New York City Department of Education
Scope and Sequence Sample– Kindergarten
2012-13 School Year

Overview

This document was created after closely examining the Common Core Learning Standards (CCLS) and the previous New York State Standards. It provides a high-level CCLS-aligned scope and sequence for Mathematics that also takes into account the differences in and transition from the New York State Standards. The scope and sequence is aligned to the Common Core and demonstrates a focus on the major work of the grade[1], which the State has indicated will be the focus of next year's 3-8 State exams. This scope and sequence represents one way that a school may choose to organize and teach the full range of the standards before the state test. It is not based on any additional information about the changes in next year's tests. This document contains the following components:

- **Year-long Overview:** A one-page view of the year that shows the:
  - **Unit Summary**: The number of suggested units across the year and the amount of instructional time spent on each unit. The instructional time is represented as pre-State test and post-State test.
  - **Omitted Concepts:** Concepts that are no longer taught at this grade-level according to the CCLS.
  - **Bridge Guidance:** Concepts that would have been taught in earlier grades, according to the Common Core, but were not part of the New York State Standards. They should be considered and woven into units during transition years since the concepts were not previously addressed/addressed fully in the New York State Standards. We ask that you consider the needs of your students when deciding if it is necessary to teach these concepts.
- **High-level Unit Overviews:** Overviews of each unit that include the:
  - **Unit Description:** A narrative description of the concepts the unit is intended to cover and the amount of instructional time suggested.
  - **Standards:** The group of related standards that should be taught within the unit. The standards within units are **not** intentionally sequenced. Schools should use the high-level unit overviews and compare them to current curricula to teach a unit that fully represents the standards addressed.

How to Use:

To use this document, teacher teams could:

- Review the year-long and unit overviews to assess whether the scope and sequence makes sense for their school.
- Use the high-level unit overviews and resources available at the school and forthcoming from the State to teach a sequence of instruction that fully addresses the standards represented.

[1] 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.

Version 6.6.2012

Scope and Sequence Sample: Overview School Year 2012-13 – Grade Kindergarten

This document provides a high-level scope and sequence aligned to the Common Core Learning Standards for Mathematics and demonstrates a focus on the major work of the grade, which the SED has indicated will be the focus of next year's 3-8 State exams. This scope and sequence represents one way that a school may choose to organize and teach the full range of the standards before the state test. It is not based on any additional information about the shift(s) in next year's tests.

Kindergarten Year-Long Overview:

This table shows an overview of all units that should be taught across the year and the recommended instructional time for each unit[1].

Kindergarten: Suggested Distribution of Units in Instructional Days	Time	# of weeks
Unit 1: Classify and Count Numbers to 10	25%	**8 weeks**
Unit 2: Geometry: Identify and Describe States	5%	**2 weeks**
Unit 3: Comparison with Length, Weight and Numbers to 10	20%	**7 weeks**
Unit 4: Number Pairs, Addition and Subtraction of Numbers to 10	30%	**11 weeks**
Unit 5: Geometry: Analyze, Compare, Create and Compose Shapes	5%	**2 weeks**
Unit 6: Numbers 10-20, Counting to 100	15%	**6 weeks**

Omitted Concepts:

- Gather data, help make and analyze simple graphs. (Now in Grade 2)
- Explore symmetry (students now develop the background for initial understanding in Grades 1 & 2; mastery now in Grade 4)
- Recognize, describe, extend and create patterns. (Now in Grade PK)

[1] Unit overviews and suggested instructional time are based on *Common Core Curriculum Maps in Mathematics: Overview of Kindergarten-Grade 4 Units* developed by Common Core, Inc.

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Unit 1: Classify and Count Numbers to 10 – (8 Weeks)

DESCRIPTION: Students will understand the relationship between numbers & quantities by making the connection between counting to cardinality. The Mathematical Practices should be evident throughout instruction and connected to the content addressed in this unit. Students should engage in mathematical tasks that provide an opportunity to connect content and practices.

Standards

The standards listed below are **not** intentionally sequenced and should **not** simply be taught consecutively. Strong units weave these standards together in a thoughtful and coherent way. Schools and teacher teams can use this document to compare their current curriculum to and choose high leverage moments to enhance instruction.

K.MD.3: Classify objects into given categories: count the numbers of objects in each category & sort the categories by count.

K.CC. 4: Understand the relationship between numbers and quantities, connect counting to cardinality.

a. When counting objects, say the number names in the standard order pairing each object with one & only one number name & each number name with one & only one object.
b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.
c. Understand that each successive number name refers to a quantity that is one larger.
d. Develop understanding of ordinal numbers (first through tenth) to describe the relative position and magnitude of whole numbers.

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Unit 2: Geometry: Identify and Describe Shapes (Squares, Circles, Triangles, Rectangles, Hexagons, Cubes, Cones, Cylinders, and Spheres) – (2 Weeks)
DESCRIPTION: Students describe their physical work using geometric ideas and vocabulary. They identify, name, and describe basic two-dimensional shapes presented in a variety of ways as well as three-dimensional shapes. The Mathematical Practices should be evident throughout instruction and connected to the content addressed in this unit. Students should engage in mathematical tasks that provide an opportunity to connect content and practices.
Standards
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K.G.1 Describe objects in the environment using names of shapes, & describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, & next to.
K.G.2 Correctly name shapes regardless of their orientations or overall size.
K.G.3 Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").

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Unit 3: Comparison with Length, Weight and Numbers to 10 – (7 Weeks)
DESCRIPTION: Students focus on representing, relating, and operating on whole numbers with sets of objects. They will make connections to counting and representing quantities as they describe and compare measureable attributes. The Mathematical Practices should be evident throughout instruction and connected to the content addressed in this unit. Students should engage in mathematical tasks that provide an opportunity to connect content and practices.
Standards
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K.MD.1 Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.
K.MD.2 Directly compare two objects with a measurable attribute in common. To see which object has "more of"/"less of" the attribute & describe the difference. For example, directly compare the heights of two children & describe one child as taller/shorter.
K.CC.6 Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching & counting strategies.

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Unit 4: Number Pairs, Addition and Subtraction of Numbers to 10 – (11 Weeks)

DESCRIPTION: Students use numbers to represent quantities and to solve quantitative problems, such as counting objects in a set; counting out a given number of objects; comparing sets or numerals; and modeling simple joining and separating situations with sets of objects. The Mathematical Practices should be evident throughout instruction and connected to the content addressed in this unit. Students should engage in mathematical tasks that provide an opportunity to connect content and practices.

Standards

The standards listed below are **not** intentionally sequenced and should **not** simply be taught consecutively. Strong units weave these standards together in a thoughtful and coherent way. Schools and teacher teams can use this document to compare their current curriculum to and choose high leverage moments to enhance instruction.

K.CC.7 Compare two numbers between 1 & 10 presented as written numerals.

K.OA.1 Represent addition & subtraction with objects, fingers, mental images, drawings, sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.

K.OA.5 Fluently add & subtract within 5.

K.OA.2 Solve addition & subtraction word problems, & add & subtract within 10, e.g., by using objects or drawings to represent the problem.

K.OA.3 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, & record each decomposition by a drawing or equation (e.g. 5 = 2 + 3 & 5 = 4 + 1).

K.OA.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, & record the answer with a drawing or equation.

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Unit 5: Geometry: Analyze, Compare, Create, and Compose Shapes – (2 Weeks)
DESCRIPTION: Students analyze, compare, and compose shapes. The Mathematical Practices should be evident throughout instruction and connected to the content addressed in this unit. Students should engage in mathematical tasks that provide an opportunity to connect content and practices.
Standards
The standards listed below are **not** intentionally sequenced and should **not** simply be taught consecutively. Strong units weave these standards together in a thoughtful and coherent way. Schools and teacher teams can use this document to compare their current curriculum to and choose high leverage moments to enhance instruction.
K.G.4 Analyze & compare two & three dimensional shapes, in different sizes & orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/corners") and other attributes (e.g., having sides of equal length).
K.G.5 Model shapes in the world by building shapes from components (e.g., sticks & clay balls) & drawing shapes.
K.G.6 Compose simple shapes to form larger shapes. For example, "Can you join these two triangles will full sides touching to make a rectangle?

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Unit 6: Numbers 10-20, Counting to 100 – (6 Weeks)

DESCRIPTION: Students use written numerals to represent quantities and to solve quantitative problems, such as counting objects in a set; counting out a given number of objects; comparing sets or numerals; and modeling simple joining and separating situations with sets of objects. Kindergarten students should see addition and subtraction equations, and students writing of equations is encouraged but not required. The Mathematical Practices should be evident throughout instruction and connected to the content addressed in this unit. Students should engage in mathematical tasks that provide an opportunity to connect content and practices.

Standards

The standards listed below are **not** intentionally sequenced and should **not** simply be taught consecutively. Strong units weave these standards together in a thoughtful and coherent way. Schools and teacher teams can use this document to compare their current curriculum to and choose high leverage moments to enhance instruction.

KCC.1 Count to 100 by ones & tens.

KCC.5 Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration: given a number from 1-20, count tout that many objects.

KCC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).

K.NBT.1 Compose & decompose numbers from 11-19 into ten ones & some further ones, e.g., by using objects or drawings & record each composition or decomposition by a drawing or equation (e.g. 18 = 10 + 8): understand that these numbers are composed of ten ones & one, two three, four, five, six, seven, eight or nine ones.

KCC.2 Count forward beginning from a given number within the known sequence (instead of having to begin at 1).