Geometry B Math Lab Schedule

This high school level Geometry Lab is designed to support students in grades 9-12 that are taking a Geometry course at home. Students must attend at least 10 math labs per semester in order to earn 1 credit on their high school transcript for the course. Students that arrive later than 20 minutes after the lab has begun will not receive credit for attending the lab on that class day. Class times will be determined on a site-by-site basis.

Tuesday	**Wednesday**	**Thursday**
East County	Central County	South County

Week of	Semester 2	Lab Objectives
Jan 18	Lab 1	Find the geometric mean between two numbers. Solve problems involving relationships between parts of a triangle and the altitude to its hypotenuse. Use the Pythagorean Theorem and its converse. Use the properties of 45°-45°-90° and 30°-60°-90° triangles. Find trigonometric ratios using right triangles. Solve problems using trigonometric ratios.
Jan 25	Lab 2	Use trigonometry to solve problems involving angles of elevation or depression. Use the Law of Sines to solve triangles. Use the Law of Cosines to solve triangles. Choose the appropriate strategy for solving a problem.
Feb 1	Lab 3	Identify and use parts of circles. Solve problems involving the circumference of a circle. Recognize major arcs, minor arcs, semicircles, and central angles. Find measures of arcs and central angles. Solve problems by making circle graphs. Recognize and use relationships among arcs, chords, and diameters.
Feb 8	Lab 4	Recognize and find measures of inscribed angles. Apply properties of inscribed figures. Recognize tangents and use properties of tangents. Find the measures of angles formed by intersecting secants and tangents in relation to intercepted arcs.
Feb 15	Lab 5	Use the properties of chords, secants, and tangents to solve segment measure problems. Write and use the equation of a circle in a coordinate plane.
Feb 22	Lab 6	Identify and name polygons. Find the sum of the measures of interior and exterior angles of convex polygons and measures of interior and exterior angles of regular polygons. Solve problems involving architecture, landscaping, and recreation. Identify regular and uniform (semi-regular) tessellations. Create tessellations with specific attributes. Solve problems by using guess and check.
Mar 1	Lab 7	Find areas of parallelograms Find areas of triangles, rhombi, and trapezoids. Find areas of regular polygons. Find areas of circles.
Mar 8	Lab 8	Use area to solve problems involving geometric probability. Recognize nodes and edges as used in graph theory. Determine if a network is traceable. Determine if a network is complete.

Mar 15	Lab 9	Use top, front, side, and corner views of three dimensional solids to make models. Describe and draw cross sections and other slices of three-dimensional figures. Draw three-dimensional figures on isometric dot paper. Make two-dimensional nets for three dimensional solids. Find surface areas. Find the lateral area and surface of a right prism. Find the lateral area and surface area of a right cylinder. Find the lateral area and surface area of a regular pyramid. Find the lateral area and surface area of a right circular cone.
Mar 22	Lab 10	Find the volume of a right prism. Find the volume of a right cyclinder. Find the volume of a pyramid. Find the volume of a circular cone. Recognize and define basic properties of spheres. Find the surface area and the volume of a sphere. Identify congruent or similar solids. State properties of congruent solids.
Mar 29	**No Lab**	**Spring Break**
Apr 5	**No Lab**	**Spring Break**
Apr 12	Lab 11	Graph linear equations using the intercepts method and the slope-intercept method. Write an equation of a line given information about its graph. Solve problems by using equations. Relate statistics and equations of lines to geometric concepts.
Apr 19	Lab 12	Prove theorems using coordinate proofs. Find the magnitude and direction of a vector. Determine if two vectors are equal. Perform operations with vectors. Locate a point in space. Use the distance and midpoint formulas for points in space. Determine the center and radius of a sphere.
Apr 26	Test Prep	Star test preparation
May 3	**No Lab**	**STAR Testing**
May 10	**No Lab**	**STAR Testing**
May 17	Lab 13	Locate, draw, and describe a locus in a plane or in space. Find the locus of points that are solutions of a system of equations by graphing, substitution, or elimination. Solve locus problems that satisfy more than one condition. Recognize an isometry or congruence transformation. Solve problems by making a table.
May 24	Lab 14	Name, recognize, and draw reflected images, lines of symmetry, and points of symmetry. Name and draw translation images of figures with respect to parallel lines. Name and draw rotation images of figures with respect to intersecting lines. Use scale factors to determine dilation is an enlargement, a reduction, or a congruence transformation. Find the center and scale factor for a given dilation, and vice versa.
May 31	Grades Posted	Work is no longer accepted for credit because grades are in!