

Grade 7 Curriculum Map
Revised September 2009

Performance Indicator Code	Performance Indicator	Instructional Period
7N1	Distinguish between the various subsets of real numbers (counting/natural numbers, whole numbers, integers, rational numbers, and irrational numbers)	September - October
7N2	Recognize the difference between rational and irrational numbers (e.g. explore different ap	
7N3	Place rational and irrational numbers (approximations) on a number line and justify the placement of the numbers	
7N4	Develop the laws of exponents for multiplication and division	
7N5	Write numbers in scientific notation	
7N6	Translate numbers from scientific notation into standard form	
7N7	Compare numbers written in scientific notation	
7N8	Find the common factors and greatest common factor of two or more numbers	
7N9	Determine multiples and least common multiple of two or more numbers	
7N10	Determine the prime factorization of a given number and write in exponential form	
7N11	Simplify expressions using order of operations. Note: Expressions may include absolute value and/or integral exponents greater than 0	
7N12	Add, subtract, multiply and divide integers	
7N13	Add and subtract two integers (with and without the use of a number line)	
7N14	Develop a conceptual understanding of negative and zero exponents with a base of ten and relate to fractions and decimals (e.g. $10^{-2} = .01 = 1/100$)	
7N15	Recognize and state the value of the square root of a perfect square (up to 225)	
7N16	Determine the square root of non-perfect squares using a calculator	
7N17	Classify irrational numbers as non-repeating/non-terminating decimals	
7N18	Identify the two consecutive whole numbers between which the square root of a non-perfect square whole number less than 225 lies (with and without the use of a calculator)	
7N19	Justify the reasonableness of answers using estimation	

*Indicates Post March from previous year

**Indicates May-June from previous year

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Performance Indicator Code	Performance Indicator	Instructional Period
7A1	Translate two-step verbal expressions into algebraic expressions	November - December
7A2	Add and subtract monomials with exponents of one	
7A3	Identify a polynomial as an algebraic expression containing one or more terms	
7A4	Solve multi-step equations by combining like terms, using the distributive property, or moving variables to one side of the equation	
7A5	Solve one-step inequalities (positive coefficients only)	
7A6	Evaluate formulas for given input values (surface area, rate and density problems)	
7G10	Graph the solution set of an inequality (positive coefficients only) on a number line	
6A2*	Use substitution to evaluate algebraic expressions (may include exponents of one, two and three)	
6A3*	Translate two-step verbal sentences into algebraic equations	
6A4*	Solve and explain two-step equations involving whole numbers using inverse operations	
6A5*	Solve simple proportions within context	

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Performance Indicator Code	Performance Indicator	Instructional Period
7G1	Calculate the radius or diameter, given the circumference or area of a circle	January
7G2	Calculate the volume of prisms and cylinders, using a given formula and a calculator	
7G3	Identify the two-dimensional shapes that make up the faces and bases of three-dimensional shapes (prisms, cylinders, cones and pyramids)	
7G4	Determine the surface area of prisms and cylinders, using a calculator and a variety of methods	
7G5	Identify the right angle, hypotenuse, and legs of a right triangle	
7G6	Explore the relationship between the lengths of the three sides of a right triangle to develop the Pythagorean Theorem	
7G7	Find a missing angle when given angles of a quadrilateral	
7G8	Use the Pythagorean Theorem to determine the unknown length of a side of a right triangle	
7G9	Determine whether a given triangle is a right triangle by applying the Pythagorean Theorem and using a calculator	
7M11	Estimate surface area	
6G10*	Identify and plot points in all four quadrants	
6G11*	Calculate the area of basic polygons drawn on a coordinate plane (rectangles and shapes composed of rectangles having sides with integer lengths)	

Performance Indicator Code	Performance Indicator	Instructional Period
7M2	Convert capacities and volumes within a given system	February
7M3	Identify customary and metric units of mass	
7M4	Convert mass within a given system	
7M9	Determine the tool and technique to measure with an appropriate level of precision: mass	
7M10	Identify the relationship between relative error and magnitude when dealing with large numbers (e.g. money, population)	
7M12	Determine personal references for customary/metric units of mass	
7M13	Justify the reasonableness of the mass of an object	

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Performance Indicator Code	Performance Indicator	Instructional Period
7S1	Identify and collect data using a variety of methods	March - April
7S2	Display data in a circle graph	
7S3	Convert raw data into double bar graphs and double line graphs	
7S4	Calculate the range for a given set of data	
7S5	Select the appropriate measure of central tendency	
7S6	Read and interpret data represented graphically (pictograph, bar graph, histogram, line graph, double bar/line graphs, or circle graph)	
7S7	Identify and explain misleading statistics and graphs	
7S8	Interpret data to provide the basis for predictions and to establish experimental probabilities	
7S9	Determine the validity of sampling methods to predict outcomes	
7S10	Predict the outcome of an experiment	
7S11	Design and conduct an experiment to test predictions	
7S12	Compare actual results to predicted results	
7M8	Draw central angles in a given circle using a protractor (circle graphs)	
7A7	Draw the graphic representation of a pattern from an equation or from a table of values	
7A8	Create algebraic patterns using charts/tables, graphs, equations, and expressions	
6S1**	Develop the concept of sampling when collecting data from a population and decide the best method to collect data for a particular question	
6S2**	Record data in a frequency table	
6S3**	Construct Venn diagrams to sort data	
6S4**	Determine and justify the most appropriate graph to display a given set of data (pictograph, bar graph, line graph, histogram or circle graph)	
6S9*	List possible outcomes for compound events	
6S10*	Determine the probability of dependent events	
6S11*	Determine the number of possible outcomes for a compound event by using the fundamental counting principle and use this to determine the probabilities of events when the outcomes have equal probability	
All of the above	REVIEW	

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7A9	Build a pattern to develop a rule for determining the sum of the interior angles of polygons	May - June
7A10	Write an equation to represent a function from a table of values	
7M1	Calculate distances using a map scale	
7M5	Calculate unit price using proportions	
7M6	Compare unit prices	
7M7	Convert money between different currencies with the use of an exchange rate table and a calculator	

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