CONNEAUT AREA SCHOOL DISTRICT MATHEMATICS		
UNIT OF STUDY: Exponential and logarithmic functions: graphs, properties, equations, and models	COURSE/GRADE: Pre Calculus	# WEEKS: 7
Module 5		
Focus (emphasis) Standards/EC: Solve and graph exponential and logarithmic equations and apply to real life applications Exponential functions and graphs Logarithmic functions and graphs Properties of logarithms Exponential and logarithmic equations and models 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 Graph paper	
Important (reinforced) Standards/EC: Quadratic functions and models Polynomial functions of higher degree Synthetic division Zeros of polynomial functions Rational functions Nonlinear Inequalities	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: exponential, transformation of exponential function, natural base e, common base, logarithmic functions, natural logarithm, change of base, common logarithm, growth/decay	Questioning and discussion techniques: Real world problems/applications, bill ringers, exit tickets, journals, Frayer model, small group tasks	

Real life application: finance, continuous compound interest, compound interest, radioactive decay, data analysis, population statistics, college enrollment, cost/revenue/profit, human memory, digital music sales, fluid flow, fuel use, diesel mechanics, path of diver, home prices, advertising, recycling, doubling investment, Career connections: www.xpmath.com/careers/lite.php	Performance assessment: quiz, test, Studyisland, performance projects, homework, group discussion, self-generated math labs
Computation: Two step algebraic equations Ratio and proportions Slope, distance, midpoint Cost benefit Exponential equations and manipulations Logarithm equations and manipulations	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	