Crosswalk of Common Core Instructional Shifts: Mathematics

6 Shifts: EngageNY www.engageny.org

3 Shifts: Student Achievement Partners www.achievethecore.org

1: Focus: Teachers use the power of the eraser and significantly narrow and deepen the scope of how time and energy is spent in the math classroom. They do so in order to focus deeply on only the concepts that are prioritized in the standards so that students reach strong foundational knowledge and deep conceptual understanding and are able to transfer mathematical skills and understanding across concepts and grades.

1: Focus strongly where the Standards focus

2: Coherence: Principals and teachers **carefully connect** the **learning within and across grades** so that, for example, fractions or multiplication spiral 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**.

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

- **3: Fluency:** Students are expected to have **speed and accuracy** with simple calculations; teachers structure class time and/or homework time for students to **memorize**, through repetition, **core functions** (found in the attached list of fluencies) such as multiplication tables so that they are **more able to understand** and **manipulate more complex concepts**.
- **4: Deep Understanding:** Teachers teach more than "how to get the answer" and instead 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 **applying** them to **new situations** as well as **writing and speaking about their understanding**.

5: 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.**

3: Rigor: Require **fluency**, **application**, and **deep understanding**

6: Dual Intensity: Students are **practicing and understanding**. There is more than a balance between these two things in the classroom – both are occurring with intensity. Teachers create opportunities for students to participate in "drills" and make use of those skills through **extended application of math concepts**. The amount of time and energy spent **practicing and understanding** learning environments is driven by the specific **mathematical concept** and therefore, varies throughout the given school year.