number. This is foundational to being able to use fractions with various operations.
6-8	Expressions and equations: Students in these grade levels work with proportionality and equations. This learning solidifies connections to linear algebra and linear functions, essential for algebra and high school.