

Math Standards Scope & Sequence: Common Core Aligned

Kindergarten

First Grade

Second Grade

Numbers & Operations in Base 10 (NBT)

Counting	<ul style="list-style-type: none"> Rote count to 100, start @ any number Count by 10's, Object count to 20, <i>Count back from 10</i> 	<ul style="list-style-type: none"> Rote Count to 120 Id 1 less/greater 	<ul style="list-style-type: none"> Count by 10, 100, 1000; Place value, Expanded form, Compose in 10's, 1's, 100's Compare / Order to 1000; Count/Group by 1's forward/backwards, 2's, 5's, 10's
Writing & Representing	<ul style="list-style-type: none"> Read numbers to 20, Write numbers to 20, Order/Compare 0-10, Decompose to 19 incl. base 10 	<ul style="list-style-type: none"> Read Numbers to 120, Model to 99 in base 10 (group in 1's & 10's), Order / Compare to 120 	<ul style="list-style-type: none"> Read Numbers to 1000, Place on Number Line to 31
Addition & Subtraction of Whole Numbers	<ul style="list-style-type: none"> +/- to 10 	<ul style="list-style-type: none"> Recall +/- to 10, Model +/-, Compose /, +/- to 100 (2dig by 1 dig with regrouping), +/- with 3 addends, +/- 10 and multiples of 10 to any number 	<ul style="list-style-type: none"> Recall +/- to 20, +/- 2dx2d to 100 with 4 addends <i>including estimating</i>, Metal Math & Word Problems, represent +/- on number line, +/- multiples of 10, 100 mentally and in writing with regrouping

Operations & Algebraic Thinking (OA)

Word Problems	<ul style="list-style-type: none"> Solve +/- problems with models, Describe an +/- Situation 	<ul style="list-style-type: none"> Solve +/- problems to 20 with 3 addends, Number Patterns 	<ul style="list-style-type: none"> +/- 2-step problems to 100. Extend & Rule for + Pattern
Number Sentences		<ul style="list-style-type: none"> +/- sentences with unknown in all positions 	<ul style="list-style-type: none"> Solve +/- equations with unknown in all positions, Odd/Even as sum/doubles Addition array up to 5x5
Patterns	<ul style="list-style-type: none"> <i>ID, copy patterns</i> 	<ul style="list-style-type: none"> <i>Recognize number patterns</i> 	<ul style="list-style-type: none"> <i>Recognize, expand number patterns</i>

Blue is language removed from standards but still used to develop concepts

Math Standards Scope & Sequence: Common Core Transition

Third Grade

Fourth Grade

Fifth Grade

Numbers & Operations in Base 10 (NBT)

Whole Numbers	<ul style="list-style-type: none"> Read, write, compare, order, round to 10 & 100, <i>1,000, 10,000</i> 	<ul style="list-style-type: none"> Place value and relation to \times/\div & comparing values, Round any number 	<ul style="list-style-type: none"> Relative place value (value of '2' in 723 vs 7,230), Powers of 10, Decimal place value, Rounding Decimals,
Addition & Subtraction of Whole Numbers	<ul style="list-style-type: none"> Estimate, Fluently & accurately \pm to 1000 	<ul style="list-style-type: none"> Fluently & accurately \pm with standard algorithm 	
Multiplication & Division of Whole Numbers	<ul style="list-style-type: none"> Word Problems & fluency with \times/\div facts with strategies to 100; Recall all single digit multiplication facts, Multiply 1dig by multiples of 10 (to 90) 	<ul style="list-style-type: none"> 2dx2d & 1dx4d with models; 4d\div1d with models, <i>Mentally solve 2d x 1d and simple division</i> 	<ul style="list-style-type: none"> Multiply with standard algorithm (4d x 2d), Divide with models, $\pm/\times/\div$ decimals with models

Numbers & Operations – Fractions (NF)

Fractions & Decimals Concepts	<ul style="list-style-type: none"> Represent (partitions/equal areas), Fraction number lines, Compare & order, Equivalent fractions, Whole numbers as fractions 	<ul style="list-style-type: none"> Explain $a/b=(nxa)/(nxb)$ & a/b as sum of $1/b$ with model, Fractions: compare, compose, represent, equivalence, $a/10=?/100$; Decimals: compare, <i>round</i>, represent, fraction equivalence 	<ul style="list-style-type: none"> Fraction as division, multiplying fractions as scaling, Common Denominator
Fractions & Decimals Operations		<ul style="list-style-type: none"> \pm Computation and word problems involving fractions and mixed numbers with same denominators, Multiplication computation and word problems involving a whole number times a fraction. 	<ul style="list-style-type: none"> \pm Calculation and word problems incl. mixed numbers, fractions with unlike denominators, decimals; \times/\div computation, models and word problems with fractions

Operations & Algebraic Thinking (OA)

Concepts, Representations	<ul style="list-style-type: none"> Representing groups, arrays, shares with \times/\div, Properties of \times/\div, Division as unknown factor 	<ul style="list-style-type: none"> $5 \times 7 = 35$ as 35 is 7 times as many as 5, Factor pairs to 100 	
Patterns & Rules	<ul style="list-style-type: none"> ID patterns in addition and multiplication tables 	<ul style="list-style-type: none"> Generate a number or shape pattern and describe the rule, 	<ul style="list-style-type: none"> Describe, write, create a rule for a numeric pattern; Graph ordered pairs as two related patterns
Word Problems & Number Sentences	<ul style="list-style-type: none"> Solving \times/\div word problems, Two-step word problems with all four operations, Represent with equations with a letter variable 	<ul style="list-style-type: none"> Solving \times/\div comparison word problems w/ drawings and equations with symbolic representation ($3 \times d = 15$, comparison bars), Whole number problems with remainders, Mental computation and estimations 	<ul style="list-style-type: none"> Write & evaluate an algebraic expression (PEMDAS), Substitution to solve & verify solutions

Math Standards Scope & Sequence: Common Core Transition

Kindergarten

First Grade

Second Grade

Measurement & Data (MD)

Measurement	<ul style="list-style-type: none"> Compare objects by measureable attribute, Describe measureable attributes 	<ul style="list-style-type: none"> Measure with multiples of an object & <i>non-standard units</i> <i>Days, Months, Calendar;</i> Compare Length, Time to half hour (analog/digital) 	<ul style="list-style-type: none"> Money problems with dollars & coins, Estimate & measure length customary and metric with two different units, How much longer, +/- length, Time to nearest 5 minutes, <i>Relative size of units</i>
Display & Interpret Data		<ul style="list-style-type: none"> Comparison questions for tallies, tables, picture graphs, bar graphs 	<ul style="list-style-type: none"> Collect, organize, represent, interpret and compare (+/-) data with bar & picture graphs, Generate measurement data to nearest whole unit

Geometry (G)

2 & 3 Dimensional Objects	<ul style="list-style-type: none"> ID basic 2d & 3d Shapes, Sort Shapes, Location, Compare shapes by attributes, Model real world items with shapes 	<ul style="list-style-type: none"> 2d & 3d Shapes: combine & compare attributes / sort; partition shapes into halves, fourths, quarters 	<ul style="list-style-type: none"> Recognize and draw 2d & 3d shapes Partition shapes into halves, fourths, quarters, thirds etc.; Partition rectangles in rows and columns to total area
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Third Grade

Fourth Grade

Fifth Grade

Measurement & Data (MD)

Measurement	<ul style="list-style-type: none"> Time to minute, Time intervals (calculate/word problems), <i>Temperature</i>, Mass, Weight, Liquid volume, using grams, kilograms & liters 1-step measurement problems 	<ul style="list-style-type: none"> Unit relative size, Measurement word problems with all 4 operations, Angle measurement, 	<ul style="list-style-type: none"> Conversion of measurements within system (cm->m),
Display & Interpret Data	<ul style="list-style-type: none"> Construct & Analyze (comparison problems) Scaled pictographs & bar graphs, <i>Frequency Tables</i>, line plots Measurement Data to quarter inch 	<ul style="list-style-type: none"> Construct & Analyze Line Plots, 	<ul style="list-style-type: none"> Construct & interpret line plots with fractions
Geometric Measurement	<ul style="list-style-type: none"> Area and area word problems and approximation, arrays, Perimeter 	<ul style="list-style-type: none"> Perimeter/Area Formula for Rectangles. 	<ul style="list-style-type: none"> Solid figure volume of shapes composed of rectangular prisms.

Geometry (G)

2 & 3 Dimensional Objects	<ul style="list-style-type: none"> ID & Draw: regular and irregular quadrilaterals, shape attributes 	<ul style="list-style-type: none"> Points, lines, angles in isolation and 2D figures, Classify 2D figures, Symmetry, <i>Congruence</i> 	<ul style="list-style-type: none"> Coordinate pairs, First quadrant graphs, Classify 2D figures,
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Mathematical Practices (MP): *The following mathematical processes is part of the daily authentic practice of math and should permeate instruction across the disciplines as related to:*

- Mathematical and Scientific Discourse. Math Talk Routines, Scientific Collaboration and Inquiry as well as social studies analysis rely on mathematical practices.
 - STEM. Making connections across technical fields from research to inquiry to design requires mathematical practices.
 - Gradual Release of Control beyond literacy. These are part of the shifting of cognitive demand from teacher to student
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1. Make sense of problems, persevere,
 2. Reason abstractly and quantitatively,
 3. Construct viable arguments and critique the reasoning of others,
 4. Model with mathematics,
 5. Use appropriate tools strategically,
 6. Attend to precision,
 7. Look for and make use of structure,
 8. Look for and express regularity in repeated reasoning.