Diocese of Bridgeport – Math Standards – Grade 3

DIOCESE OF BRIDGEPORT CATHOLIC SCHOOLS
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BASE TEN VALUE, OPERATIONS, and THEORY

	STANDARD	SKILLS	VOCABULARY
BVOT 3.1	Use understanding and properties of place value to perform multi-digit arithmetic	·Round to the nearest 10 and 100 ·Read and write numbers in word, numeral or standard, and expanded form ·Skip count by 5s, 10s, 100s ·Compare three-digit numbers using >,<, and = ·Represent numbers as groups of thousands, hundreds, tens, and ones ·Identify whether a number is even or odd ·Identify equivalent and non-equivalent values ·Demonstrate equivalence using properties of whole numbers	Ones, tens, hundreds, thousands, place value, digit, numeral, value, read, write, expanded form, numeral form, standard form, word form, whole number, round, estimate
BVOT 3.2	Solve problems involving the four operations	·Estimate to solve problems and check solutions for reasonableness ·Fluently add and subtract within 1000 using strategies and algorithms ·Solve addition and subtraction word problems ·Solve multiplication and division word problems using facts through 12 times tables ·Solve two step word problems (problems posed with whole numbers and whole number answers only) ·Use strategies and procedures and explain how and why they work	Fact families, inverse operations, add, subtract, more less, addend, sum, difference, multiply, product, factors, division, divisor, dividend, quotient, equal, algorithm, array, strategies, number story, word problem, evaluate, solve, times tables, multi-step, whole number, procedure, remainder, bracket, symbol, column, row, model
BVOT 3.2A	Fluently Multiply and Divide within 100	·Mentally compute through 12 times tables ·Multiply one digit numbers by one digit numbers ·Solve division problems using the inverse multiplication fact ·Use arrays to model multiplication	Mental math, inverse operation, fact families, fact triangle, array, times tables, math facts
BVOT 3.2B	Understand the relationships between the four operations	·Relate addition and subtraction to solve problems ·Relate multiplication and division to solve problems ·Relate multiplication and addition to solve problems (repeat addition) ·Understand the associative, commutative, and distributive properties of multiplication	Inverse operations, fact families, factors, multiples, associative property, commutative property, distributive property
BVOT 3.2C	Represent problems involving multiplication and divisions using algebraic symbols	·Use models, equations, and number sentences to represent problems and solutions ·Solve multiplication and division word problems using drawings and equations ·Use a symbol to represent an unknown and solve for it	Equation, model, number sentence, represent, word problems, number stories, unknown, variable, symbol

BVOT 3.3	Draw conclusions about equality and develop an understanding of fractions as numbers	·Relate even numbers and quantities to multiplication and division rules (ex. Even numbers can be put into equal groups) ·Understand fractions with the denominators of 2,3,4,6, and 8 ·Understand that fraction 1/b is the quantity formed by one part of a whole broken in b equal parts ·Understand fractions as numbers on a number line ·Identify and represent fractions with pictures, numbers, and on a number line ·Identify and model mixed numbers ·Identify equivalent and nonequivalent quantities	Even, odd, equal groups, quantities, fraction, numerator, denominator, half, thirds, fourth, fifth, sixth, eighth, tenth, whole, number line, model, mixed number, improper fraction, equal, in equal, partition, rows, columns, simplify, least common multiple, greatest common factor
BVOT 3.3A	Compare two fractions with the same denominator (fractions with the denominators of 2,3,4,6, and 8)	·Use reasoning of size, models, and number lines to compare fractions of the same whole ·Represent comparison of fractions using <,>, = ·Recognize and generate simple equivalent fractions ·Recognize fractions equal to a whole number	Whole, parts, numerator, denominator, compare, greater than, less than, equal to, equivalent fractions, model, number line, generate, recognize
BVOT 3.3B	Identify decimal place value and relate to money	·Identify place value into the hundredths ·Read and write numbers into the hundredths in standard and numerical form ·Compare numbers into the hundredths ·Relate decimals to money	Place value, hundredths, tenths, decimal point, decimal notation, money, cents, whole number
BVOT 3.4	Understand patterns and relationships	·Identify arithmetic patterns including those in the addition and multiplication tables ·Identify patterns related to decimals and money (ex. hundredths and pennies) ·Identify patterns involving even and odd numbers ·Identify patterns relating to multiples and factors ·Analyze change in quality and quantity patterns	Addition, multiplication, multiplication tables, pattern, decimal, money, change in quantity, change in quality

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DATA, MEASUREMENT and MONEY

	STANDARD	SKILLS	VOCABULARY
DMM 3.1	Measure, estimate, and solve problems with length, volume, and mass	·Measure and estimate volume using liters ·Measure and estimate mass of and object using grams and kilograms ·Measure length in centimeters and meters ·Measure length in inches to the nearest half and quarter inch ·Understand feet vs. inches ·Choose most reasonable unit and tool to measure with ·Add, subtract, multiply or divide to solve one step problems involving mass or volume in the same unit ·Use measurement to determine relative size of objects ·Identify and express examples of measurement in daily life	Volume, mass, length, grams, kilograms, liters, centimeters, meters, inches, half inch, quarter inch, foot, kilometers, ruler, meter stick, yard stick, reasonable, unit, express, measure, add, subtract, multiply, divide, mass, volume, gram, kilogram, cup, pint, quart, gallon, temperature, degree, quantity, amount, equivalent, convert, US Customary, Metric
DMM 3.1A	Understand area and solve for the area of a rectangle	·Use the concept of measurement to understand area ·Relate area to multiplication ·Solve for area by counting unit squares (cm, m, in, ft) ·Multiply L X W to solve for the area of a rectangle with sides that measure in whole numbers ·Solve real world problems involving area	Area, formula, length, side, width, height, factors, unit square, quadrilateral
DMM 3.1B	Solve problems involving perimeter of polygons	·Relate perimeter and addition ·Find the perimeter of polygons ·Solve real world problems involving perimeter ·Solve problems given perimeter and all but one side for the missing length ·Find different perimeters for rectangles with the same area	Perimeter, formula, sides, length, width, height, quadrilateral
DMM 3.2	Solve problems involving time	·Estimate time intervals ·Tell time to the nearest minute ·Measure intervals of time ·Solve problems involving adding and subtracting time intervals ·Represent time problems on a number line	Elapsed time, a.m., p.m, O'clock, digital, analog, hours, minutes, quarter of, quarter past, half past, interval, represent, calendar, days, months, years, weeks, number line
DMM 3.2A	Solve problems involving money	·Add and subtract to solve real world problems involving money ·Make change ·Express values orally and in written form ·Recognize, Identify, and trades sets of coins with equal value	Change, cents, dollars, penny, nickel, dime, quarter, dollar, bills, value, exchange

DMM 3.3	Generate, represent, and interpret data	·Draw a picture graph, and bar graph to represent data ·Solve one and two step “how many more” and “how many less” problems using data from graphs ·Generate data by measuring length to the nearest half and quarter inch ·Create line plots to represent data ·Identify examples of data collection use in everyday life ·Pose questions to be answered using a collection of data ·Determine likelihood of events through games, experiments, and surveys	Data, picture graph, table, bar graph, represent, more, less, generate, line plot, data collection, survey, tally, possible, impossible, likely, unlikely, more likely, less likely

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GEOMETRY

	STANDARD	SKILLS	VOCABULARY
G 3.1	Reason with shapes based on categories and attributes	·Identify polygons and non-polygons ·Classify quadrilaterals (rhombus, square, trapezoid, rectangle) ·Classify shapes by common characteristics such as sides and corners ·Identify triangles, pentagons, hexagons, and octagons ·Identify congruent figure regardless of position or orientation	Polygon, quadrilateral, rhombus, rectangle, trapezoid, parallelogram, square, sides, corners, triangle, pentagon, hexagon, octagon, figure, position, equivalent, congruent, parallel, right angle
G 3.1A	Draw shapes based on attributes	·Draw quadrilaterals that don't fall into any subcategories ·Draw polygons and non- polygons ·Draw triangles, pentagons, hexagons, octagons, and quadrilaterals	Attribute, polygon, sides, angles, right angle, parallel sides, congruent, category, sub category
G 3.1B	Partition shapes to create equal areas	·Express equal areas as unit fractions of a whole ·Use terms such as half, fourth, and third to describe partitions	Equal, whole, partition, rows, columns, half, fourth, third, equivalent