McFarland Unified School District
Assessment Blueprint
Geometry

	Benchmark 1		
	Standard	**# Items**	**Specific Focus**
1	G 1.0	4	Students demonstrate understanding by identifying and giving examples of undefined terms, axioms, theorems, and inductive and deductive reasoning.
2	G 2.0	4	Students write geometric proofs, including proofs by contradiction.
3	G 3.0	4	Students construct and judge the validity of a logical argument and give counterexamples to disprove a statement.
4	G 7.0	4	Students prove and use theorems involving the properties of parallel lines cut by a transversal, the properties of quadrilaterals, and the properties of circles.
5	G 12.0	4	Students find and use measures of sides and of interior and exterior angles of triangles and polygons to classify figures and solve problems.
6	G 16.0	4	Students perform basic constructions with a straightedge and compass, such as angle bisectors, perpendicular bisectors, and the line parallel to a given line through a point off the line.

	Benchmark 2		
	Standard	**# Items**	**Specific Focus**
1	G 2.0	4	Students write geometric proofs, including proofs by contradiction.
2	G 4.0	4	Students prove basic theorems involving congruence and similarity.
3	G 7.0	4	Students prove and use theorems involving the properties of parallel lines cut by a transversal, the properties of quadrilaterals, and the properties of circles.
4	G 12.0	4	Students find and use measures of sides and of interior and exterior angles of triangles and polygons to classify figures and solve problems.
5	G 13.0	4	Students prove relationships between angles in polygons by using properties of complementary, supplementary, vertical, and exterior angles.
6	G 17.0	4	Students prove theorems by using coordinate geometry, including the midpoint of a line segment, the distance formula, and various forms of equations of lines and circles.
7	G 18.0	4	Students know the definitions of the basic trigonometric functions defined by the angles of a right triangle. They also know and are able to use elementary relationships between them. For example, $\tan(x) = \sin(x)/\cos(x)$, $(\sin(x))^2 + (\cos(x))^2 = 1$.
8	G 19.0	4	Students use trigonometric functions to solve for an unknown length of a side of a right triangle, given an angle and a length of a side.

	Benchmark 3		
	Standard	**# Items**	**Specific Focus**
1	G 7.0	4	Students prove and use theorems involving the properties of parallel lines cut by a transversal, the properties of quadrilaterals, and the properties of circles.
2	G 8.0	4	Students know, derive, and solve problems involving the perimeter, circumference, area, volume, lateral area, and surface area of common geometric figures.
3	G 10.0	4	Students compute areas of polygons, including rectangles, scalene triangles, equilateral triangles, rhombi, parallelograms, and trapezoids.
4	G 17.0	4	Students prove theorems by using coordinate geometry, including the midpoint of a line segment, the distance formula, and various forms of equations of lines and circles.
5	G 21.0	4	Students prove and solve problems regarding relationships among chords, secants, tangents, inscribed angles, and inscribed and circumscribed polygons of circles.
6	G 22.0	4	Students know the effect of rigid motions on figures in the coordinate plane and space, including rotations, translations, and reflections.

Standards not assessed: