CONNEAUT AREA SCHOOL DISTRICT MATHEMATICS Adopted June 2019		
UNIT OF STUDY: Properties of Circles, Spheres, and Cylinders	COURSE/GRADE: Applied Geometry	# WEEKS: 6
Module 6		
Focus (emphasis) Standards/EC: **G.1.1.1.1** Identify, determine, and/or use the radius, diameter, segment, and/or tangent of a circle. **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 lengths and areas of sectors of circles. **CC.2.3.HS.A.13** Analyze relationships between two-dimensional and three-dimensional objects. **G.1.1.1.2** Identify, determine, and/or use the arcs, semicircles, sectors, and/or angles of a circle. **G.1.1.1.3** Use chords, tangents, and secants to find missing arc measures or missing segment measures. **G.1.1.1.4** Identify and/or use the properties of a sphere or cylinder.	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	
Important (reinforced) Standards/EC: All items listed above to be reinforced throughout year. Tools of Geometry, circles and arcs	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: radius, diameter, segment, tangent, semicircles, sectors, chords, secants, arc measure, sphere, cylinder, cone, surface area, circumscribed about, inscribed, intercepted arc, point of tangency, standard form of circle	Questioning and discussion techniques: Real world problems/applications, bill ringers, exit tickets, journals, Frayer model, small group tasks	
Real life application: graphic design, sports equipment, tool design, optics, engineering, architecture, astronomy, traffic signs, manufacturing, amusement parks, gears, bikes,	Performance assessment: quiz, test, Studyisland, bridge construction projects, homework, group discussion, self-generated 3D figures	

astronomy, clocks, furniture, computer design, space probe, bridge design Career connections: www.xpmath.com/careers/lite.php	
Computation: One step algebraic equations Two step algebraic equations Ratio and proportions Pythagorean theorem Slope, distance, midpoint Area of various shapes Volumes 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	