Ontario School District

5th Grade Math Roadmap 2013-2014

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 grading period. It's essential that students learn the concepts, develop fluency in that concept, and that students can apply the concept in problem solving.

5th Grade Fact Fluency Standard 5.NBT.5 Multi-digit multiplication and maintain fluency in addition/subtraction/multiplication/division: Math fact fluency is the ability to recall the answers to basic math facts automatically (3 seconds and 90% accuracy is the goal). Fact fluency is defined as "quick recall without the use of tools". Fluent in the Common Core Standards means "fast and accurate". It is important that all students understand the **concepts** of addition and subtraction.

Data Collection Dates	Domains/Clusters	Envisions Topic	Additional Resources	Vocabulary
October 11th CFA's Topics 2, & 3	**Operations and Algebraic Thinking** Write and interpret numerical expressions Analyze patterns and relationships **Number and Operations in Base Ten** Understand the place value system Perform operations with multi-digit whole numbers and with decimals to hundredths	Topic 1 – Numeration (lessons 1-3 and 1-4 only) No CFA Topic 2 – Adding and Subtracting Whole Numbers and Decimals Digging into Operations CCSS – Lessons 4-6 Topic 3 – Multiplying Whole Numbers Digging into Operations CCSS – Lesson 1, 7, 11	5th Grade Moodle Online Resources Other Intervention System: T1: H22, 24, 25, 28, 29 T2:F11, G11, 15, 19, 20, H26, 27, 54, 55, 57, J5, 8 T3: F37, 41, G43, 45, 52, 62, 66-71, J9	T1: Digits, value, standard form, expanded form, word form, equivalent decimals. T2: Commutative Property, Associative Property, compatible numbers, compensation, rounding. T:3 Commutative Property of Multiplication, Associative Property of Multiplication, Identity Property of Multiplication, Zero Property of Multiplication, factors, product, multiple, underestimate, overestimate, exponential notation, exponent, base, standard form, expanded form, squared, cubed, partial products.

November 22nd CFA's Topics 4, & 9	**Number and Operations in Base Ten** ■ Understand the place value system ■ Perform operations with multi-digit whole numbers and with decimals to hundredths	Topic 4 – Dividing by 1-Digit Numbers (cut 4-4) Digging into Operations CCSS – Lessons 2 & 3 Topic 9 – Fractions and Decimals Digging into Fractions CCSS – Lessons 1-6	5th Grade Moodle Online Resources Other Intervention System: T4: G44, 46, 53, 55, 56, 58-61, 63, J12, 35 T9: G64, H1-3, 14, 15, 17-21, 23, 30-35, J37	T4: Dividend, divisor, quotient, remainder, prime number composite number, prime factorization, factor tree, factor pair, divisible. T9: Fraction, mixed number, simplest form, improper fraction, benchmark fraction, equivalent fractions, common factor, greatest common factor.
January 23rd CFA's Topics 10	**Number and Operations in Base Ten** ■ Perform operations with multi-digit whole numbers and with decimals to hundredths **Number and Operations – Fractions** ■ Use equivalent fractions as a strategy to add and subtract fractions ■ Apply and extend previous understandings of multiplication and division to multiply and divide fractions	Topic10 –Adding and Subtracting Fractions and Mixed Numbers Digging into Fractions CCSS – Lessons 7 & 8	5th Grade Moodle Online Resources Other Intervention System: T10: G65, H38, 40, 41, 43, 44, J14	T10: Common multiple, least common multiple, least common denominator.
March 14th CFA's Topic 8 & 12	**Geometry** ■ Graph points on the coordinate plane to solve real-world and mathematical problems ■ Classify two-dimensional figures into categories based on their properties	Topic 8 – Shapes Digging into Geometry CCSS – Lessons 1-3 Topic 12 – Perimeter and Area	5th Grade Moodle Online Resources Other Intervention System: T8: I5-7, 12, 17, 19, J32 T12: I14, 22, 23, 45, 46, 48-51	T8: Line, ray, parallel lines, intersecting lines, perpendicular lines, point, line segment, plane, angle, acute angle, right angle, obtuse angle, straight angle, vertex, protractor, degrees, polygon, regular polygon, triangle, quadrilateral, pentagon, hexagon, octagon, equilateral triangle, isosceles triangle, scalene triangle, right triangle, acute triangle, obtuse triangle, parallelogram, trapezoid, rectangle, rhombus, square, generalization. T12: Meter, centimeter, millimeter, kilometer, perimeter, formula, area, base, height, circle, center, pi, radius, diameter, chord, central angle, circumference.

May 2nd CFA's Topics 13 & 5	**Measurement and Data** ■ Convert like measurement units within a given measurement system ■ Represent and interpret data ■ Geometric measurement: understand concepts of volume and relate volume to multiplications and to addition	Topic 13 – Solids (cut 13-3) Digging into Geometry CCSS – Lessons 4-8 Topic 5 – Dividing by 2-Digit Numbers Digging into Operations CCSS – Lessons 2-3, 8	5th Grade Moodle Online Resources Other Intervention System: T13: I10, 11, 47, 56, J24 T5: G72-77, J1, 4	T13: Solid figure, face, edge, vertex, cube, prism, cylinder, cone, pyramid, net, surface area, volume, cubic unit. T5: No new vocabulary.
June 12th CFA's Topics 18 & 11	**Geometry** ■ Graph points on the coordinate plane to solve real-world and mathematical problems ■ Classify two-dimensional figures into categories based on their properties	Topic 18 – Graphs and Data Digging into Operations CCSS – Lessons 12 & 13 Topic 11- Multiplying Fractions and Mixed Numbers Digging into Fractions CCSS – Lessons 9-12	5th Grade Moodle Online Resources Other Intervention System: T18: I59-61, 64-66, 68, 70-72, J30 T11: H45-47, 50, J11, 12	T18: Survey, data, sample, frequency table, line plot, bar graph, double-bar graph, picture graph, scale, interval, line graph, trend, stem-and-leaf plot, histogram, circle graph, mean, median, mode, range, stem, leaf. T11: Reciprocal.

If time allows, teach these additional topics:

Topics 6, 7, 14, 15, 16, 17, 19 and 20.