

Mathematics Curriculum

K-6

Kindergarten:

- Use basic patterning skills (A.1 and F.3)
- Communicate math ideas using words, numbers, symbols, and graphs (A.2)
- Use vocabulary related to addition, subtraction, money, time, fractions, and geometry (A.4)
- Use concrete materials, drawings, and numbers to explain solutions to problems (A.5)
- Count things in a set by grouping by 2's and 5's, adding and subtracting, and combining and arranging (B.2)
- Read, write and order whole numbers and money (B.3)
- Name and represent fractions for wholes and halves (B.4)
- Explore a calculator and basic facts of addition and subtraction to solve problems involving whole numbers (B.5A)
- Name, sort, and classify common two-dimensional figures (C.1A)
- Recognize measurable attributes for length, weight, liquid capacity, time, and money (D.1)
- Solve problems using measurement and estimation (D.2)
- Read an analog and digital clock and tell time to the hour (D.3B)
- Use concrete materials to measure (D.4)
- Collect, organize and draw conclusions based on data in context of real-world situations (E.1)
- Explore and use bar graphs, pictographs, and tables and charts (E.3)
- Use probability in familiar day-to-day situations (E.4B)
- Use simple equations and inequalities (F.5)
- Recognize and use the properties of addition and subtraction (F.6)
- Read and write the numbers through 99 (G.1)
- Order numbers through 99 (G.2)
- Use a number line (G.4)

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Grade 1:

- Use patterning skills (A.1 and F.3)
- Communicate math ideas using words, numbers, symbols, graphs, and models (A.2)
- Use math in other curriculum areas (A.3)
- Use vocabulary related to addition, subtraction, money, time, fractions, and geometry (A.4)
- Use concrete materials, drawings, and numbers to explain solutions to problems (A.5)
- Use appropriate symbols to express order relationships with whole numbers, fractions, and money (B.1B)
- Count things in a set by grouping by 2's and 5's, adding and subtracting, and combining and arranging (B.2)
- Read, write and order whole numbers, money, and simple fractions (B.3)
- Name and represent fractions for wholes, halves, fourths, and as a decimal (B.4)
- Use recall of basic addition and subtraction facts, mental math, estimation, and a calculator for appropriate computational procedures involving whole numbers (B.5A)
- Add and subtract decimals when using money (B.7)
- Name, sort, and classify common two-dimensional figures (C.1A)
- Name, sort, and classify more complex 3 dimensional figures (C.1B)
- Use concrete materials and drawings to identify the properties of symmetry, similarity, and congruency in transformational geometry (C.2)
- Use simple 2-D coordinate systems on a grid or a map (C.4)
- Recognize measurable attributes for length, weight, liquid capacity, time, and money (D.1)
- Use appropriate arbitrary and standard units of measurement (D.2)
- Use and read a ruler (D.3A)
- Read an analog and digital clock and tell time to the hour, half hour, quarter hour, minute, and second (D.3)
- Use concrete materials to measure (D.4)
- Determine measurements by using basic relationships and by estimating English measure; capacity-cups, pints, quarts, gallons (D.5B)
- Collect, organize and draw conclusions based on data in context of real-world situations (E.1)
- Explore and use bar graphs, line graphs, circle graphs, pictographs, and tables and charts (E.3)
- Apply probability in familiar day-to-day situations (E.4B)
- Use expressions, letters, boxes or other symbols to stand for any number or measured quantity (F.1)
- Recognize how a change in one quantity can produce a change in another (F.4)
- Use simple equations and inequalities (F.5)
- Recognize and use the properties of addition and subtraction, commutative property and associative property (F.6)
- Read and write the standard numbers through 999 (G.1)
- Order numbers through 999 (G.2)
- Name, convert, and round the value of any digit (G.3)
- Use a number line by ordering numbers and by counting units between points on a number line (G.4)

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Grade 2:

- Use math vocabulary for estimation(A.2)
- Use vocabulary and symbols to relate to multiplication/division (A.4)
- Show and explain whole number, common fractions, mixed numbers, integers, decimals, percent, and scientific notation(B1.4)
- Use greater than and less than for decimals(B.1B)
- Determine multiplication/division and estimation by using sets.(B.2)
- Read, write and order simple fractions and decimals (B.3)
- Identify and write fractions smaller than fourths. (B.4)
- Recall basic multiplication/ division facts, applying addition/subtraction algorithms and using calculator if necessary(B.5A)
- Name three-dimensional figures by sorting, building using figure properties also how they relate to the environment(C.1B)
- Use appropriate measurement for liquid capacity, volume and angle size(D.1)
- Understand terms using measurement (D.2)
- Use measuring instrument to compute yard and mile(D.3A)
- Use a thermometer contrasting Fahrenheit to Celsius degrees(D.3C)
- Measure and estimate perimeter and area(D.5A)
- Measure and estimate capacity and weight using English measure (D.5B)
- Measure and estimate liter using Metric capacity(D.5C)
- Arrange data into high and low values and range(E.2)
- Demonstrate an understanding of probability(E.4A)
- Apply probability to familiar situations (E.4B)
- Formulate questions, use facts, write and solve equations that reflects a change in variability(F.4)
- Read and write standard numbers to a million.(G.1)
- Sequence and order by place value of numbers to one million (G.2)
- Round numbers to a specific value(G.3)
- Translate and write Roman numerals up to two thousand(G.5)

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Grade 3:

- Use vocabulary, symbols and notation related to multiplication/division(A.4)
- Order and express greater and less than symbols for decimals(B.1B)
- Use sets to group and count using multiplication/division(B.2)
- Read, write and order commonly used decimals(B.3)
- Select and apply algorithms for addition/subtraction and multiplication/division(B5.A)
- Use a calculator in problem-solving(B.5A)
- Add/subtract fractions with like denominators(B.6.A)
- Multiply/divide decimals involving money(B.7)
- Name, classify, build and identify properties of three-dimensional figures(C.1B)
- Describe geometric figures in relation to position and how they intersect(C.3)
- Use appropriate units to measure liquid capacity, volume and angle size(D.1)
- Read and interpret a ruler using millimeter and kilometer(D.3A)
- Estimate and measure perimeter and area(D.5A)
- Measure and estimate, in Metric terms, capacity and weight(D.5C)
- Predict outcomes using a tree diagram(E.5)
- Use symbols or letters to stand for any number that expresses multiplication/division in a mathematical sentence(F.1)
- Collect and contrast data used, in a variable relationship, to identify facts and answer questions(F.4)
- Use formulas to solve problems(F.5)
- Identify commutative, identity and associative properties for multiplication(F.6)
- Read and write standard numbers through millions(G.1)
- Order numbers by place value through millions(G.2)
- Read and write Roman numerals and numerals in expanded form(G.5)

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Grade 4:

- Communicate mathematical ideas by simplifying information(A.2)
- Use vocabulary, symbols and notation appropriate to division(A.4)
- Order decimals by greater and less than using symbols(B.1B)
- Apply ratio and proportions to problem solving situations(B.5B)
- Add and subtract fractions using unlike denominator, mixed numbers and improper fractions(B.6A)
- Multiply and divide decimals(B.7)
- Multiply and divide fractions with like denominators(B.6B)
- Use number-theory to model; divisibility, greatest common factors and least common multiples(B.6C)
- Name, classify, build and identify properties of three-dimensional figures(C.1B)
- Describe geometric figures in relation to position and how they intersect(C.3)
- Use appropriate units to measure liquid capacity, volume and angle size(D.1)
- Convert standard measurement units in length, time, mass, temperature, volume, and money(D.2)
- Read and interpret a ruler using millimeter and kilometer(D.3A)
- Estimate and measure perimeter and area(D.5A)
- Measure and estimate, in Metric terms, capacity and weight (D.5C)
- Average a set of numbers from data collected(E.2)
- Predict outcomes using a tree diagram(E.5)
- Use symbols or letters to stand for any number that expresses multiplication/division in a mathematical sentence(F.1)
- Accurately use algebra to develop addition/subtraction problems(F.2)
- Collect and contrast data used, in a variable relationship, to identify facts and answer questions(F.4)
- Identify commutative, identity and associative properties for multiplication(F.6)
- Read and write standard numbers through the billions(G.1)
- Order numbers through billions according to place value(G.2)
- Express place value in other forms(G.3)
- Read and write Roman numerals and numerals in expanded form(G.5)

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Grade 5:

- Communicate mathematical ideas by simplifying information(A.2)
- Identify fractions as a percent(B.4)
- Use ratio, proportions and percent in problem solving(B.5B)
- Multiply and divide fractions with unlike denominators, mixed numbers and improper fractions(B.6B)
- Use number-theory to model; divisibility, prime and composite numbers, greatest common factors and least common multiples(B.6C)
- Name, classify, build and identify properties of three-dimensional figures(C.1B)
- Describe geometric figures in relation to location, position and point of intersection.(C.3)
- Identify the appropriate units to measure angles(D.1)
- Convert standard measurement units in liquid capacity, mass, volume and angle size(D.2)
- Compute a measurement in millimeter, kilometer and distance using the formula $D=RT$ (D.3A)
- Estimate and measure circumference and radius of a circle(D.5A)
- Measure and estimate, in Metric terms, capacity and weight(D.5C)
- Interpret data using mean, median and mode(E.2)
- Predict outcomes using a tree diagram(E.5)
- Accurately use algebra to develop addition/subtraction and multiplication/division problems(F.2)
- Recognize and use the associative, distributive and inverse property of multiplication(F.6)
- Read and write standard numbers and decimals through trillions(G.1)
- Order numbers according to place value through trillions to include decimals(G.2)
- Read and write Roman numerals, numerals in expanded form and exponential form(G.5)

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Grade 6:

- Use ratio and proportions and percent in problem solving(B.5B)
- Solve problems using number theory with prime and composite numbers, divisibility and remainders(B6.C)
- Build concrete three-dimensional geometric figures, from models and drawings(C.1B)
- Describe and investigate geometric figures and concepts in regard to location(C.4)
- Compute a measurement in millimeter, kilometer and distance using the formula $D=RT$ (D.3A)
- Estimate and measure circumference and radius of a circle(D.5A)
- Measure and estimate, using Metric terms, capacity and weight (D.5C)
- Interpret data using median and mode(E.2)
- Predict outcomes using a tree diagram(E.5)
- Accurately use algebra to develop addition/subtraction and multiplication/division problems(F.2)
- Recognize and use the distributive and inverse property of multiplication(F.6)
- Arrange data to allow numbers to convert to scientific form(G.5)