

Scope and Sequence

Subject/Title of Unit	Grade	6 Weeks	Estimated Time Frame (# of days)
Algebra 2 *Chapter 2 Linear Equations and Functions	10-12	1 st	15 days
TEKS/Student Expectations		Examples/Specifications:	
<p><i>The student uses properties and attributes of functions and applies functions to problem situations. Following are performance descriptions.</i></p> <p>2A.1.A – For a variety of situations, the student identifies the mathematical domains and ranges and determines reasonable domain and range values for given situations.</p> <p>2A.1.B – In solving problems, the student collects data and records results, organizes the data, makes scatterplots, fits the curves to the appropriate parent function, interprets the results, and proceeds to model, predict, and make decisions and critical judgments.</p> <p><i>Foundations for functions: knowledge and skills and performance descriptions. The student understands the importance of the skills required to manipulate symbols in order to solve problems and uses the necessary algebraic skills required to simplify algebraic expressions and solve equations and inequalities in problem situations. Following are performance descriptions.</i></p> <p>2A.2.A – The student uses tools including matrices, factoring, and properties of exponents to simplify expressions and transform and solve equations.</p> <p><i>The student connects algebraic and geometric representations of functions. Following are performance descriptions.</i></p> <p>2A.4.A - The student identifies and sketches graphs of parent functions, including linear ($y = x$), quadratic ($y = x^2$), square root ($y = \sqrt{x}$), inverse ($y = 1/x$), exponential ($y = a^x$), and logarithmic ($y = \log_a x$) functions.</p> <p>2A.4.B – The student extends parent functions with parameters such as m in $y = mx$ and describes parameter changes on the graph of parent functions.</p> <p><i>Rational functions: knowledge and skills and performance descriptions. The student formulates equations and inequalities based on rational functions, uses a variety of methods to solve them, and analyzes the solutions in terms of the situation. Following are performance descriptions</i></p> <p>2A.10.G – The student uses direct and inverse variation functions as models to make predictions in problem situations.</p> <p><i>A.1.D, A.6.A,B,D A.7.A,B</i></p>		<ul style="list-style-type: none"> ✓ Student will be able to represent relations and functions ✓ Student will be able to use absolute value functions and transformations ✓ Student will be able to graph linear inequalities in two variables ✓ Student will be able to write equations of lines ✓ Student will be able to find slope and rate of change ✓ Student will be able to graph equations of lines ✓ The student uses direct and inverse variation functions as models to make predictions in problem situations. 	

Process of Instruction/Products:	Instructional Resources/Textbook Correlations:		
<p>Student Inquiry lesson to promote self learning on:</p> <ol style="list-style-type: none"> 1. Find Slope and Rate of Change (2.2) 2. Graphing Linear Inequalities in Two Variables (2.8) <p>Lecture using transparencies and note taking on:</p> <ol style="list-style-type: none"> 1. Represent Relations and Functions (2.1) 2. Graph Equations of Lines (2.3) 3. Write Equations of Lines (2.4) 4. Model Direct Variation (2.5) 5. Use Absolute Value Functions and Transformations (2.7) <p>Website for (2.7) White board activity for test review of concepts</p>	<p>McDougal Littell/ Larson Algebra 2</p> <p>CH 2 pages 70 - 146</p>		
Language of Instruction	Weblinks/Other Resources:		
<p>Domain range y-intercept best-fitting line Function slope-intercept form absolute value function Linear function x-intercept slope rate of change Point-slope form transformation direct variation Linear inequality in two variables parent function Correlation coefficient</p>	<p>www.coolmath.com</p>		
Evaluation/External Assessment/Local Assessment:	Best Instruction Timeline:		
<p>Daily Homework In-class work End of Unit Test 2-5 Quizzes Vacation project (sec.2.2, 2.4)</p>	<p>Day 1 Day 2, 3 Day 4, 5 Day 6 Day 7</p>	<p>Day 8, 9 Day 10, 11 Day 12 Day 13 Day 14</p>	<p>Day 15</p>