CURRICULUM MAP – GEOMETRY

INTRODUCE

Mathematical skill	Conceptual Framework	Subset
Add/subtract vectors	Number Sense	Computation without calculator
Determine the magnitude of a vector	Number Sense	Computation without calculator
Locate an ordered triple in space coordinates	Geometry	Geometry

INTRODUCE / DEVELOP

Mathematical skill	Conceptual Framework	Subset
Use the rules of unions and intersections of sets to solve problems	Number Sense	Computation without calculator
Determine the vector equation of a line	Patterns and Functions	Relationship
Construct and alter figures using transformational geometry	Geometry	Geometry
Find the directed distance between a point and a line	Geometry	Geometry
Compute the lengths of chords and tangents	Geometry	Geometry
Compute the length of secants	Geometry	Geometry
Calculate area of sector of circle	Measurement	Angles

CURRICULUM MAP – GEOMETRY

DEVELOP

Mathematical skill	Conceptual Framework	Subset
Recognize and name irrational numbers	Number Sense	Number Sets
Use estimation in problem solving	Number Sense	Number Sets
Change irrational numbers to their simplest form	Number Sense	Relationship
Write and evaluate square roots	Number Sense	Computation without calculator
Calculate the value of a trigonometric expression with and without a calculator	Number Sense	Computation without calculator
Recognize and use the properties to simplify a numeric or algebraic expression	Number Sense	Computation without calculator
Determine the value of cube roots	Number Sense	Computation without calculator
Expand polynomials	Patterns and Functions	Relationship
Recognize special products and factoring	Patterns and Functions	Relationship
Solve equations involving radicals	Patterns and Functions	Relationship
Solve quadratic or second degree equations by factoring, quadratic formula and graphing	Patterns and Functions	Number
Apply completing the sequence to solve a quadratic equation	Patterns and Functions	Number
Use graphing calculator to solve polynomial functions	Patterns and Functions	Number
Apply and solve a system of linear equations by elimination, graphing, and substitution methods	Patterns and Functions	Number
Use graphing calculators to solve systems of equations	Patterns and Functions	Number
Use graphing calculators to confirm conjectures about parent functions of parabolas	Patterns and Functions	Number
Use graphing calculators to confirm conjectures about parent functions of absolute value functions	Patterns and Functions	Number

CURRICULUM MAP – GEOMETRY

Recognize if a relation is a function	Patterns and Functions	Relationship
Simplify rational expressions	Patterns and Functions	Relationship
Solve rational equations	Patterns and Functions	Relationship
Recognize the pattern between a function and its translation	Patterns and Functions	Relationship
Determine and graph the inverse of a function	Patterns and Functions	Relationship
Graph circles	Patterns and Functions	Relationship
Use graphing calculator to model and solve real world problems	Patterns and Functions	Relationship
Use trigonometric ratios to model and solve real world problems	Geometry	Geometry
Measure and determine surface area of other 3-D figures	Measurement	Types
Utilize problem solving strategies	Problem Solving	Problem Solving
Utilizes mental math	Problem Solving	Problem Solving

CURRICULUM MAP – GEOMETRY

DEVELOP / TEST

Mathematical skill	Conceptual Framework	Subset
Recognize & use transitive property	Patterns and Functions	Relationship
Determine the slope and intercepts of a line through a pair of given points	Patterns and Functions	Number
Recognize slope & y-intercept from a given linear equation	Patterns and Functions	Number
Recognize & describe exponential growth & decay	Patterns and Functions	Number
Recognize inductive and deductive reasoning	Patterns and Functions	Logic
Write and verify proofs [I/D/T]	Patterns and Functions	Logic
Identify and use properties of triangles and quadrilaterals [I/D/T]	Geometry	Geometry
Use the Pythagorean theorem to find the length of any side in a right triangle	Geometry	Geometry
Recognize types of congruencies in proving triangles congruent	Geometry	Geometry
Use coordinate geometry to model and solve real world problems	Geometry	Geometry
Compute the distance and midpoint of a segment with the appropriate formula	Geometry	Geometry
Use special right triangle relationships to find sides in a right triangle	Geometry	Geometry
Use the basic trigonometric ratios of sine, cosine, and tangent to solve for sides and angles in a right triangle	Geometry	Geometry
Use lengths and areas to determine theoretical geometric probabilities	Probability	Chance
Determine surface area of prisms	Measurement	Types
Measure / determine volume of other 3-D figures	Measurement	Types
Use indirect measurement	Measurement	Types