North Carolina High School Geometry
Curriculum Mapping

Geometry Performance Standard	Boardworks High School Geometry presentation
COMPETENCY GOAL 1: The learner will perform operations with real numbers to solve problems.	
1.01 Use the trigonometric ratios to model and solve problems involving right triangles.	Right triangles The sine ratio The cosine ratio The tangent ratio Trigonometry summary Applying trigonometry Opposite and adjacent sides The sine, cosine and tangent of any angle Trig value functions on the unit circle Sin, cos and tan of 30, 45 and 60
1.02 Use length, area, and volume of geometric figures to solve problems. Include arc length, area of sectors of circles; lateral area, surface area, and volume of three-dimensional figures; and perimeter, area, and volume of composite figures.	The length of an arc The area of a sector Prisms Pyramids Cylinders, cones and spheres Using length, area and volume formulas Area formulas and calculations Using area formulas The area of a circle Surface area of rectangular prisms Volume of right rectangular prisms
1.03 Use length, area, and volume to model and solve problems involving probability.	–
COMPETENCY GOAL 2: The learner will use geometric and algebraic properties of figures to solve problems and write proofs.	
2.01 Use logic and deductive reasoning to draw conclusions and solve problems.	–
2.02 Apply properties, definitions, and theorems of angles and lines to solve problems and write proofs.	Lines Angles Using angles

2.03 Apply properties, definitions, and theorems of two-dimensional figures to solve problems and write proofs:	
a) Triangles.	Triangles The Pythagorean Theorem Identifying right triangles Pythagorean triples Similar right triangles Calculating sides of a triangle Finding the length of diagonals using the Pythagorean Theorem Finding the height of triangles using the Pythagorean Theorem Using the Pythagorean Theorem to solve problems in context Finding the distance between two points using the Pythagorean Theorem Finding the diagonal in a rectangular prism The Triangle Inequality Theorem Special right triangles
b) Quadrilaterals.	Quadrilaterals
c) Other polygons.	Polygons Interior and exterior angles of polygons
d) Circles.	Parts of a circle Angles in a circle Radius and circumference The area of a circle The length of an arc The area of a sector The equation of a circle Using circle properties Tangents and normals

2.04 Develop and apply properties of solids to solve problems.	Prisms Pyramids Cylinders, cones and spheres Using length, area and volume formulas Volume of right rectangular prisms Surface area of rectangular prisms Edges of rectangular prisms
COMPETENCY GOAL 3: The learner will transform geometric figures in the coordinate plane algebraically.	
3.01 Describe the transformation (translation, reflection, rotation, dilation) of polygons in the coordinate plane in simple algebraic terms.	Translation Rotation Reflection symmetry Rotational symnmetry Combining transformations
3.02 Use matrix operations (addition, subtraction, multiplication, scalar multiplication) to describe the transformation of polygons in the coordinate plane.	Combining transformations Translation