## **New York State Next Generation Mathematics Learning Standards**

This document is intended to help educators identify the key changes that have occurred to the content standards for this grade level/course and to assist with designing curriculum and lessons aligned to the NYS Next Generation Mathematics Learning Standards. This document does not contain the comprehensive list of learning standards for the grade level/course. The complete list of standards for the grade level/course can be found at <a href="NYS Next Generation Mathematics Learning Standards">NYS Next Generation Mathematics Learning Standards</a>.



## **Standards New** to Grade 4

No new standards.

## Standards Moved from Grade 4

No standards moved.

## **Highlights/Instructional Considerations**

**NY-4.OA.3** Expressions, in addition to equations can be utilized for multi-step word problems. These problems do not need to be represented by one equation or expression, but can be broken down into more than one. Order of operations is an expectation of grade 5 (NY-5.OA.1).

NY-4.OA.5 Students need to be able to generate a pattern given a rule, as well as identify and informally explain features that appear within the pattern not explicitly defined in the rule itself.

NY-NBT (ALL) Grade 4 expectations are limited to whole numbers less than or equal to 1,000,000.

NY-4.NBT.4 Students may use any standard algorithm for the addition/subtraction of multi-digit whole numbers.

**NY-4.NBT.5** (and 6) Students can utilize any strategy for finding whole-number products and quotients. Algorithms for multiplication and division are not an expectation until grades 5 and 6 respectively.

NY-4.NF (ALL) Grade 4 expectations are limited to fractions with denominators 2, 3, 4, 5, 6, 8,10,12 and 100.

**NY-4.NF.4** The focus of the standard is multiplying a whole number by a fraction  $(4 \times 1/3)$ , whereas multiplication of a fraction by a whole number  $(1/3 \times 4)$  is introduced in grade 5 with standard NY-5.NF.4a.

**NY-4.MD.1** Students must know conversion factors for ft., in.; km, m, cm; hr., min., sec. Conversions factors for all other single systems of measurement will be given. Conversion of measurements are from a larger unit to a smaller unit.

NY-4.MD.2 Problems involving fractions will be limited to denominators 2, 3, 4, 5, 6, 8, 10, 12 and 100.

**NY-4. G.2** Students need to be able to identify and name triangles based on angles. Students need to be able to identify quadrilaterals that are parallelograms, as well as identify quadrilaterals that are rectangles. Hierarchy of two-dimensional figures, including the quadrilateral family is an expectation of grade 5 (NY-5.G.3 and 4).