Key Instructional Shifts of the Common Core State Standards

Mathematics	
1. Focus strongly where the Standards focus	Rather than racing to cover everything in today's mile-wide, inch-deep curriculum, teachers use the power of the eraser and significantly narrow and deepen the way time and energy is spent in the math classroom. They focus deeply on only those concepts that are emphasized in the standards so that students can gain strong foundational 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: Instead of treating math in each grade as a series of disconnected topics, principals and teachers carefully connect the learning within and across grades so that, for example, fractions or multiplication develop across grade levels and students can build new understanding onto foundations built in previous years. Teachers can begin to count on deep conceptual understanding of core content and build on it. Each standard is not a new event, but an extension of previous learning. Linking to major topics: Instead of allowing less important topics to detract from the focus of the grade, these topics are taught in relation to the grade level focus. For example, data displays are not an end in themselves but are always presented along with grade-level word problems.
3. Rigor: require conceptual understanding, procedural skill and fluency, and application with intensity.	Conceptual understanding: Teachers teach more than "how to get the answer" and support students' ability to access concepts from a number of perspectives so that students are able to see math as more than a set of mnemonics or discrete procedures. Students demonstrate deep conceptual understanding of core math concepts by solving short conceptual problems, applying math in new situations, and speaking about their understanding. Procedural skill and fluency. Students are expected to have speed and accuracy in calculation. Teachers structure class time and/or homework time for students to practice core functions such as multiplication facts so that students are able to understand and manipulate more complex concepts. Application: Students are expected to use math and choose the appropriate concept for application even when they are not prompted to do so. Teachers provide opportunities at all grade levels for students to apply math concepts in "real world" situations. Teachers in content areas outside of math, particularly science, ensure that students are using math – at all grade levels – to make meaning of and access content.