

4th Grade Math Framework

Not all of the content is emphasized equally in the standards. Some clusters require greater emphasis than the others based on the depth of the ideas, the time that they take to master, and/or their importance to future mathematics or the demands of college and career readiness. In addition, an intense focus on the most critical materials at each grade allows depth in learning which is carried out through the Standards for Mathematical Practice.

The following table identifies the major clusters = ■ , supporting clusters = ■ , and additional clusters = ■ and the order in which they should be covered in the scope of the school year. Major clusters are those requiring more time and emphasis in the classroom. Students should demonstrate mastery in these areas. Resource tools have been identified as well as math vocabulary by trimester. It's essential that students learn the **concepts**, develop **fluency** in that concept, and that students can **apply** the concept in problem solving.

	Domain/Cluster Emphasis	Tools	Vocabulary
1 st Trimester	<p>Operations and Algebraic Thinking</p> <ul style="list-style-type: none"> ■ Use the four operations with whole numbers to solve problems ■ Gain familiarity with factors and multiples ■ Generate and analyze patterns <p>Number and Operations in Base Ten</p> <ul style="list-style-type: none"> ■ Generalize place value understanding for multi-digit whole numbers ■ Use place value understanding and properties of operations to perform multi-digit arithmetic 	<p>number in parenthesis indicates number of lessons</p> <p>EnVision Topics/Lessons: Topics 3-10 (will carry over to 2nd semester)</p> <p>Additional Resources Needed</p> <ul style="list-style-type: none"> • Elementary Share File • Online Resources 	<p>multiplication/multiply, division/divide, addition/add, subtraction/subtract, equations, unknown, remainders, reasonableness, estimation, rounding, factor, multiple, prime, composite, place value, greater than, less than, equal to, compare, round, addend, difference, rectangular arrays, product, quotient</p>
2 nd Trimester	<p>Number and Operations – Fractions</p> <ul style="list-style-type: none"> ■ Extend understanding of fraction equivalence and ordering. ■ Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. ■ Understand decimal notation for fraction, and compare decimal fractions <p>**Ongoing Fact Fluency and Problem Solving</p>	<p>EnVision Topics/Lessons: Topics 11, 12, 13</p> <p>Additional Resources Needed</p> <ul style="list-style-type: none"> • Elementary Share File • Online Resources 	<p>partition, fraction, unit fraction, equivalent, denominator, numerator, joining, separating, decomposing, mixed number, decimals, tenths, hundredths</p>

<p>3rd Trimester</p>	<p>Measurement and Data</p> <ul style="list-style-type: none"> ■ Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit. ■ Represent and interpret data ■ Geometric measurement: understand concepts of angle and measure angles. <p>Geometry</p> <ul style="list-style-type: none"> ■ Draw and identify lines and angles, and classify shapes by properties of their lines and angles <p>**Ongoing Fact Fluency and Problem Solving</p>	<p>EnVision Topics/Lessons: Topics 16, 15, 14</p> <p>Additional Resources Needed</p> <ul style="list-style-type: none"> • Elementary Share File • Online Resources 	<p>measure, metric, customary, convert/conversion, relative size, liquid volume, mass, length, distance, kilometer, meter, centimeter, millimeter, kilogram, gram, liter, milliliter, inch, foot, yard, mile, ounce, pound, cup, pint, quart, gallon, time, hour, minute, second, area, perimeter, data, line plot, ray, angle, intersect, protractor, decomposed</p>
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