

U. C. Schools Curriculum Map

Subject: Math

Grade Level: 7

Time Period	August	September	October	November
Big Ideas	-Mathematical thinking	Patterns, Relationships and Functions: Patterns, Variability and Change	Geometry and Measurement: Shape and Shape Relationships	Geometry and Measurement: Shape and Shape Relationships and Position
Content				
Benchmarks and Skills		<ul style="list-style-type: none"> -Use words & symbols to describe numerical & geometric patterns & rules. -Identify & describe situations with constant or varying rates of change: compare them. -Describe what happens when surface area & volume of 3-D object when measurements change. -Use graphing calculators to display & interpret rate of change. (I: 1&2:1,2,3,6) 	<ul style="list-style-type: none"> -Determine sufficient properties that define a specific 2-D shape or 3-D object -Recognize the angles formed & relationship between angles when 2 lines intersect & when parallel lines are cut by a transversal. -Draw representations of 3-D geometric objects from different views. 	<ul style="list-style-type: none"> -Generalize about the common properties of similar, congruent, parallel and perpendicular shapes & verify their generalizations informally. -Use & demonstrate understanding of properties of triangles & quadrilaterals; use shapes, shape properties, & shape relationships to describe similarity & congruence... -Identify line & rotation symmetries of 2-D figures to solve problems
Assessments	-Extended response	-Extended response	-Extended response -Create Eschers using translations on square3s.	-Extended response

December	January	February	March	April	May
Big Ideas Geometry and Measurement: Position and Measurement	Geometry and Measurement: Measurement	Data Analysis and Statistics: Collection, Organization and Presentation of Data and Description and Interpretation	Data Analysis and Statistics: Description and Interpretation and Inference and Prediction	Number Sense and Numeration: Concepts and Properties of Numbers	Number Sense and Numeration: Representation and Use of Numbers and Number Relationships Measurement using tangent ratio
Content					
Benchmarks and Skills -Predict and describe sizes, positions, & orientations of 2-D shapes after transformations -Locate points or objects that satisfy multiple conditions -Select & use appropriate tools: measure objects using standard units in both metric & common systems & measure angles in degrees.	-Understand, select, and use units of appropriate size and type to measure surface area & volume. Understand and describe difference between surface area & volume; determine, select and use measure that matches context of problem situation. -Solve problems involving proportional relationships & scale factors. -Use strategies to develop formulas for determining volume of cylinders & prisms.	-Organize & display data in appropriate bar, line, circle graphs and stem-and-leaf and scatterplots. -Analyze how decisions about graphing affect the graphical representation & explain why one representation is preferred over another. -Read, construct & interpret box- plots, stem-and-leaf plots, & other types of graphs, when appropriate.	-Compare data from two or more samples to determine how sample selection can influence results; identify misuse of data in articles, ads & other media; analyze ways the wording of ?'s can influence survey results. -Construct opposing arguments based on analysis of the same data, using different graphical representations; identify claims based on statistical data and evaluate reasonableness of claims.	-Describe the difference between rational & irrational numbers to show that some numbers can be expressed as terminating or repeating decimals & others as non-terminating & non- repeating decimals. -Demonstrate and understanding of place value using powers of ten & write large numbers in scientific notation.	-Select appropriate representations for percents, ratios, and proportional reasoning in order to simplify & solve problems, & determine the reasonableness of solutions. -Explain the meaning of powers & roots of numbers & use calculators to compute powers & square roots. -Measure heights using tangent ratio.
Assessments	-Extended response	-Extended response	-Extended response	-Extended response	-Extended response -“Outdoor” activity demonstrating correct measurement using tangent ratio.