UNITS	STANDARDS	OBJECTIVES (What it looks like in the classroom) The learner will	NUMBER OF DAYS TAUGHT	DATE ASSESSED	ASSESSMENT TYPE	RESOURCES (Materials, web sites, auto-visual, print)	LEARNING ACTIVITIES AND VOCABULARY
Number Sense Expressions and Equations	6.1.1.d 6.EE.A.1	Represent large numbers using exponential notation (i.e 10x10x10x10x10) (Review PV chart first) Write and evaluate numerical expressions involving whole number exponents	5 days	August	Place Value, Expressions, and Equations Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 1-1 Place Value Lesson 1-2 Exponents Lesson 1-3 Compare & Order Whole Numbers base, exponent, power, squared, cubed, expanded form, expanded form using exponents, exponential form, negative power of 10, scientific notation
Number Sense	6.1.4.a	Use appropriate estimation methods to check the reasonableness of solutions for problems involving positive rational numbers.	5 days	September & looped through year	Place Value, Expressions, and Equations Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 1-4 Rounding Lesson 1-5 Estimating Sums & Differences Lesson 1-6 Estimating Products & Quotients Lesson 2-4 Rounding Decimals Lesson 2-5 Estimating with Decimals Lesson 3-9 Estimating Fractional Amounts Lesson 4-4 Estimating Sums & Differences of Fractions & Mixed Numbers Lesson 4-8 Exact Answer of Estimate Lesson 5-3 Estimating with Fractions & Mixed Numbers round, estimate, front-end estimate, front end estimate with adjusting, clustering, range, compatible numbers

	YORK PUBLIC S	CHOOIS		Subject Area: Mathematics Course: 6 Grade Math					
UNITS	STANDARDS	OBJECTIVES (What it looks like in the classroom) The learner will	NUMBER OF DAYS TAUGHT	DATE	ASSESSMENT TYPE	RESOURCES (Materials, web sites, auto-visual, print)	LEARNING ACTIVITIES AND VOCABULARY		
Expressions and Equations	6.3.3.b 6.3.3.e	Apply properties of operations to generate equivalent expressions (i.e. distributive property) Evaluate numerical expressions containing multiple operations with respect to order of operations. Identify and explain the properties of equality used in solving one-step equations.	7 days	September & looped through year	Place Value, Expressions, and Equations Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 1-8 Order of Operations – 2 days Lesson 1-9 Properties of Operations Lesson 1-10 Mental Math:		
Expressions and Equations	6.EE.A.2	Write, read and evaluate expressions in which letters stand for numbers	6 days in September Overlapping concepts	September & looped through year	Place Value, Expressions, and Equations Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 1-13 Variables & Expressions Lesson 5-8 Expressions w Fractions Vocabulary: variable, expression, equation, evaluate, inverse operations		
Expressions and Equations	6.EE.A.4	Identify when two expressions are equivalent Reason and solve one- variable expressions and equations	6 days in September Overlapping concepts	September & looped through year	Place Value, Expressions, and Equations Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 1-13 Variables & Expressions Lesson 1-15 Solve Equations w Whole Numbers Lesson 2-12 Solve Equations w Decimals Lesson 5-9 Solve Equations w Fractions Lesson 8-9 Solving Equations w Integers Vocabulary: variable, expression, equation, evaluate, inverse operations		
Expressions and Equations	6.EE.B.5	Understand solving an equation or inequality as a process of answering a questions which values from a specified set, make and equation or inequality true Use substitution to determine whether a given number in a specified set makes and equation or inequality true	6 days in September Overlapping concepts	September & looped through year	Place Value, Expressions, and Equations Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 1-13 Variables & Expressions Lesson 1-14 Properties of Equality Lesson 1-15 Solve Equations w Whole Numbers Lesson 2-12 Solve Equations w Decimals Lesson 5-9 Solve Equations w Fractions Lesson 8-9 Solving Equations w Integers Vocabulary: variable, expression, equation, evaluate, inverse operations		

	TOIR TUDIE	CHOOLS		Subject Area. <u>Mathematics</u> Course. <u>o Grade Math</u>				
UNITS	STANDARDS	OBJECTIVES (What it looks like in the classroom) The learner will	NUMBER OF DAYS TAUGHT	DATE ASSESSED	ASSESSMENT TYPE	RESOURCES (Materials, web sites, auto-visual, print)	LEARNING ACTIVITIES AND VOCABULARY	
Expressions and Equations	6.EE.B.6	Use variables to represent numbers and write expressions when solving a real-world or mathematical problem Understand that a variable can represent an unknown number or any number in a specified set	6 days in September Overlapping concepts	September & looped through year	Place Value, Expressions, and Equations Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 1-13 Variables & Expressions Lesson 2-13 Write an Equation	
	6.3.1.a 6.3.1.b	Describe and create simple algebraic expressions from words and tables. Use a variable to describe a situation with an equation.					Lesson 3-5 Make a Table Vocabulary: variable, expression, equation, evaluate, inverse operations	
Expressions and Equations	6.EE.B.7 6.3.3.c	Reason about and solve one- variable equations and inequalities Evaluate simple algebraic expressions involving multiplication and division.	6 days in September Overlapping concepts	September & looped through year	Place Value, Expressions, and Equations Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 1-13 Variables & Expressions Lesson 1-14 Properties of Equality Lesson 1-15 Solve Equations w Whole Numbers Lesson 2-12 Solve Equations w Decimals Lesson 5-9 Solve Equations w Fractions Lesson 8-9 Solving Equations w Integers Vocabulary: variable, expression, equation,	
Emmagaioss	6.3.3.d	Solve one-step equations involving positive rational numbers Identify and explain the	6 days in	September	Place Value,	Textbooks,	evaluate, inverse operations, rational numbers Lesson 1-14 Properties of Equality	
Expressions and Equations	6.3.3.e	properties of equality used in solving one-step equations. (AP, CP)	September Overlapping concepts	& looped through year	Expressions, and Equations Unit Test	Compass, games & activities, YPS website, iPod carts	Vocabulary: property of equality	

	Y ORK Public S	CHOOIS		Subject Area: <u>Mathematics</u> Course: <u>6 Grade Math</u>					
UNITS	STANDARDS	OBJECTIVES (What it looks like in the classroom) The learner will	NUMBER OF DAYS TAUGHT	DATE ASSESSED	ASSESSMENT TYPE	RESOURCES (Materials, web sites, auto-visual, print)	LEARNING ACTIVITIES AND VOCABULARY		
Number Sense	6.NS.B.3 6.1.2.b	Fluently add, subtract, multiply and divide multi- digit decimals and find common factors and multiples. Use drawings, words, and symbols to explain the meaning of addition and subtractions of decimals.	11 days	October	Decimal Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 2-1 Understanding Decimals Lesson 2-2 Comparing & Ordering Decimals Lesson 2-5 Adding & Subtracting Decimals Lesson 2-6 Multiplying & Dividing Decimals Lesson 2-7 Dividing by a Whole Number Lesson 2-8 Interpreting Remainders		
	6.1.3.a 6.1.3.b	Multiply and divide positive rational numbers. (i.e. fractions and decimals) Select and apply the appropriate method of computation when problem solving.					Vocabulary: decimal, repeating decimal, terminating decimal Lesson 3-12 Multiple Step Problems		
Number Sense	6.NS.B.2	Fluently divide multi-digit numbers.	5 days Overlapping Concept w Decimal Unit	October	Decimal Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 2-6 Multiplying & Dividing Decimals Lesson 2-7 Dividing by a Whole Number Lesson 2-8 Interpreting Remainders Lesson 2-9 Dividing by a Decimal Vocabulary: decimal, repeating decimal, terminating decimal		
Number Sense	6.NS.B.4	Find the greatest common factors \leq 100; and the least common multiples \leq 12	6 days	October	Number Theory & Fraction Concepts Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 3-1 Factors, Multiples & Divisibility Lesson 3-3 Greatest Common Factor Lesson 3-4 Least Common Multiple Vocabulary: factor, multiple, divisible, common factor, common multiple, least common multiple		
Number Sense	6.1.1.e	Identify the prime factorization of numbers.	2 days	October	Number Theory & Fraction Concepts Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 3-2 Prime & Composite Vocabulary: prime number, composite number, prime factorization		

UNITS STANDARDS OBJECTIVES (What it looks like in the classroom) The learner will The learner will STANDARDS OF THE POPULATION OF THE POP					Subject Area. <u>Madiematics</u> Course. <u>o Grade Madi</u>				
The learner will $\frac{1}{2}$ $\frac{1}{2}$ print)	UNITS	S STANDARDS	(What it looks like	NUMBER OF DAYS TAUGHT	DATE	ASSESSMENT TYPE	(Materials, web sites, auto-visual,	ACTIVITIES AND	
Sense Sense		6.1.2.a 6.1.3.a	involving division of fractions by fractions. Use visual fraction models and equations to represent the data. Add, subtract, multiply and divide fractions. Use drawings, words, and symbols to explain the meaning of addition and subtraction of fractions. Multiply and divide positive rational numbers. (i.e. fractions and decimals) Select and apply the appropriate method of computation when		& November &	Theory & Fraction Concept Test (8 days) Adding & Subtracting Fractions Test (10 days) Multiplying & Dividing Fractions Test (14 days) Computation Review (5 days) Ongoing Throughout	Compass, games & activities, YPS website,	Lesson 3-8 Improper Fractions & Mixed Numbers Lesson 3-9 Estimating Fractional Amounts Lesson 3-10 Connecting Fractions & Decimals Lesson 3-11 Comparing & Ordering Fractions & Decimals Lesson 3-11 Comparing & Ordering Fractions & Decimals Lesson 4-1 Add & Subtract Fractions w Like Denominators Lesson 4-2 Add & Subtract Fractions w Unlike Denominators Lesson 4-5 Adding Mixed Numbers Lesson 4-6 Subtracting Mixed Numbers Lesson 5-1 Multiplying a Fraction & a Whole Number Lesson 5-2 Multiplying Fractions Lesson 5-4 Multiplying Mixed Numbers Lesson 5-6 Dividing Fractions Lesson 5-7 Dividing Mixed Numbers Lesson 4-3 Look for a Pattern Lesson 4-8 Choose a Computation Method Lesson 8-4 Choose an Operation Vocabulary: fraction, benchmark fraction, numerator, denominator, equivalent fraction, common denominator, least common denominator, like denominator, unlike denominator, mixed number, simplest	

	Y ORK Public S	CHOOIS		Subject Area: <u>Mathematics</u> Course: <u>6 Grade Math</u>				
UNITS	STANDARDS	OBJECTIVES (What it looks like in the classroom) The learner will	NUMBER OF DAYS TAUGHT	DATE ASSESSED	ASSESSMENT TYPE	RESOURCES (Materials, web sites, auto-visual, print)	LEARNING ACTIVITIES AND VOCABULARY	
Number Sense	6.NS.C.5 6.1.1.b 6.NS.C.7 (supporting)	Understand that positive and negative numbers are used together to describe quantities having opposite directions or values i.e. temperature, above/below zero, elevation, debits/credits Compare and order positive and negative integers Understand ordering and absolute value of rational numbers	7 days	January	Integer Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 8-1 Understanding Integers Lesson 8-2 Comparing & Ordering Integers Lesson 8-3 Understanding Rational Numbers Lesson 8-5 Adding Integers (supporting) Lesson 8-6 Subtracting Integers (supporting) Lesson 8-7 Multiplying Integers (supporting) Lesson 8-8 Dividing Integers (supporting) Vocabulary: whole number, natural number, integer, opposites, integers, absolute value, rational number Lesson 3-11 Comparing & Ordering Fractions & Decimals	
Number Sense	6.NS.C.6 6.2.2.a 6.NS.C.8 (supporting)	Understand signs of numbers as ordered pairs indicating locations in quadrants of the coordinate planes. Find and position pairs of integers on a coordinate plane Identify the ordered pair of a plotted point in the coordinate plane Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane.	8 days	January	Graphing in the Coordinate Plane Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	(Supporting) Lesson 8-11 Graphing Ordered Pairs Lesson 8-12 Patterns & Tables Lesson 8-13 Graphing Equations Vocabulary: coordinate plane, ordered pair, origin, quadrant, x-axis, y-axis, coordinate, relation, function, linear equation	
Geometry	6.2.5.d	Determine the perimeter of polygons.	5 days Overlapping Concepts	January	Perimeter, Circumference & Area Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 10-7 Perimeter Lesson 10-9 Relating Area & Perimeter Vocabulary: perimeter, area, base, height, circumference, diameter, radius	

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UNITS	STANDARDS	OBJECTIVES (What it looks like in the classroom) The learner will	NUMBER OF DAYS TAUGHT	DATE ASSESSED	ASSESSMENT TYPE	RESOURCES (Materials, web sites, auto-visual, print)	LEARNING ACTIVITIES AND VOCABULARY		
Expressions and Equations	6.EE.C.9 (Supporting) 6.3.1.b	Use variables to represent two quantities in a real- world problem that change in relationship to one another Use a variable to describe a situation with an equation (formulas i.e. area, volume, distance)	5 days Overlapping Concepts	January & February	Geometry Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 10-7 Perimeter Lesson 10-8 Area of Squares & Rectangles Lesson 10-9 Relating Area & Perimeter Lesson 10-10 Area of Parallelograms & Triangles Lesson 10-11 Circumference Lesson 10-12 Area of a Circle Vocabulary: perimeter, area, base, height, circumference, diameter, radius		
Geometry	6.G.A.1 6.2.5.e	Find the area of right triangles, other triangles, special quadrilaterals, and polygons by composing into rectangles or decomposing into triangles and other shapes Determine the area of parallelograms and triangles	5 days	February	Geometry Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 10-8 Area of Squares & Rectangles Lesson 10-9 Relating Area & Perimeter Lesson 10-10 Area of Parallelograms & Triangles Vocabulary: area, base, height, circumference, diameter, radius		
Geometry	6.G.A.4 6.2.4.a	Represent three-dimensional figures using nets made up of rectangles and triangles, and use the nets to find surface area of these figures. Identify two-dimensional drawings of three-dimensional objects	5 days	February	Geometry Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 10-14 Solid Figures Lesson 10-15 Surface Area Vocabulary: polygon, net, prism, polyhedron, pyramid, sphere, cone, cylinder, cubic units, surface area		

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UNITS	STANDARDS	OBJECTIVES (What it looks like in the classroom) The learner will	NUMBER OF DAYS TAUGHT	DATE ASSESSED	ASSESSMENT TYPE	RESOURCES (Materials, web sites, auto-visual, print)	LEARNING ACTIVITIES AND VOCABULARY	
Geometry	6.G.A.2 6.2.5.f	Find the volume of a right it with unit cubes to show that the volume is the same as would be found by multiplying the edge lengths of the prisms. Apply the formulas V = lwh and V= bh to find volumes of rectangular prisms. Determine the volume of rectangular prisms	3 days	February	Geometry Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 10-16 Volume Vocabulary: cubic units	
Geometry	6.G.A.3	Solve real-world and mathematical problems involving area, surface-area, and volume. Draw polygons in the coordinate plane given coordinates for the vertices.	5 days Overlapping Concepts	February	Geometry Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 10-8 Area of Squares & Rectangles Lesson 10-10 Area of Parallelograms & Triangles Lesson 10-15 Surface Area Lesson 10-16 Volume Vocabulary: polygon, net, prism, polyhedron, pyramid, sphere, cone, cylinder, cubic units	
Statistics and Probability	6.SP.A.1	Recognize a statistical question as one that anticipates variability in the data related to the question.	1 day	March	Data, Graphs and Probability Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 11-1 Samples & Surveys Vocabulary: event, outcome, sample space, data, statistics	
Statistics and Probability	6.SP.B.5 6.4.1.c	Summarize numerical data sets in relation to their context, such as by: mean, median, mode, range. Find the mean, median, mode, and range for a set of data.	3 days	February	Data, Graphs and Probability Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 11-2 Mean, Median, Mode & Range Vocabulary: average, mean, median, mode, range, minimum, maximum	
Statistics and Probability	6.SP.A.3	Recognize that a measure of center for a numerical data set summarizes all of its values with a single number, while a measure of variation describes how its value varies from a single number.	3 days Overlapping Concept	February	Data, Graphs and Probability Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 11-2 Mean, Median, Mode & Range Vocabulary: average, mean, median, mode, range, minimum, maximum	

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UNITS	STANDARDS	OBJECTIVES (What it looks like in the classroom) The learner will	NUMBER OF DAYS TAUGHT	DATE	ASSESSMENT TYPE	RESOURCES (Materials, web sites, auto-visual, print)	LEARNING ACTIVITIES AND VOCABULARY
Statistics and Probability	6.SP.A.2 6.4.1.b	Understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape. Compare and interpret data sets and their graphical representations.	6 days	March	Data, Graphs and Probability Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 11-3 Frequency Tables & Line Plots Lesson 11-4 Stem & Leaf Plots Lesson 11-5 Bar Graphs Lesson 11-6 Line Graphs L-J weekly graphing Vocabulary: data intervals, outliers, stem & leaf plots, line graphs, frequency table, trend
Statistics and Probability	6.SP.B.4 6.3.2.a	Display numerical data in plots on a number line, including dot plots, histograms, and box plots. Model contextualized problems using various representations	6 days	March	Data, Graphs and Probability Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 11-5 Bar Graphs Lesson 11-6 Line Graphs L-J weekly graphing Lesson 11-7 Circle Graphs Lesson 11-9 Misleading Graphs Vocabulary: data intervals, outliers, line graphs, frequency table, circle graph, double bar graph, double line graph, trend
Statistics and Probability	6.4.3.b	Compute theoretical probabilities for independent events.	8 days	March	Data, Graphs and Probability Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 11-10 Counting Methods Lesson 11-11 Permutations & Combinations Lesson 11-12 Probability Lesson 11-13 Predictions Probability Vocabulary: probability, theoretical probability, experimental probability, impossible event, certain event
Statistics and Probability	6.4.3.c	Find experimental probability for independent events.	8 days Overlapping Concept	March	Data, Graphs and Probability Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 11-10 Counting Methods Lesson 11-11 Permutations & Combinations Lesson 11-12 Probability Lesson 11-13 Predictions Probability Vocabulary: probability, theoretical probability, experimental probability impossible event, certain event
Ratios and Proportional Relationships/ Functions	6.RP.A.1	Understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.	3 days	April	Ratio & Proportion Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 6-1 Understanding Ratios Lesson 6-2 Equal Ratios Vocabulary: ratio

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Ratios and Proportional Relationships/ Functions	6.RP.A.2	Understand the concept of a unit rate a/b associated with a ratio a:b with b ≠ 0, and use rate language in the context of a ratio relationship. Expectations for unit rates in this grade are limited to	4 days	April	Ratio & Proportion Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 6-3 Rates & Unit Rates Vocabulary: ratio, rate, unit rate		
Ratios and Proportional Relationships/ Functions	6.RP.A.3	non-complex fractions. Understand ratio concepts and use ratio reasoning to solve problems. Make tables of equivalent ratios relating quantities with whole number measurements. Solve unit rate problems including those involving unit pricing and constant speed. Find percent of a quantity as a rate per 100. Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities.	9 days 10 days	April April & May	Ratio & Proportion Test	Textbooks, Compass, games & activities, YPS website, iPod carts	Lesson 6-5 Understanding Proportions Lesson 6-6 Solving Proportions Lesson 6-7 Solving Proportions Using Cross Products Lesson 6-9 Using Formulas Lesson 6-10 Scale Drawings & Maps Vocabulary: proportion, cross products, formula, scale drawing, scale Lesson 7-1 Understanding Percent Lesson 7-2 Fractions, Decimals & Percents Lesson 7-6 Find Percent of a Number Lesson 7-9 Percent Sales Tax & Discount Lesson 7-10 Simple Interest Vocabulary: percent, discount, principal, interest, simple interest		

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UNITS	STANDARDS	OBJECTIVES (What it looks like in the classroom) The learner will	NUMBER OF DAYS TAUGHT	DATE ASSESSED	ASSESSMENT TYPE	RESOURCES (Materials, web sites, auto-visual, print)	LEARNING ACTIVITIES AND VOCABULARY
Expressions and Equations	6.EE.B.8	Write an in inequality in the form x > c or x < c to represent a constraint or condition in a real-world or mathematical problem Recognize that inequalities have infinitely many solutions Represent solutions of such inequalities on number line diagrams	7 days	May	Expressions and Equations Unit Test	Textbooks, Compass, games & activities, YPS website, iPod carts	12-1 Graphing Inequalities 12-2 Solving Inequalities Vocabulary: inequality, inverse operations, properties of inequality, Addition Property of Inequality, Subtraction Property of Inequality, Multiplication Property of Inequality, Division Property of Inequality, Division Property of Inequality, linear equation