



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.

CONCEPTUAL UNDERSTANDING
Students build a deep understanding of the **how** and **why** of mathematics.

APPLICATION
Students identify the appropriate concepts and skills to tackle **novel** **real-world problems**.

PROCEDURAL SKILL & FLUENCY
Students develop **efficiency** and **accuracy** in computations.

Example
color-coding



6.EE: EXPRESSIONS & EQUATIONS		
Cluster Statement: Apply and extend previous understandings of arithmetic to algebraic expressions.		
Major Cluster: Students should spend the large majority of their time (85-95%) on the major work of the grade/course. Supporting work and, where appropriate, additional work should be connected to and engage students in the major work of the grade.		
Standard Text	Standard for Mathematical Practices	Students who demonstrate understanding can:
6.EE.A.1 Write and evaluate numerical expressions involving whole-number exponents.	Shift 6: Students can attend to precision by using appropriate vocabulary and accurately. Students must also set up expressions, equations, and/or inequalities that represent the correct interpretation of the problem at hand.	<ul style="list-style-type: none"> Write and evaluate numerical expressions involving whole-number exponents using the correct terminology. Evaluate numerical expressions using their knowledge of order of operations from previous years.

Throughout this document, Standards are **bolded**. This was done to provide teachers with a quick at-a-glance view to know which Standards are priorities for acceleration. The color coding aligns with the aspect of rigor so teachers can easily see which standards have which goals.

Color Coding Key:

Conceptual Understanding | **Procedural Skill & Fluency** | **Application**

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 Bands:

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.