CONNEAUT AREA SCHOOL DISTRICT MATHEMATICS		
UNIT OF STUDY: Rectangular coordinates, functions and their graphs	COURSE/GRADE: Pre Calculus	# WEEKS: 5
Module 1		
Focus (emphasis) Standards/EC: use graphing calculator/technology solve, sketch polynomial, rational and radical equations/inequalities represent statistical data graphically for use in problem solving and analysis graph, determine the components, and evaluate a function sketch functions by translation find arithmetic, compositions, and inverses of functions find appropriate domains use factoring, synthetic division, and long division to determine zeroes of polynomials graph to determine domain, intercepts, and asymptotes refer to PA standards	Technology/manipulatives: I pad 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 Pre calculus, linear and non linear algebra	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: Cartesian plane, quadrants, scatter plot, distance formula, midpoint formula, sketching equation, intercepts, symmetry, slope, domain, range, increasing, decreasing, zeros of function, constant, relative minimum, relative maximum, average rate of change	Questioning and discussion techniques: Real world problems/applications, bill ringers, exit tickets, journals, Frayer model, small group tasks	

Real life application: graphic design, tool design, optics, engineering, architecture, manufacturing, amusement parks, gears, bikes, clocks, space probe, bridge design Career connections: www.xpmath.com/careers/lite.php	Performance assessment: quiz, test, Studyisland, performance projects, homework, group discussion, self-generated math labs
Computation: One step algebraic equations Two step algebraic equations Ratio and proportions Pythagorean theorem Slope, distance, midpoint Equations of lines Difference quotient	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 http://www.corestandards.org/wp-content/uploads/Math_Standards.pdf http://www.education.pa.gov/K-12/Pages/default.aspx http://achievethecore.org/dashboard/300/search/1/2/9/10/11/12	