High School
Algebra 1
Framework for FORMATIVE/CLASSROOM Instruction and Assessment
Productive Domains of **Speaking and Writing**

Pennsylvania English Language Proficiency Standard 3
English language learners communicate information, ideas, and concepts necessary for academic success in the content area of Mathematics.

Pennsylvania Core Standards

Speaking and Listening
CC.1.5.9-10.A Initiate and participate effectively in a range of collaborative discussions on grade level topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.
CC.1.5.11-12.A Initiate and participate effectively in a range of collaborative discussions on grade level topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

Mathematics
CC.2.2.HS.D.10 Represent, solve and interpret equations/inequalities and systems of equations/inequalities algebraically and graphically.
A2.1.2.1.3, A2.1.2.1.4, A2.1.2.2.2, A2.1.3.1.1, A2.1.3.1.3, A2.1.3.1.4, A2.1.3.2.1, A2.1.3.2.2, A2.2.2.1.2, A2.2.2.1.3

The PA ELL Overlays for English Language Arts and Mathematics assist educators in developing instructional units, lessons, or activities that are meaningful and comprehensible for English language learners. They illustrate the dynamic process of adapting instruction and assessment based on the English language proficiency of students. The PA ELL Overlays for English Language Arts and Mathematics are models that exemplify adaptations for a select instructional context and provide resources to extend this process to other instructional units.

Speaking Model Performance Indicator (MPI)							
Classroom Context: Analyze and solve equations and inequalities.							
Cognitive Function: Students at all levels of English proficiency will ANALYZE and SOLVE equations and inequalities.							
Concepts	**Competencies**	**Vocabulary and Topic Related Language**	**Proficiency Level 1 Entering**	**Proficiency Level 2 Emerging**	**Proficiency Level 3 Developing**	**Proficiency Level 4 Expanding**	**Proficiency Level 5 Bridging**
Equations and inequities	Write and/or identify linear equations in various forms (slope-intercept, point-slope, standard, etc.).	Equation Equivalent Expression Forms Inequality Linear Reciprocal Constraints	Supply words about a system of linear equations using a sentence frame, following explicit, repeated examples, as modeled and monitored by the teacher.	Sequence the oral steps to graph a system using a graphing calculator with teacher support.	Organize a verbal problem scenario into a system of linear equations with a partner.	Dispute or validate claims delivered verbally based on the solution to a system of equations in a problem scenario with a partner.	Identify implications for a business model based on the system of equations and make recommendations to the business.

Writing Model Performance Indicator (MPI)							
Classroom Context: Analyze and solve equations and inequalities.							
Cognitive Function: Students at all levels of English proficiency will ANALYZE and SOLVE equations and inequalities.							
Concepts	**Competencies**	**Vocabulary and Topic Related Language**	**Proficiency Level 1 Entering**	**Proficiency Level 2 Emerging**	**Proficiency Level 3 Developing**	**Proficiency Level 4 Expanding**	**Proficiency Level 5 Bridging**
Equations and inequalities	Write and/or identify linear equations in various forms (slope-intercept, point-slope, standard, etc.).	Equation Equivalent Expression Forms Inequality Reciprocal	Copy the process used to solve a system of linear equations, following explicit, repeated examples, as modeled and monitored by the teacher.	Solve a simple system of linear equations using a guided model with teacher support.	Solve a system of linear equations that represents a real-world scenario using a graphic organizer with a partner.	Respond to a justification of the solution of an algebraic system of linear equations using a technical language word bank with a partner.	Solve a word problem based on a system of linear equations and explain the context of the answer.

Building Productive Model Performance Indicators (MPI) to differentiate and scaffold instruction per English language proficiency level by adjusting the ***language function*** and ***support***.							
Classroom Context:							
Cognitive Function: Students at all levels of English proficiency will							
Concepts	**Competencies**	**Vocabulary and Topic Related Language**	**Proficiency Level 1 Entering**	**Proficiency Level 2 Emerging**	**Proficiency Level 3 Developing**	**Proficiency Level 4 Expanding**	**Proficiency Level 5 Bridging**
			Language Function (differentiated measurable expectations of student language use increasing in complexity and amount from English language proficiency level 1 to level 5)				
			Label the process used to . . . Produce short answer responses Supply missing information in sentence frames	Take notes Label Illustrate Enumerate	Interpret Compare Distinguish Sequence Explain	Assess Revise Construct	Analyze Design Prove
			Content Stem (selected focus of grade-level curriculum for all students remains constant across all English language proficiency levels)				
			Instructional Support (scaffolds to accompany explicit instruction with multiple opportunities for student response and feedback decreasing in degree from English language proficiency level 1 to level 5. "I do, We do, You do")				
			Visual support Sensory support	Visual support Sensory support	Visual support Sensory support	Visual support Realia	Visual support Video

			Realia Video Graphic organizers Tiered assignments Partner Flexible grouping First language support Re-teaching/Pre-teaching Modeling Conferences with teacher	Realia Video Graphic organizers Tiered assignments Partner Flexible grouping First language support Re-teaching/Pre-teaching Modeling Conferences with teacher Build background knowledge and connections to topic	Realia Video Graphic organizers Tiered assignments Partner Flexible grouping First language support Re-teaching/Pre-teaching Modeling Conferences with teacher Build background knowledge and connections to topic Rubrics Checklists Reciprocal teaching opportunities within groups and the class as a whole	Video Graphic organizers Tiered assignments Partner Flexible grouping Front load vocabulary Modeling Conferences with teacher Build background knowledge and connections to topic Rubrics Checklists Reciprocal teaching opportunities within groups and the class as a whole	Graphic organizers Partner/group work Front load vocabulary Modeling Conferences with teacher Build background knowledge and connections to topic Rubrics Checklists Reciprocal teaching opportunities within groups and the class as a whole