

The following are notes referencing Henri Picciotto's [Geometry Labs](#), sorted numerically. This is not an exhaustive list.

Resource	One-sentence summary	Topics
Labs 1.2 and 1.3	Measurement, protractor, and angles in clocks	<ul style="list-style-type: none"> • Angles • Measurement • Ratios • Circle (introduction)
Lab 1.7	Teaching triangle vocabulary inside a circle, using circle geoboard. Has deductive solving of angles also.	<ul style="list-style-type: none"> • Triangle basics • Deduction • Circle theorems
Labs 1.8 and 1.9	Inscribed angles theorem. Has deductive solving also.	<ul style="list-style-type: none"> • Circle theorems • Deduction
Lab 1.10	Really cool soccer exploration. Puts inscribed angles theorem to use in context of shooting angles.	<ul style="list-style-type: none"> • Circle theorems
Lab 2.4	Use Tangrams to create polygons that play with symmetry	<ul style="list-style-type: none"> • Symmetry • Polygons
Lab 3.1	Construction of triangles using tools; introduces triangle inequality	<ul style="list-style-type: none"> • Construction tools • Triangle Inequality
Labs 3.3, 3.5, 3.8	"Walking polygons" introduction of exterior and interior angles.	<ul style="list-style-type: none"> • Exterior angles • Interior angles • Regular polygons • Polygon angles sum
Labs 5.1 - 5.3	Playing with symmetry using capital letters of the alphabet and words, triangles and quadrilaterals,	<ul style="list-style-type: none"> • Line symmetry • Rotational symmetry
Lab 5.4	Playing with multiple mirrors - this looks interesting as enrichment, but I need to try it with mirrors to know what's entailed?	
Lab 6.1	Asking kids to construct two <i>different</i> triangles with given information – is it possible?	<ul style="list-style-type: none"> • Triangle congruence theorems
Lab 6.3	Building quadrilaterals "inside-out" starting from diagonals descriptions. Very cool!	<ul style="list-style-type: none"> • Quadrilateral properties
Lab 8.4	Calculating areas in the Geoboard	<ul style="list-style-type: none"> • Area calculation

Lab 8.5	Rotated squares in Geoboard - "How do you know it's a square?"	<ul style="list-style-type: none"> • Slope • Area calculation • Distance calculation
Lab 9.1	Taxicab v. Euclidean Geometry in the Geoboard	<ul style="list-style-type: none"> • Distance formula • Taxicab math
Labs 9.2 and 9.3	Pythagorean proof and radicals in the Geoboard	<ul style="list-style-type: none"> • Simplifying square roots • Pythagorean Theorem proof
Lab 9.4	Observing patterns about radical distances radiating from the origin	<ul style="list-style-type: none"> • Symmetry • Slope • Distance formula
Lab 9.6	Hard! problems involving taxicab math. Good for math club?	
Lab 10.1	Creating scaled triangles in the Geoboard using midpoints	<ul style="list-style-type: none"> • Similarity of triangles • Slopes of parallel lines • Scaled area v. scaled lengths • Triangle Midpoint Theorem
Lab 10.2	Comparing similar and non-similar rectangles in Quadrant I, with one vertex at the origin. Tie in to algebra!	<ul style="list-style-type: none"> • Slope • Similarity of rectangles
Labs 10.3 and 10.5	Making and testing hypotheses about scaled polyominoes; using interlocking cubes to explore volume and surface area	<ul style="list-style-type: none"> • Similarity of irregular polygon • Scaling 3D solids • Scaled lengths v. scaled areas v. scaled volumes • Volume • Surface Area
Lab 10.6	Filling out tangram side lengths and perimeters, given one starting value.	<ul style="list-style-type: none"> • Combining like terms • Perimeter • Area • Similarity
Lab 10.7	By completing a table and answering questions, students discover special right triangles, then apply them to other shapes.	<ul style="list-style-type: none"> • Special right triangles • Pythagorean Theorem
Lab 11.7	Mixed practice of various skills in the context of analyzing triangles and quadrilaterals inside a circle geoboard. A bit challenging but great problems!	<ul style="list-style-type: none"> • Ratio • Circle • Trigonometry • Area • Perimeter • Inscribed angles Theorem