

Math Level 6

Skills

Analytical

Contextual

Estimation and Computation (2)

NL.06.EC.01	Estimate solutions to evaluate reasonableness of results from multi-step problems.			
NL.06.EC.02	Add, subtract, multiply, and divide in various forms including scientific notation, powers, and roots with and without variables.			

Functions and Relationships(10)

NL.06.FR.01	Translate between equivalent representations of algebraic expressions (to include expressions with fractional and negative exponents).			
NL.06.FR.02	Add, subtract, multiply, divide, and simplify polynomials.			
NL.06.FR.03	Add, subtract, multiply, divide, and simplify common irrational and rational expressions (i.e. radicals).			
NL.06.FR.04	Create and solve systems of linear and second degree equations, algebraically and graphically, with or without the use of technology.			
NL.06.FR.05	Identify the dimensions of a matrix and represent and solve a system of linear equations in matrix form (with technology)			
NL.06.FR.06	Translate multiple step word problems into symbolic expressions, equations, or inequalities and solve for unknowns.			
NL.06.FR.07	Find an equation for a line or curve which models the scatter plot for a given set of data with and without technology			
NL.06.FR.08	Observe and collect data from a physical event and develop a function that describes and predicts that behavior all with the use of technology (i.e. probes, graphing calculator).			
NL.06.FR.09	Identify, graph, and describe the graphs of basic families of functions including linear, absolute value, quadratic, exponential, radical, and trigonometric with or without the use of technology.			

NL.06.FR.10	Find the roots of a quadratic function using the graph, quadratic formula, factoring, completing the square, and square roots			
Geometry (7)				
NL.06.GO.01	Identify and label angles, segments, and lines as they relate to circles, and use the properties to solve problems (i.e. tangents, arcs).			
NL.06.GO.02	Calculate unknown dimensions of a geometric figure using indirect methods and formulas (i.e. Pythagorean theorem, parallel lines/transversal, Right triangle Trig).			
NL.06.GO.03	Draw and label similar figures showing the correct relationship between corresponding parts.			
NL.06.GO.04	Identify the relationships among alternate interior angles, alternate exterior angles, corresponding angles, supplementary angles, and vertical angles.			
NL.06.GO.05	Solve geometrical congruence problems using the relationship between parallel, perpendicular, and oblique lines.			
NL.06.GO.06	Draw and label triangles illustrating the congruency relationships of SSS, SAS, ASA, AAS.			
NL.06.GO.07	Solve problems using similarity and congruence (i.e. prove two triangles are congruent).			
Measurement (2)				
NL.06.MS.01	Use, compare, and convert between units in the metric and standard system for length, mass, area, volume and temperature.			
NL.06.MS.02	Use unit analysis with standard and metric systems.			
Numeration (1)				
NL.06.NM.01	Identify and classify subsets of the real number system as natural, whole, integer, rational, irrational, real, or imaginary.			

Problem Solving (6)				
NL.06.PS.01	Applies practical skills in problems solving using typical business, consumer and real world problems			
NL.06.PS.02	Applies multi-step integrated mathematical problem solving strategies and verifies accuracy of solutions with alternative strategies			
NL.06.PS.03	Explain, justify and defend mathematical ideas, solutions and methods using multimedia presentations and appropriate visual aids.			
NL.06.PS.04	Recognizes and applies inductive and deductive reasoning.			
NL.06.PS.05	Explains the logic and reasoning of an argument.			
NL.06.PS.06	Maintain a math notebook that expresses goals, successes, and areas for improvement and explains mathematical ideas, solutions, and methods.			
Statistics and Probability (8)				
NL.06.SP.01	Compute the range, mean, median, mode, and standard deviation of a set of data and explore applications of each.			
NL.06.SP.02	Identify central tendencies and describe various distribution patterns from a set of data.			
NL.06.SP.03	Create and analyze graphical displays from collected data with and without technology.			
NL.06.SP.04	Make inferences based on available data and evaluate whether inferences are valid.			
NL.06.SP.05	Analyze data from multiple events and predict theoretical probability.			
NL.06.SP.06	Define and calculate problems using the fundamental counting principle, factorials, combinations and permutations.			
NL.06.SP.07	Calculate probability of independent and compound events.			
NL.06.SP.08	Design and conduct an experiment that compares both experimental and theoretical probability.			