





Mathematics Instruction Self-Assessment Tool







The purpose of this tool is to ensure that every day, teachers are facilitating mathematical experiences that reflect CCPCS' core values and beliefs of high quality instruction while moving students towards mastery of the Common Core State Standards content and practice standards. The three core actions and subsequent indicators are intended to be used by teachers to self-assess their current level of understanding and implementation and to set goals for professional growth. Teachers may choose to utilize this tool three times a year. Once, at the beginning of the school year to set broad, year-long goals for student and professional growth, mid-year (January/February) to check in and monitor progress towards goals, and again at the end of the school year in order to self-assess growth and make new goals for the following year. Teachers may also choose to follow up with Instructional Coaches or engage in some other form of professional development such as workshops, classes or conferences in order to receive further support with accomplishing their professional goals for mathematics instruction.

Teachers should read each indicator and the performance level descriptors present at each end. Teachers should then mark an X on the line which indicates their current level of consistent performance for that particular indicator. The notes section may be used for teachers to capture notes to themselves that they will use for later follow-up. These notes may include goals, evidence, questions, or next steps.

Core Action 1: Ensure the work of the lesson reflects the shifts required by the CCSS for Mathematics.

<i>Indicators</i>	<i>Evidence Continuum</i>	<i>Notes</i>
<p>The lesson focuses on grade-level content standard(s) or part(s) thereof.</p>	 <p>The lesson focuses only on mathematics outside the grade-level standards.</p> <p>The lesson focuses only on mathematics within the grade-level standards.</p>	
<p>The lesson intentionally relates new concepts to students' prior skills and knowledge</p>	 <p>No connections are made to students' prior skills and knowledge</p> <p>The lesson explicitly builds on students' prior skills and knowledge and students articulate these connections.</p>	
<p>The lesson rests within a unit that reflects the full intent of the grade-level content standard(s) being addressed.</p>	 <p>The lesson superficially or only partially reflects the standard(s) being addressed.</p> <p>The lesson explicitly targets aspect(s) of rigor called for by the standard(s) being addressed.</p>	
<p>The lesson follows the content and sequence in the grade level curriculum map.</p>	 <p>The lesson is not related to the content in the curriculum map</p> <p>The lesson explicitly builds on students' prior skills and knowledge and students articulate these connections.</p>	







Core Action 2: Employ instructional practices that allow all students to master the content of the lesson.

Indicators	Evidence Continuum	Notes
The teacher uses explanations, representations, and/or examples to make the mathematics of the lesson explicit.	 Teacher instruction is limited to showing how to get the answer. Teacher instruction goes beyond showing how to get the answer.	
The teacher plans and poses high quality ¹ questions, tasks, and problems that prompt students to share their developing thinking about the content of the lesson.	 Questions, tasks, and problems do not prompt students to share their developing thinking. Questions, tasks, and problems prompt students to share their developing thinking.	
The teacher provides time for students to work (individually, with a partner, or in a group) with and practice grade-level problems and exercises.	 Students are given limited time to work with grade-level problems and exercises. Students are given extensive time to work with grade-level problems, tasks, and exercises.	
The teacher uses variation in students' solution methods to strengthen other students' understanding of the content.	 A single solution method is provided and discussed. A variety of student solution methods are shared and examined together to support understanding.	
The teacher checks for understanding throughout the lesson, using informal, but deliberate methods (such as questioning, conferring, or assigning short problems).	 There are few or no checks for understanding, or understanding of only a few students is assessed. Checks for understanding are used throughout the lesson to assess progress of all students.	
The teacher guides student thinking toward the focus of the lesson and summarizes the mathematics with references to student work and discussion ² .	 The lesson concludes with no summary of its focus. The mathematics of the lesson is summarized with reference to student work and discussion.	

¹ See "Criteria for High Quality Math Tasks" for description of high quality tasks and questions.

² These actions may be viewed over the course of 2-3 class periods.

Core Action 3: Provide all students with opportunities to exhibit mathematical practices in connection with the content of the lesson.³

Indicators	Evidence Continuum	Notes
The teacher uses strategies to keep all students persevering with challenging problems.	 When students reach frustration they shut down or appeal for teacher help. Students persist in efforts to solve challenging problems.	
The teacher establishes a classroom culture in which students explain their thinking.	 Students give single word responses with no further elaboration. Either spontaneously or with prompting, students elaborate to explain their thinking.	
The teacher orchestrates conversations in which students talk about each other's thinking.	 Classroom discourse is mostly teacher-led. Conversations are mostly unidirectional from teacher to students. Students talk about and ask questions about each other's thinking, in order to clarify or improve their own understanding.	
The teacher connects students' informal language to precise mathematical language appropriate to their grade.	 Students are not prompted to use appropriate math vocabulary in their explanations and discussions. Students use precise mathematical language in their explanations and discussions.	
The teacher has established a classroom culture in which students choose and use appropriate tools when solving a problem.	 Math tools are not available for students' use. Students use appropriate tools strategically when solving a problem.	
The teacher asks students to explain and justify work using words, pictures and numbers, and provides feedback that helps students revise initial work.	 Student work is limited or unclear. Students do not revise initial work after receiving feedback. Student work includes revisions, especially revised explanations and justifications.	

³ Some or most of the indicators and student behaviors should be observable in every lesson, though not all will be evident in all lessons.