Los Angeles Unified School District
Office of Curriculum, Instruction, and School Support
2016-2017 Elementary Curriculum Maps
First Grade

Introduction to the Document:
Welcome to the Los Angeles Unified School District's Elementary Mathematics CCSS Curriculum Map for First Grade. The Map is intended to be a one-stop tool for teachers, administrators, parents, and other school support personnel. It blends Common Core State Standards in Mathematics, textbook topics that address those standards, additional resources and Instructional Blocks into one easy-to-read resource.
The Map is a living document—it is neither set in stone for all time nor is it perfect. Teachers and other users are encouraged to provide on-going feedback as to its accuracy, usability, and content.

Organization of the Document:
This Curriculum Map for Mathematics has been organized in several ways to provide flexibility to teachers in planning instruction. Teachers and other users are encouraged to review the various versions and to choose the one that best fits their instructional planning needs.

Under the section *Curriculum Maps and Graphic Organizers by Domain*, the Mathematical Content and Practice standards are listed as they are found in the Common Core State Standards. In this section, teachers and other users will be able to see at a glance the mathematics domains, clusters, and standards for the grade level, and in which textbook chapters the standards can be found.

Under the section *Scope and Sequence* in the Alignment Document, the standards are listed in the developmental sequence outlined in the various textbook series.

Symbols and Footnotes:
Additional key information has been embedded into this guide to assist teachers and others in instructional decision-making.

General Calendar for Instruction and Assessment:
The four Instructional Blocks (IB) and their interim assessments give maximum choice in choosing your course of instruction. Working with your grade level at your school site, your goal is to ensure full instruction and assessment of the grade level standards by the end of the school year.

Using the Mathematics Curriculum Map:
The guide can be thought of as a menu. It cannot be expected that one would do every lesson and activity from the instructional resources provided. To try to teach every lesson or use every activity would be like ordering everything on a menu for a single meal. It is not a logical option. Nor is it possible given the number of instructional days and the quantity of resources. And, like a menu, teachers select, based on instructional data, which lessons best fit the needs of their students – sometimes students need more time with a concept and at other times, less.

Look at the *Scope and Sequence* listings. From there, teachers would map out how much time they feel is needed to teach the concepts within the block based on the data of their students' needs. For example, some classes may need more time devoted to developing addition concepts, while another class at the same grade level may need more focused time on Counting and Cardinality within an Instructional Block.

Then look at the *Curriculum Maps and Graphic Organizers by Domain*. Match the standards and the recommended Resources.

Look at the assessment options. Discuss with your grade level and administration at your school site what assessments you will use, following the guidance of Reference Guide REF-6507.

The starting point for instructional planning is the standards. The textbook resources are just the first tools for teachers in helping to build mathematical understanding. Like going to a restaurant specializing in customer service, there may be times one wishes to order "off-the-menu". There are hundreds of resources available, both publisher- and teacher-created, that may be used to best teach a concept or skill. Collaborative

planning, both within and among grade levels, is strongly encouraged in order to design effective instructional programs for students.

A Guide to the Column Headings:

The **Domains** are the larger groups of related standards and clusters.

The **Clusters** are groups of related standards.

The **Standards for Mathematical Content** define what students should know and be able to do.

The **Standards for Mathematical Practice** describe the varieties of expertise that mathematics educators at all levels should seek to develop in their students. They are the *habits of mind* to be developed, along with the content, in effective mathematics instruction. In any math task, all eight standards may be present, but some practice standards are more naturally paired with some content standards, and those matches are called out here.

The **Resources** are meant to be teacher-guided, whole class activities or are independent of the teacher, and can take place in small groups, pairs, or individually.

The **Assessments** are intended to assist the teacher in providing data to guide instruction. Assessments are considered to be formative throughout the year, if remediation is provided.

The **Domain Legend** explains the key that sorts the clusters into Major (▲), and Supporting or Additional (s/a), as used by the testing services Smarter Balanced and PARCC. The standards will be assessed with 75% of the assessment on the major clusters and 25% on the supporting and additional clusters. There may be a temptation to minimize instruction of the additional clusters, but it is important to teach all the standards, as this may be the only grade level where the standard is taught.

Additional Support contains:
- **Language Objectives** to assist with English Learners and Standard English Learners
- **Enduring Understandings** which are the Big Ideas in Mathematics
- **Essential Questions** which engage the students with interacting with the Big Ideas
- **Key Vocabulary**

Daily Routines call out the classroom practices within the particular Domain. They may last through the whole year, or only through that Instructional Block or Domain.

Differentiation (📖) falls into three categories:
- **Front Loading:** strategies to make the content more accessible to all students, including EL, SEL and students with special needs.
- **Enrichment:** activities to extend the content for all learners, as all learners can have their thinking advanced, and to support the needs of GATE students.
- **Intervention:** alternative methods of teaching the standards, in which all students can have a second opportunity to connect to the learning, based on their own learning style.

Additional Documents:
- **Mathematics Framework for California Public Schools** provides guidance for implementing the standards, including instructional strategies, technology for instruction and criteria for evaluating instructional materials. It can be found at: http://www.cde.ca.gov/ci/ma/cf/draft2mathfwchapters.asp
- **Progressions Document for the Common Core State Standards** from the University of Arizona describes the progressions of a topic across grade levels. It can be found at: http://ime.math.arizona.edu/progressions/
- **Table 1 of the Common Core State Standards for Mathematics** gives specific examples of the common addition and subtraction situations, which may be helpful for kindergarten. It can be found on page 88 of the Glossary: http://www.corestandards.org/wp-content/uploads/Math_Standards.pdf

An **Appendix** to the Curriculum Maps includes:

- **First Ten Days of School for Grade 1** to introduce classroom management and new learning opportunities, including the speaking and listening standards
- **Developmental Milestones** to explain the new grade level content to parents

Grade 1 Critical Areas:

In Grade 1, instructional time should focus on four critical areas: (1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20; (2) developing understanding of whole number relationships and place value, including grouping in tens and ones; (3) developing understanding of linear measurement and measuring lengths as iterating length units; and (4) reasoning about attributes of, and composing and decomposing geometric shapes.

1. Students develop strategies for adding and subtracting whole numbers based on their prior work with small numbers. They use a variety of models, including discrete objects and length-based models (e.g., cubes connected to form lengths), to model add-to, take-from, put-together, take-apart, and compare situations to develop meaning for the operations of addition and subtraction, and to develop strategies to solve arithmetic problems with these operations. Students understand connections between counting and addition and subtraction (e.g., adding two is the same as counting on two). They use properties of addition to add whole numbers and to create and use increasingly sophisticated strategies based on these properties (e.g., "making tens") to solve addition and subtraction problems within 20. By comparing a variety of solution strategies, children build their understanding of the relationship between addition and subtraction.

2. Students develop, discuss, and use efficient, accurate, and generalizable methods to add within 100 and subtract multiples of 10. They compare whole numbers (at least to 100) to develop understanding of and solve problems involving their relative sizes. They think of whole numbers between 10 and 100 in terms of tens and ones (especially recognizing the numbers 11 to 19 as composed of a ten and some ones). Through activities that build number sense, they understand the order of the counting numbers and their relative magnitudes.

3. Students develop an understanding of the meaning and processes of measurement, including underlying concepts such as iterating (the mental activity of building up the length of an object with equal-sized units) and the transitivity principle for indirect measurement.[1]

4. Students compose and decompose plane or solid figures (e.g., put two triangles together to make a quadrilateral) and build understanding of part-whole relationships as well as the properties of the original and composite shapes. As they combine shapes, they recognize them from different perspectives and orientations, describe their geometric attributes, and determine how they are alike and different, to develop the background for measurement and for initial understandings of properties such as congruence and symmetry.