CONNEAUT AREA SCHOOL DISTRICT MATHEMATICS—Module 6		
UNIT OF STUDY: Linear Functions	**COURSE/GRADE:** Grade 8	**# WEEKS:** 15 days

Focus (emphasis) Standards/EC	**Technology/manipulatives**
CC.2.2.8.C.2 Use concepts of functions to model relationships between quantities **M08.B-F.2.1** Represent or interpret functional relationships between quantities using tables, graphs, and descriptions. **M08.B-F.2.1.1** Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two (x, y) values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models and in terms of its graph or a table of values. **M08.B-F.2.1.2** Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch or determine a graph that exhibits the qualitative features of a function that has been described verbally. **CC.2.4.8.B.1** Analyze and/or interpret bivariate data displayed in multiple representations. **M08.D-S.1.1** Analyze and interpret bivariate data displayed in multiple representations. **M08.D-S.1.1.1** Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative correlation, linear association, and nonlinear association. **M08.D-S.1.1.2** For scatter plots that suggest a linear association, identify a line of best fit by judging the closeness of the data points to the line.	Calculators, Smartboard, Study Island, rulers, white boards, highlighters, graph paper

M08.D-S.1.1.3 Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. Example: In a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height. **CC.2.4.8.B.2** Understand that patterns of association can be seen in bivariate data utilizing frequencies. **M08.D-S.1.2** Understand that patterns of association can be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. **M08.D-S.1.2.1** Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible associations between the two variables. Example: Given data on whether students have a curfew on school nights and whether they have assigned chores at home, is there evidence that those who have a curfew also tend to have chores?	
Important (reinforced) Standards/EC	**Reading, writing, speaking strategies** Journaling, read aloud, persuasive/informational/expository writing, graphic organizers, Frayer model, lecture, cooperative learning, board work, demonstration, Think-Pair-Share, note-taking, crossword puzzles

Vocabulary **Bivariate data, distribution, line of best fit, mean absolute deviation, qualitative data, quantitative data, relative frequency, scatter plot, standard deviation, symmetric, two-way table, univariate data, five number summary (5 points on the box and whisker plot)**	
Real life application Business, engineering, agriculture	**Performance assessment** Test, Quiz, Performance Task, Homework, Projects, Notebooks, Study Island
Computation Operations involving real numbers, graphing	**Accommodations/adaptations** Differentiation strategies, small group instruction, cooperative learning, guided practice, peer tutoring, limited problems/choices, manipulatives and models, clarity checks, diagrams and graphs
SAS Module Resources www.pdesas.org: *Grade 8 Mathematics Assessment Anchors and Eligible Content *Mathematics Glossary *PA Core Mathematics, Grades PreK-12 *PA Standards Instructional Frameworks: Math (Go to Teacher Tools then Curriculum Mapping) *Math Cluster Matrix – Tri-folds 6-7-8	

