Mathematics
Grade Two

NJ DOE, NJSLA: In Grade 2, instructional time should focus on four critical areas: (1) extending understanding of base-ten notation; (2) building fluency with addition and subtraction; (3) using standard units of measure; and (4) describing and analyzing shapes.
New Jersey Student Learning Standards for Mathematics

Unit	Time	Overview
Unit 1 Numbers Within 20	29 days	In this Unit, students gain fluency with subtraction, using addition and mental math strategies to subtract. Students later transfer this work to operations with two and three digit numbers. Students use pictures, drawings or models to support their thinking and apply these representations as they work to solve one-step word problems. Students analyze the relationship between addition and subtraction as they explore the difference in a subtraction equation and its relationship to the addend in an addition equation. Students apply their understanding of addition and subtraction within 20 to solve problems with data that is represented on bar graphs. Students transfer their knowledge to solve two-step word problems using visual representations and writing equations to represent the problem and the solution.
Unit 2 Numbers Within 100	34 days	In this Unit, students continue to build on addition and subtraction strategies with two-digit numbers, connect addition and subtraction to word problems, money and time, and model addition on an open number line and with number charts and number bonds. Students apply various representations to support their thinking as they work to solve one-step word problems. Students analyze the relationship between addition and subtraction as they explore the difference in a subtraction equation and its relationship to the addend in an addition equation.
Unit 3 Numbers Within 1,000	41 days	In this Unit, students build on mental math strategies,learn how to add larger numbers, and multiple numbers at once. Mental math strategies for subtraction, and using addition strategies to subtract help students to build skill with operations with two and three digit numbers. Students analyze the relationship between addition and subtraction as they explore the different strategies to add and subtract. By the end of the unit students transfer their knowledge to solve a real-world problem manipulating three digit numbers using both visual representations and writing equations to represent the problem and the solution.
Unit 4 Measurement Addition and Subtraction and Line Plots	35 days	In this Unit, students explore length and see how measurement can be connected to addition and subtraction. Students use different benchmark objects to estimate and measure length and compare their estimates using a ruler in inches and in centimeters. Students are able to recognize that we measure using different units of measurement. Students will understand that a centimeter is a lot shorter than a meter. Students will continue to work on estimating and measuring lengths.Students explore, read and interpret information in line plots and connect measurement to line plots by measuring objects and displaying the measurement data in line plots. Students share explanations, reasoning, and information in partner & small group settings.
Unit 5 Shapes and Arrays	20 days	In this Unit, students build upon their basic knowledge of shapes, learn how to classify shapes based on attributes, use repeated addition to add within an array to build foundations for multiplication, and identify even and odd numbers. Students analyze the relationship between partitioning shapes and fractions. Students associate halves, thirds and fourths with 2 equal parts, 3 equal parts and 4 equal parts. Constructing arrays and partitioning rectangles into same-sized shapes will help build foundational knowledge of multiplication.. Students will separate objects into equal groups and unequal groups to help lay foundations for division.

Content Continuum

Grade Two Mathematics

Students recognize the need for standard units of measure (centimeter and inch) and they use rulers and other measurement tools with the understanding that linear measure involves an iteration of units. They recognize that the smaller the unit, the more iterations they need to cover a given length.

Students describe and analyze shapes by examining their sides and angles. Students investigate, describe, and reason about decomposing and combining shapes to make other shapes. Through building, drawing, and analyzing two- and three-dimensional shapes, students develop a foundation for understanding area, volume, congruence, similarity, and symmetry in later grades.

Students extend their understanding of the base-ten system. This includes ideas of counting in fives, tens, and multiples of hundreds, tens, and ones, as well as number relationships involving these units, including comparing. Students understand multi-digit numbers (up to 1000) written in base-ten notation, recognizing that the digits in each place represent amounts of thousands, hundreds, tens, or ones.

Students develop fluency with addition and subtraction within 100. They solve problems within 1000 by applying their understanding of models for addition and subtraction, and they develop, discuss, and use efficient, accurate, and generalizable methods to compute sums and differences of whole numbers in base-ten notation, using their understanding of place value and the properties of operations.

INSTRUCTIONAL / SUPPLEMENTAL MATERIAIS

Illustrative Mathematics

KEY FEATURES OF REVISION

- Incorporates 2023 NJDOE Math Standards Updates inclusive of Climate Change Guidance
- Intentional Focus on Math Discourse and Academic and Math Vocabulary
- Extensive inclusion of Prerequisite Skills
- Incorporation of Personalized Instruction - My Path lessons

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