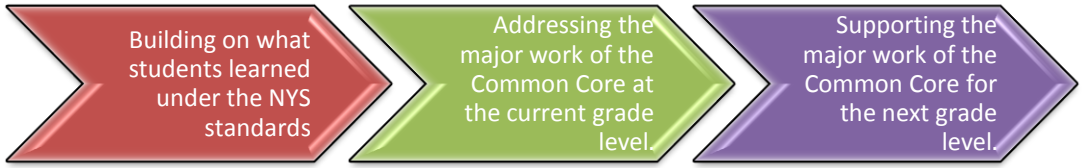
NYCDOE Post Test Guidance for Mathematics Instruction SY 2011-2012
Grades 6-8

During the last few weeks of instruction, post-test, teachers might consider focusing on the gaps between the NYS standards and the Common Core to further prepare for a Common Core-aligned curriculum and state test next year.

The rationale:

These concepts were selected after doing a close examination of the NYS standards and the expectations of the Common Core and the major work of the grade[i] at each grade level to identify anticipated gaps in instruction. These concepts are intended to bridge the gap by:



Note: K-8 mathematics overviews for *next year* that provide guidance around the amount of time that should be spent on concepts across the year, which concepts should be omitted, and how to leverage common text books (i.e. Everyday Math or Impact Math) and other supplemental resources to support teaching the standards in the transition years are forthcoming.

How to Use:

To use this document, teachers should reference the grade they currently teach and:

- Review the concepts indicated to determine if the concepts below were taught during the school year.
- Examine existing instructional plans for the rest of the year to identify where concepts could be meaningfully integrated.
- Identify current curriculum resources (across grade levels) that could support teaching these concepts or try out a supplemental resource that addresses one of these concepts (e.g. textbooks, instructional bundles, resources within your school, etc.)

Is this right for my school?

Schools should assess the needs of their teachers and students and their current plans for curriculum and instruction to decide if focusing on these concepts makes sense for their school. This is a recommendation and not a mandate. Also note, this support is aligned to the major work of the grade within the Common Core. It is not based on any additional information about the shift in next year's tests.

[i] For a listing of content emphases by cluster, refer to http://engageny.org/resource/math-content-emphases. For additional guidance—including key advances by grade, opportunities for in-depth focus, connections between content and practice standards, etc.—refer to http://www.parcconline.org/sites/parcc/files/PARCC%20MCF%20for%20Mathematics_Fall%202011%20Release.pdf.
With questions or feedback on this document, please email commoncorefellows@schools.nyc.gov.

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If the following topics have not been fully addressed over the course of the year, teachers should consider focusing on the following areas:

Grade	Grade 6	Grade 7	Grade 8
Grade Level Common Core Concepts and Standards	**Use Ratio Reasoning to Solve Problems** • Use ratio and rate reasoning to solve real-world and mathematical problems using a variety of strategies. **Factors and Multiples** • Find greatest common factor of two whole numbers up to 100 and the least common multiple of two whole numbers less than or equal to 12. **Extend Arithmetic Understanding to Algebraic Expressions** • Identify parts of an expression using mathematical terms (sum, term, product, factor, quotient, coefficient); view one or more parts as a single entity. • Apply the properties of operations to generate equivalent expressions including distributive property; identify when two expressions are equivalent. **One-Variable Equations and Inequalities** • Write an inequality of the form $x>c$ or $x< c$ to represent a constraint or condition in a real-world or mathematical problem and recognize that inequalities in these forms have infinitely many solutions; represent solutions of such inequalities on a number line. • Understand solving an equation or inequality as a process of answering a question: which values from a specified set, if any, make the equation or inequality true? **Finding Surface Area Using Nets** • Represent three-dimensional figures using nets and use nets to find surface area.	**Understand, Analyze, and Apply Proportional Relationships** • Understand the concept of a unit rate a/b associated with a ratio $a:b$ with $b\neq 0$ and compute unit rates with ratios of fractions, including ratios of length, areas and other quantities measured in like or different units. • Describe whether two quantities are in a proportional relationship using different strategies. • Use proportional relationships to solve multistep percent problems. **Multi-Step Expressions and Equations** • Solve multi-step real-life and mathematical problems posed with positive and negative rational numbers in any form (whole numbers, fractions, and decimals). Apply properties of operations to calculate with numbers in any form; convert between forms as appropriate; and assess the reasonableness of answers using mental computations and estimation. **Inequalities** • Solve word problems leading to inequalities of the form $px + q > r$ or $px + q < r$, where p, q, and r are specific rational numbers. Graph the solution set of the inequality and interpret it in the context of the problem.	**Analyze Linear Equations in One Variable** • Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms. Until equivalent equation of the form $x=a$, $a=a$, or $a=b$ results (where a and b are different numbers). **Analyze and Solve Simultaneous Linear Equations** • Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. • Solve real-world and mathematical problems leading to two linear equations in two variables. **Compare Functions** • Compare properties of two functions each represented in a different way. **Applying the Pythagorean Theorem to the Coordinate System** • Apply the Pythagorean Theorem to find the distance between two points in the coordinate system.

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