

Mathematics

Grade Three

NJ DOE, NJSLA: In Grade 3, instructional time should focus on four critical areas: (1) developing understanding of multiplication and division and strategies for multiplication and division within 100; (2) developing understanding of fractions, especially unit fractions (fractions with numerator 1); (3) developing understanding of the structure of rectangular arrays and of area; and (4) describing and analyzing two-dimensional shapes.

New Jersey Student Learning Standards for Mathematics

Unit	Time	Overview
Unit 1 Use Place Value to Round Numbers	21 days	In this Unit, students work with rounding as an essential estimating skill. Students use number line models to determine place value rounding with benchmarks. Students decompose three digit numbers using place value strategies to add and subtract multi-digit numbers, incorporating building visual models to demonstrate understanding of place value and regrouping. Students use modeling place value and regrouping to demonstrate operations with partial sums and expanded notation, eventually establishing skill and accuracy with the standard algorithms.
Unit 2 Multiplication & Division: Concepts, Relationships & Patterns	42 days	In this Unit, students work with: Understanding the meaning of multiplication as finding the total number of items in equal sized groups, Use strategies and models to solve multiplication problems, Interpret multiplication situations using words, pictures, equations, Multiply with 0,1,2,5 and 10, Then multiply with 3,4 and 6, The multiply with 7,8 and 9, Use order, grouping to multiply, Use Place Value to multiply, Understand the meaning of division, Understand how Multiplication and Division are related, Fluently multiply and divide within 100, Understand why number patterns make sense using hundreds chart, multiplication tables, addition tables.
Unit 3 Multiplication Area, Word Problems, Scaled Graphs	30 days	In this Unit, students work to understand area; first with partitioning shapes using congruent square units, then progressing to identifying rows and columns using repeated addition or multiplication, and on to understanding that they can multiply the length of a rectangle times the width of a rectangle to find the area. Students use array models to help them to solve word problems depicting multiplication situations. Using visual models and equations students solve two-step word problems. Students complete the unit interpreting data from scaled bar graphs.
Unit 4 Fractions Measurement and Data	28 days	In this Unit, students represent fractions symbolically with numerators, and denominators limited to 2,3,4,6,and 8. Students create representations of fractions with area models,number lines and fraction strips. Students represent whole numbers as fractions. Students use area models, number lines to compare fractions by reasoning about common numerators, and common denominators. Students connect fractions to measurement and line plots to reinforce their understanding of the relative value of fractions and the meaning of fractions greater than one.
Unit 5 Measurement Time, Liquid Volume, & Mass	16 days	In this unit, students connect prior knowledge of telling time to the half-hour, to understanding telling time to the nearest minute using counting strategies (by 5's and adding one as needed). Students use number lines and analog clocks to determine elapsed time.Students have prior experience iterating linear units of measure. They now will apply that understanding to liquid measure focusing on the metric unit of a liter. Students will experience measuring mass using the metric units of gram and kilogram and will be exposed to distinguishing mass from weight.
Unit 6 Shapes Perimeter & Area	18 days	In this Unit, students extend their work with naming shapes by attributes,developing an understanding that categories of shapes can share attributes. Students' work with perimeter encompasses shapes other than rectangles and squares, and students explore the relationship between area and perimeter by comparing figures that have the same area but different perimeters or figures that have the same [perimeter but different areas. Students further their work with partitioning shapes to represent fractions.

Content Continuum

Grade Three Mathematics

Students develop an understanding of fractions, beginning with unit fractions. Students view fractions in general as being built out of unit fractions, and they use fractions along with visual fraction models to represent parts of a whole.

Students describe, analyze, and compare properties of two-dimensional shapes. They compare and classify shapes by their sides and angles, and connect these with definitions of shapes. Students also relate their fraction work to geometry by expressing the area of part of a shape as a unit fraction of the whole.

INSTRUCTIONAL / SUPPLEMENTAL MATERIALS

[Illustrative Mathematics](#)

Students develop an understanding of the meanings of multiplication and division of whole numbers through activities and problems involving equal-sized groups, arrays, and area models; multiplication is finding an unknown product, and division is finding an unknown factor in these situations.

Students recognize area as an attribute of two-dimensional regions. They measure the area of a shape by finding the total number of same size units of area required to cover the shape without gaps or overlaps, a square with sides of unit length being the standard unit for measuring area.

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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