SCOPE & SEQUENCE
GRADE 5
EUREKA MATH MODULES

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The following information outlines where students and teachers should spend the majority of their time in order to meet the expectation of the standards.

Students should spend the large majority[1] of their time on the major work of the grade (■). Supporting work (□) and, where appropriate, additional work (○) can engage students in the major work of the grade.[2, 3]

MAJOR, SUPPORTING, AND ADDITIONAL CLUSTERS FOR GRADE 5

Emphases are given at the cluster level. Refer to the Common Core State Standards for Mathematics for the specific standards that fall within each cluster.

Key: ■ Major Clusters   □ Supporting Clusters   ○ Additional Clusters

5.OA.A	○	Write and interpret numerical expressions.
5.OA.B	○	Analyze patterns and relationships.
5.NBT.A	■	Understand the place value system.
5.NBT.B	■	Perform operations with multi-digit whole numbers and with decimals to hundredths.
5.NF.A	■	Use equivalent fractions as a strategy to add and subtract fractions.
5.NF.B	■	Apply and extend previous understandings of multiplication and division to multiply and divide fractions.
5.MD.A	□	Convert like measurement units within a given measurement system.
5.MD.B	□	Represent and interpret data.
5.MD.C	■	Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.
5.G.A	○	Graph points on the coordinate plane to solve real-world and mathematical problems.
5.G.B	○	Classify two-dimensional figures into categories based on their properties.

HIGHLIGHTS OF MAJOR WORK IN GRADES K–8

K–2	Addition and subtraction – concepts, skills, and problem solving; place value
3–5	Multiplication and division of whole numbers and fractions – concepts, skills, and problem solving
6	Ratios and proportional relationships; early expressions and equations
7	Ratios and proportional relationships; arithmetic of rational numbers
8	Linear algebra and linear functions

REQUIRED FLUENCIES FOR GRADE 5

5.NBT.B.5	Multi-digit multiplication

Sequence of 5th Grade Modules

Summary of the Year:
Grade 5 mathematics is about (1) developing fluency with addition and subtraction of fractions, and developing understanding of the multiplication of fractions and of division of fractions in limited cases (unit fractions divided by whole numbers and whole numbers divided by unit fractions); (2) extending division to two-digit divisors, integrating decimal fractions into the place value system and developing understanding of operations with decimals to hundredths, and developing fluency with whole number and decimal operations; and (3) developing understanding of volume.

Key Areas of Focus for 3-5:
Multiplication and division of whole numbers and fractions—concepts, skills, and problem solving

Required Fluency:
5. NBT.5 Multi-digit multiplication

Module Title	Module Duration	Module Description	CCSS/NJSLSM Overview & Standard
Module 1: Place Value and Decimal Fractions	20 days Sept.-Oct.	Whole number patterns with number disks on the place value chart are easily generalized to decimal numbers. As students work word problems with measurements in the metric system, where the same patterns occur, they begin to appreciate the value and the meaning of decimals. Students apply their work with place value to adding, subtracting, multiplying, and dividing decimal numbers with tenths and hundredths.	*Understand the place value system. (5.NBT.1; 5.NBT.2; 5.NBT.3; 4.NBT.4) **Interim 1- 5.NBT.A.1[*]; 5.NBT.A.2; 5.NBT.A.3; 5.NBT.A.3a-b; 5.NBT.A.4** **Interim 2- 5.NBT.A.1; 5.NBT.A.2; 5.NBT.A.3; 5.NBT.A.3a-b; 5.NBT.A.4** *Perform operations with multi-digit whole numbers and with decimals to hundredths (5.NBT.7) **Interim 1- 5.NBT.B.7[*]** **Interim 2- 5.NBT.B.7[*]** **Interim 3- 5.NBT.B.7[*]** *Convert like measurement units within a given measurement system (5.MD.1) **Interim 2- 5.MD.A.1[*]**
Module 2: Multi-Digit Whole Number and Decimal Fraction Operations	35 days Oct.-Nov.	Using place value patterns and the distributive and associative properties to multiply multi-digit numbers by multiples of 10 and leads to fluency with multi-digit whole number multiplication. Students apply the patterns of the base ten system to mental strategies and the multiplication and division algorithms.	*Write and interpret numerical expressions (5.OA.1; 5.OA.2) **Interim 2- 5.OA.A.1[*]; 5.OA.A.2** *Understand the place value system (5.NBT.1; 5.NBT.2) **Interim 1- 5.NBT.A.1[*]; 5.NBT.A.2** **Interim 2- 5.NBT.A.1; 5.NBT.A.2** *Perform operations with multi-digit whole numbers and with decimals to hundredths

			(5.NBT.5; 5.NBT.6; 5.NBT.7) **Interim 1- 5.NBT.B.5; 5.NBT.B.7*** **Interim 2- 5.NBT.B.5; 5.NBT.B.6; 5.NBT.B.7*** **Interim 3- 5.NBT.B.5; 5.NBT.B.6; 5.NBT.B.7*** *Convert like measurement units within a given measurement system (5.MD.1) **Interim 2- 5.MD.A.1***
Module 3: Addition and Subtraction of Fractions	22 days Dec.	Students' understanding of addition and subtraction of fractions extends from earlier work with fraction equivalence and decimals. This module marks a significant shift away from the elementary grades' centrality of base ten units to the study and use of the full set of fractional units from Grade 5 forward, especially as applied to algebra.	*Use equivalent fractions as a strategy to add and subtract fractions (5.NF.1; 5.NF.2) **Interim 2- 5.NF.A.1; 5.NF.A.2** **Interim 3- 5.NF.A.1; 5.NF.A.2**
Module 4: Multiplication and Division of Fractions and Decimal Fractions	38 days Jan.-Feb.	Students learn to multiply fractions and decimal fractions and begin working with fraction division. Topic A opens the module with an exploration of fractional measurement. Students construct line plots by measuring the same objects using three different rulers accurate to ½, ¼, and 1/8 of an inch. Students compare the line plots and explain how changing the accuracy of the unit of measure affects the distribution of points. This is foundational to the understanding that measurement is inherently imprecise because it is limited by the accuracy of the tool at hand. Students use their knowledge of fraction operations to explore questions that arise from the plotted data. The interpretation of a fraction as division is inherent in this exploration.	*Write and interpret numerical expressions (5.OA.1; 5.OA.2) **Interim 2- 5.OA.A.1***; **5.OA.A.2** *Perform operations with multi-digit whole numbers and with decimals to hundredths (5.NBT.7) **Interim 1- 5.NBT.B.7*** *Apply and extend previous understandings of multiplication and division to multiply and divide fractions (5.NF.3; 5.NF.4; 5.NF.5; 5.NF.6; 5.NF.7) **Interim 3- 5.NF.B.3; 5.NF.B.4; 5.NF.5; 5.NF.B.5a-b; 5.NF.B.6; 5.NF.B.7; 5.NF.B.7a-c** *Convert like measurement units within a given measurement system (5.MD.1) **Interim 2- 5.MD.A.1*** *Represent and interpret data (5.MD.2) **Interim 3- 5.MD.B.2**
Module 5:	25 days	Students work with two- and three-dimensional figures. Volume	*Apply and extend previous understandings of

Addition and Multiplication with Volume and Area	March-Apr.	is introduced to students through concrete exploration of cubic units and culminates with the development of the volume formula for right rectangular prisms. The second half of the module turns to extending students' understanding of two-dimensional figures. Students combine prior knowledge of area with newly acquired knowledge of fraction multiplication to determine the area of rectangular figures with fractional side lengths. They then engage in hands-on construction of two-dimensional shapes, developing a foundation for classifying the shapes by reasoning about their attributes.	multiplication and division to multiply and divide fractions (5.NF.4; 5.NF.6) **Interim 3- 5.NF.B.4; 5.NF.B.6** *Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition (5.MD.3; 5.MD.4; 5.MD.5)** *Classify two-dimensional figures into categories based on their properties (5.G.3; 5.G.4)**
Module 6: Problem Solving with the Coordinate Plane	40 days Apr., May, June	Students develop a coordinate system for the first quadrant of the coordinate plane and use it to solve problems. Students use the familiar number line as an introduction to the idea of a coordinate and construct two perpendicular number lines to create a coordinate system on the plane. They see that just as points on the line can be located by their distance from 0, the plane's coordinate system can be used to locate and plot points using two coordinates. They then use the coordinate system to explore relationships between points, ordered pairs, patterns, lines and, more abstractly, the rules that generate them. This study culminates in an exploration of the coordinate plane in real-world applications.	*Write and interpret numerical expressions (5.OA.2) **Interim 2- 5.OA.A.2** *Analyze patterns and relationships (5.OA.3)** *Graph points on the coordinate plane to solve real-world and mathematical problems (5.G.1; 5.G.2)**

Standard Restrictions

Interim 1
*5.NBT.A in IA 1 will be assessed through a constructed response item
*5.NBT.B.7 in IA 1 is restricted to addition and subtraction of decimals

Interim 2
*5.MD.A.1 in IA 2 will not assess converting a fractional unit by a fractional conversion rate
*5.NBT.B.7 in IA 2 is restricted to reviewing addition and subtraction of decimals
*5.OA.A.1 in IA 2 is restricted to solving expressions with whole numbers

Interim 3
*5.NBT.B.7 in IA 3 will assess multiplication and division of decimals

**STANDARDS NOT IDENTIFIED AS BEING COVERED ON INTERIM 1, 2 OR 3 STILL NEED TO BE TAUGHT AND WILL APPEAR ON PARCC.