CONNEAUT AREA SCHOOL DISTRICT MATHEMATICS Adopted June 2019		
UNIT OF STUDY: Measurements of two dimensional shapes and figures	COURSE/GRADE: Applied Geometry	# WEEKS: 6

Module 1	
Focus (emphasis) Standards/EC: **G.2.2.1.1** Use properties of angles formed by intersecting lines to find the measures of missing angles. **CC.2.3.8.A.2** Understand and apply congruence, similarity, and geometric transformations using various tools. **CC.2.3.HS.A.3** Verify and apply geometric theorems as they relate to geometric figures. **G.2.2.1.2** Use properties of angles formed when two parallel lines are cut by a transversal to find the measures of missing angles. **G.2.2.2.1** Estimate area, perimeter, or circumference of an irregular figure. **CC.2.2.HS.C.1** Use the concept and notation of functions to interpret and apply them in terms of their context. **CC.2.3.HS.A.3** Verify and apply geometric theorems as they relate to geometric figures. **CC.2.3.HS.A.9** Extend the concept of similarity to determine arc lengths and areas of sectors of circles. **G.2.2.2.2** Find the measurement of a missing length, given the perimeter, circumference, or area. **G.2.2.2.3** Find the side lengths of a polygon with a given perimeter to maximize the area of the polygon. **G.2.2.2.4** Develop and/or use strategies to estimate the area of a compound/composite figure. **G.2.2.2.5** Find the area of a sector of a circle. **G.2.2.3.1** Describe how a change in the linear dimension of a figure affects its perimeter, circumference, and area **CC.2.3.HS.A.8** Apply geometric theorems to verify properties of circles. **CC.2.3.HS.A.9** Extend the concept of similarity to determine arc	Technology/manipulatives: Chromebook Smart board Electronic text book calculator Ruler 3 D figures Nets Dice CAD program Online videos for reinforcement Studyzone.org Studyisland Firstinmath National Library of Virtual Manipulatives Graph paper

lengths and areas of sectors of circles. **G.2.2.4.1** Use area models to find probabilities. **CC.2.3.HS.A.14** Apply geometric concepts to model and solve real-world problems.	
Important (reinforced) Standards/EC: All items listed above to be reinforced throughout year. Two parallel lines and transversal	Reading, writing, speaking strategies: Word problems, journal writing, bell ringers, partner sharing, think aloud, paraphrasing, board work, sharing out to class, note taking skills development
Vocabulary: alternate interior angles, alternate exterior, same side interior angles, same side exterior, corresponding angles, equiangular triangle, equilateral, exterior angle, polygon, regular polygon, remote interior angles, transversal, parallel lines, perpendicular lines, slope, distance formula, midpoint formula, Pythagorean Theorem, perimeter, circumference, area, apothem, arc length, central angle, concentric circles, geometric probability, segment of circle, semicircle	Questioning and discussion techniques: Real world problems/applications, bill ringers, exit tickets, journals, Frayer model, small group tasks,
Real life application: graphic design, maps, estimation of distance, molding, engineering, Construction, roof truss, height of items in distance, airline industry, architecture, astronomy, traffic signs, farming equipment, amusement parks, Career connections: www.xpmath.com/careers/lite.php	Performance assessment: quiz, test, Studyisland, crane projects, homework, group discussion, similarity architect project
Computation: One step algebraic equations Two step algebraic equations Ratio and proportions Pythagorean theorem Slope, distance, midpoint Area of various shapes	Accommodations/adaptations: Limiting , homework problems, guided problem solving, peer groups, tutorial time, needs based on IEP
SAS Module Resources: http://www.pdesas.org/standard/PACore	