Common Core State Standards Shifts in Mathematics

1. **Focus** strongly where the Standards focus

Focus: The Standards call for a greater focus in mathematics. Rather than racing to cover topics in a mile-wide, inch-deep curriculum, the Standards require us to significantly narrow and deepen the way time and energy is spent in the math classroom. We focus deeply on the major work* of each grade so that students can gain strong foundations: solid conceptual understanding, a high degree of procedural skill and fluency, and the ability to apply the math they know to solve problems inside and outside the math classroom.

2. **Coherence**: **think** across grades, and **link** to major topics within grades

Thinking across grades: The Standards are designed around coherent progressions from grade to grade. Learning is carefully connected across grades so that students can build new understanding onto foundations built in previous years. Each standard is not a new event, but an extension of previous learning.

Linking to major topics: Instead of allowing additional or supporting topics to detract from the focus of the grade, these concepts serve the grade level focus. For example, instead of data displays as an end in themselves, they are an opportunity to do grade-level word problems.

3. **Rigor**: in major topics* pursue:
   - **conceptual understanding**,
   - procedural skill and **fluency**, and
   - **application** with equal intensity.

Conceptual understanding: The Standards call for conceptual understanding of key concepts, such as place value and ratios. Students must be able to access concepts from a number of perspectives so that they are able to see math as more than a set of mnemonics or discrete procedures.

Procedural skill and fluency: The Standards call for speed and accuracy in calculation. Students are given opportunities to practice core functions such as single-digit multiplication so that they have access to more complex concepts and procedures.

Application: The Standards call for students to use math flexibly for applications in problem-solving contexts. In content areas outside of math, particularly science, students are given the opportunity to use math to make meaning of and access content.

High-level Summary of Major Work in Grades K–8

K–2	Addition and subtraction—concepts, skills, and problem solving; place value
3–5	Multiplication and division of whole numbers and fractions—concepts, skills, and problem solving
6	Ratios and proportional relationships; early expressions and equations
7	Ratios and proportional relationships; arithmetic of rational numbers
8	Linear algebra and linear functions

*For a list of major, additional and supporting clusters by grade, please refer to 'Focus in Math' at achievethecore.org/focus pp. 4–12