

<p style="text-align: center;"><b>Algebra I</b>                      Framework for <b>FORMATIVE/CLASSROOM</b> Instruction and Assessment                      English language learners communicate information, ideas, and concepts necessary for academic success in the content area of  <b>MATHEMATICS.</b></p>								
<p><b>PA Academic Standard(s)</b>                      Demonstrate comprehension / understanding before reading, during reading, and after reading on grade level texts through strategies such as comparing and contrasting texts, describing context, analyzing positions and arguments, and citing evidence in text. 1.1.8.D.                      Listen critically and respond to others in small and large group situations. 1.6.8.A.</p> <ul style="list-style-type: none"> <li>Respond with grade level appropriate questions, ideas, information, or opinions.</li> </ul> <p>Demonstrate the capability of justifying any step in an equation solving process by citing an algebraic property. 2.4.A1.A.                      Evaluate and simplify not understood algebraic expressions and solve and graph linear equations and inequalities. 2.8.A1.B.                      Identify and represent patterns algebraically and/or graphically. 2.8.A1.C.                      Demonstrate an understanding and apply properties of functions (domain, range) and characteristics of linear functions. 2.8.A1.D.                      Use combinations of symbols and numbers to create expressions, equations, and inequalities in two or more variables, systems of equations, and inequalities, and functional relationships that model problem situations. 2.8.A1.E.                      Interpret the results of solving equations, inequalities, systems of equations, and systems of inequalities in the context of the situation that motivated the model. 2.8.A1.F.</p>								
<b>Listening</b>								
Concepts	Competencies	Vocabulary	Level 1 Entering	Level 2 Beginning	Level 3 Developing	Level 4 Expanding	Level 5 Bridging	
Slope  Algebraic properties and processes  Functions and multiple representations  Linear relationships: equation and inequalities in one and two variables  Linear system of equations and inequalities  Analysis of one and two variable (univariate and bivariate) data	Use algebraic properties and processes in mathematical situations and apply them to solve real world problems.  Represent functions (linear and non-linear) in multiple ways, including tables, algebraic rules, graphs and contextual situations, and make connections among these representations. Choose the appropriate functional representation to model a real world situation and solve problems relating to that situation.	Absolute value Central tendency Combination Domain Equation Equivalent forms Expression Inequality Irrational number Line of best fit Linear function Maximum Patterns Perpendicular lines	Write simple equations based on verbal descriptions of events and solve following verbal prompts.	Draw pictures of scenarios based on oral descriptions. (e.g. Luis has the number of Jordan's books plus 15).	Talk a peer through solving a linear equation by providing oral instructions.	Listen to find and correct errors <i>deliberately included</i> in peer-recited solution to graphing an inequality.	Predict which functions real-life scenarios will exemplify in group discussion with support and sound mathematical reasoning.	<b>Level 6- Reaching</b>

	<p>Write, solve, graph, and interpret linear equations and inequalities to model relationships between quantities.</p> <p>Write, solve and interpret systems of two linear equations and inequalities using graphing and algebraic techniques.</p> <p>Display, analyze, and make predictions using univariate and bivariate data.</p>	<p>Prime range (1) Range (2) Rational numbers Reciprocal</p>						
<b>Reading</b>								
<b>Concepts</b>	<b>Competencies</b>	<b>Vocabulary</b>	<b>Level 1 Entering</b>	<b>Level 2 Beginning</b>	<b>Level 3 Developing</b>	<b>Level 4 Expanding</b>	<b>Level 5 Bridging</b>	
			<p>Read mathematical sentences from left to right using proper terminology. <math>(x^2 + \sqrt{4} &gt; \frac{5}{9})</math></p> <p>Read a graphing calculator to determine the answer to a multiple choice question.</p>	<p>Read a graph to locate the y- and x- intercepts on a graph.</p> <p>Read the slope from a graph with a non-traditional scale.</p> <p>Read a table of information and match to a graph and equation independently.</p>	<p>Read a graph of an inequality and re-create the original equation and create plausible circumstances from which it was generated.</p>	<p>Compile and label essential information to write a linear equation or inequality in an open-ended question or word problem.</p>	<p>Read a company's financial report and determine whether linear functions are accurate representations of profit margin.</p>	<b>Level 6- Reaching</b>

<b>Content Stems</b>				
Graph linear equations and inequalities Read charts and graphs Problem solving Model scenarios	Represent scenarios Mathematically, recognizing real-world applications	Make recommendations Communicate mathematically Apply Real-world scenarios Work backwards	Engage in mathematical discourse Find and correct errors in mathematical thinking Make recommendations	Predict events Use professional documents Mathematical documents
<b>Instructional Support</b>				
Algebra tiles Real-life objects Personal dictionaries Direct translation Matching exercises Traffic lighting Infuse text with graphics	Algebra tiles Real-life objects Personal dictionaries Peer translation Matching exercises Write-think-pair-share	Algebra tiles Peer collaboration Personal dictionaries Graphic organizers Whiteboards, ask three before me	Algebra tiles Peer modeling Cooperative learning Student-made posters	Professional samples Peer revisions Peer-made rubrics Self-assess progress Graphic organizers
<b>Language Use</b>				
<b>Listening</b> Utilize manipulatives by listening Follow sequences of instructions Recognize words and short phrases	<b>Listening</b> Create sketches or representations of information Translate for peers Respond to verbal questioning Recognize sentences	<b>Listening</b> Peer collaboration Organize information from presentations into graphic organizers	<b>Listening</b> Critique peer explanations Find and correct errors in mathematical thinking Support claims with mathematical language	<b>Listening</b> Synthesize information through group discussion and evaluate accuracy and valid arguments

NEW

			<p><b>Reading</b>          Algebra tiles as quantities and represent mathematical representations          Read with algebra tiles          Use graphing calculator to answer a question</p>	<p><b>Reading</b>          Read simple word problems and represent scenarios with algebra tiles          Read peer answers and provide feedback</p>	<p><b>Reading</b>          Read scenarios and determine how mathematical concepts can be applied to the real life scenarios in small groups.</p>	<p><b>Reading</b>          Read open-ended items and extract relevant information.</p>	<p><b>Reading</b>          Read grade-level text          Read professional documents          Read an article or story to formulate theories and test hypotheses</p>	
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