

Mathematics Instructional Implications

What we know	What should <u>students</u> know and do?	What should <u>teachers</u> know and do?	What should <u>leaders</u> know and do?
<p>8) The assessment will reflect the focus of the standards.</p> <ul style="list-style-type: none"> • The vast majority of score points will come from the major work of the grade. • No items will directly or indirectly assess students on topics prior to the introduction of that topic in the standards (i.e. probability including chance, likely outcomes and probability models will not be assessed prior to grade 7, statistical distributions will not be introduced prior to grade 6 and similarity, congruence and geometric transformations are introduced in grade 8.) • Questions will balance conceptual understanding, fluency and application, assessed together and separately. 	<ul style="list-style-type: none"> • Experience daily instruction based on the standards with a focus on the major work of the grade from the start of the school year. • Experience a variety of assignments and tasks that deepen understanding of the major work of the grade. 	<ul style="list-style-type: none"> • Personally deeply understand the major work of the grade and what students need to know and do to successfully answer rigorous questions about each topic. • Plan instruction to focus on the major work of the grade from the start of the year. • Provide a variety of opportunities to deepen and demonstrate knowledge of concepts, application and procedures for each topic. 	<ul style="list-style-type: none"> • Ensure any school and district pacing guides and assessment series focus majority of time (and points) on the major work of the grade. • Ensure teachers' assessments reflect a range of types of questions about the major work of the grade.
<p>9) Some questions in every grade level will require students to model and make mathematical arguments.</p> <ul style="list-style-type: none"> • Questions will require extended response in math. • There will be scoring guides and training for scorers. • There will be opportunity for partial credit. • All questions requiring in-person scoring will be on part I. 	<ul style="list-style-type: none"> • Practice explaining thinking in response to instructional and assessment tasks in talk and writing. • Receive feedback on extended responses answers and have the opportunity to apply the feedback in revision and in novel situations. • See models and multiple exemplars of extended response answers. • Practice responding to extended response questions on the platform multiple times before the operational assessment. 	<ul style="list-style-type: none"> • Experience and deeply understand a variety of extended response and modeling tasks. Understand the range of potential student solutions of frequent misconceptions. • Experience the platform personally. • Provide students regular opportunities to explain thinking in talk and writing. • Provide students feedback on their responses and opportunities to apply the feedback in revision and novel situations. 	<ul style="list-style-type: none"> • Ensure any school or district pacing guides and interim assessments include questions that require students to model and make mathematical arguments. • Ensure teachers experience and deeply understand the questions that will be asked and multiple pathways for student solutions. • Ensure teachers understand how questions will be scored and provide feedback to students.
<p>10) Student's fluency with traditional basic procedures will be assessed, as detailed in the standards, in grades 3-6 without the aid of a calculator.</p> <ul style="list-style-type: none"> • Calculators will be permitted on other grades. • Fluency will have some time element. • Fluency will be reported as part of the math score overall. 	<ul style="list-style-type: none"> • Receive instruction on and the opportunity to practice answering problems with procedures without calculators. • Practice using the calculator with the functions that are appropriate prior to the operational assessment and practice responding to questions in a timed setting. 	<ul style="list-style-type: none"> • Experience and deeply understand the type of fluency questions that will be asked. • Understand the tools and functions that will be on the platform and ensure classroom tools reflect these functions. 	<ul style="list-style-type: none"> • Ensure students in grades 3-6 get instruction and practice without a calculator. • Ensure students in all grades practice with the calculator on the platform prior to operational assessment.