

<b>Enriched Algebra A</b>	<b>September - Linear Models</b>	<b>October - Linear Graphing</b>	<b>November - Linear Inequalities</b>
Essential Questions	How do you use scatter plots to find correlations between variables? How do you write the equation of a line? How do you use an equation to make predictions about data?	How do we create graphs given the equation of a line? How can we find the linear equation for a specific graph? How can we use graphs to model real world scenarios? What is a function, and how can it be evaluated?	What is the difference between equations and inequalities? How can real-life situations be modeled through the use of inequalities? How does absolute value relate to linear equations? How do you make and use a stem & leaf plot and a box & whisker plot to order data and find measures of central tendency?
Content	<ol style="list-style-type: none"> <li>1) Scatter Plots showing: <ul style="list-style-type: none"> <li>▪ no correlation</li> <li>▪ positive correlation</li> <li>▪ negative correlation</li> </ul> </li> <li>2) Data Collection</li> <li>3) Use scatter plots to make predictions</li> <li>4) Draw the line of best fit</li> <li>5) Calculate the slope of a line from a table, from a graph and from the formula</li> <li>6) Write the equation of a line: <ul style="list-style-type: none"> <li>▪ given point &amp; slope</li> <li>▪ given 2 points</li> </ul> </li> <li>7) Interpolation &amp; Extrapolation within data</li> <li>8) TI – 84 Training/Navigator Training</li> </ol>	<ol style="list-style-type: none"> <li>1) Graph an equation with one &amp; two variables (slope – intercept graphs)</li> <li>2) Write the equation of the line for a given graph</li> <li>3) Determine the intercepts for an equation</li> <li>4) Sketch graphs using intercepts</li> <li>5) Determine possible solutions for an equation</li> <li>6) Parallel &amp; Perpendicular Lines</li> <li>7) Functions &amp; Relations</li> <li>8) Evaluating functions</li> <li>9) Identify the Domain &amp; Range of a function</li> <li>10) TI – 84 Usage</li> </ol>	<ol style="list-style-type: none"> <li>1) Solving &amp; graphing simple and compound inequalities in one variable</li> <li>2) Problem solving using inequalities and compound inequalities</li> <li>3) Graphing linear inequalities in two variables</li> <li>4) Solving absolute value equations and inequalities</li> <li>5) Number line graphs for absolute value inequalities</li> <li>6) Graphs of absolute value equations</li> <li>7) Stem &amp; Leaf Plots</li> <li>8) Box &amp; Whisker Plots</li> <li>9) Measures of Central Tendency</li> </ol>
Skills	<ol style="list-style-type: none"> <li>1) Create graphs of scatter plots (by hand at first, then mainly on the TI-84) &amp; make general predictions about trends</li> <li>2) Determine the correlation between the variables</li> <li>3) Draw the line of best fit</li> <li>4) Find the slope of the best fitting line, using 2 data points</li> <li>5) Write the equation of the best fitting line (by hand &amp; using calculator)</li> <li>6) Make predictions using interpolation &amp; extrapolation with the equation</li> <li>7) Collect data, create graphic models of data, compute &amp; graph trend line, use line to make predictions for data</li> </ol>	<ol style="list-style-type: none"> <li>1) Graph equations in one variable</li> <li>2) Write the equation for the vertical or horizontal graph</li> <li>3) Sketch a 2 variable equation using slope-intercept form (check graphs using the TI-84)</li> <li>4) Write the equation of the line given the graph</li> <li>5) Find the intercepts of an equation</li> <li>6) Create a graph using only the intercepts</li> <li>7) Determine possible solutions for an equation or modeled situation</li> <li>8) Use intercepts, and intercept graphs, to model real world scenarios</li> <li>9) Explore relationships between parallel &amp; perpendicular lines using graphic &amp; algebraic means</li> <li>10) Identify relations that are functions, graphically and using a set of ordered pairs (vertical line test)</li> <li>11) Evaluate functions for a given variable</li> <li>12) Identify the restrictions of a function or relation (domain &amp; range)</li> <li>13) Apply domain &amp; range concepts to determining the appropriate window for equations &amp; data</li> </ol>	<ol style="list-style-type: none"> <li>1) Solve and graph inequalities in one variable</li> <li>2) Solve and graph compound inequalities</li> <li>3) Use and write inequalities to model real life situations</li> <li>4) Create graphs for 2 variable inequalities</li> <li>5) Solve &amp; graph absolute value equations</li> <li>6) Solve &amp; graph absolute value inequalities</li> <li>7) Organize data using a stem &amp; leaf plot</li> <li>8) Determine the mean, median &amp; mode of a set of numbers</li> <li>9) Arrange data using a box &amp; whisker plot</li> </ol>
CH Standards/Benchmarks	3.11 (3,4,6,7); 3.14 (5,6,10); 3.17 ( 2-5); 3.15 (1,6); 3.12 (7,13,15); 3.13 (13-20)	3.11 (3,5); 3.14 (1,2); 3.15 (4); 3.17 (2,3); 3.18 (1,2,4,7); 3.19 (1,2)	3.14 (8,9); 3.11 (3,5); 3.17 (1,2,3); 3.18 (1,2,4,6,7); 3.19;(1,2,3)
Assessments	<ol style="list-style-type: none"> <li>1) Chapter Test &amp; Quizzes</li> <li>2) TI-84/Navigator Activities</li> <li>3) Homework &amp; Practice Worksheets</li> </ol>	<ol style="list-style-type: none"> <li>1) Chapter Test &amp; Quizzes</li> <li>2) TI-84/Navigator Activities</li> <li>3) Barbie Bungee Lab</li> <li>4) Homework &amp; Practice Worksheets</li> </ol>	<ol style="list-style-type: none"> <li>1) Chapter test &amp; Quizzes</li> <li>2) TI-84/Navigator Activities</li> <li>3) Homework &amp; Practice Worksheets</li> </ol>