

Grades 3-5 Mathematics

Framework for FORMATIVE/CLASSROOM Instruction and Assessment Receptive Domains of **Listening and Reading**

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.1.5.3.A Engage effectively in a range of collaborative discussions on grade level topics and texts, building on others' ideas and expressing their own clearly.

CC.1.5.4.A Engage effectively in a range of collaborative discussions on grade level topics and texts, building on others' ideas and expressing their own clearly.

CC.1.5.5.A Engage effectively in a range of collaborative discussions on grade level topics and texts, building on others' ideas and expressing their own clearly.

Mathematics

CC.2.1.3.C.1 Explore and develop an understanding of fractions as numbers.

M03.A-F.1.1.1, M03.A-F.1.1.2, M03.A-F.1.1.3, M03.A-F.1.1.4, M03.A-F.1.1.5

CC.2.1.4.C.1 Extend the understanding of fractions to show equivalence and ordering.

M04.A-F.1.1.1, M04.A-F.1.1.2

CC.2.1.5.C.1 Use the understanding of equivalency to add and subtract fractions.

M05.A-F.1.1.1

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.

Listening Model Performance Indicator (MPI)

Classroom Context: Understand fractions and fraction problems.

Cognitive Function: Students at all levels of English proficiency will UNDERSTAND fractions and fraction problems.

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
Fractions	<p>Develop an understanding of fractions as numbers.</p> <p>Demonstrate an understanding of fraction equivalence.</p> <p>Explain operations as they pertain to fractions.</p>	<p>Denominator</p> <p>Equivalent fractions</p> <p>Estimate</p> <p>Fraction</p> <p>Numerator</p> <p><u>Pattern</u></p> <p>Consequently</p> <p>In part</p> <p>As a whole</p> <p>In conclusion</p> <p>With a focus on</p> <p>First, Second, Next, Last . .</p>	<p>Identify proportional representation of objects from oral directions and visuals following explicit, repeated examples, as modeled and monitored by the teacher.</p>	<p>Match everyday examples of fractions with oral descriptions using graphic or visual support</p>	<p>Follow multi-step directions to change proportional representations of fractions in graphs or visuals.</p>	<p>Analyze everyday situations involving fractions from oral scenarios with graphic support.</p>	<p>Apply ways of using fractions in grade-level situations from oral discourse.</p>

Reading Model Performance Indicator (MPI)

Classroom Context: Understand fractions and fraction problems.

Cognitive Function: Students at all levels of English proficiency will UNDERSTAND fractions and fraction problems.

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
Fractions	<p>Develop an understanding of fractions as numbers.</p> <p>Demonstrate an understanding of fraction equivalence.</p> <p>Explain operations as they pertain to fractions.</p>	<p>Denominator</p> <p>Equivalent fractions</p> <p>Estimate</p> <p>Fraction</p> <p>Numerator</p> <p>Pattern</p> <hr/> <p>Consequently</p> <p>In part</p> <p>As a whole</p> <p>In conclusion</p> <p>With a focus on</p> <p>First, Second, Next, Last . . .</p>	Sort fractional representations of everyday objects with a partner following explicit, repeated examples, as modeled and monitored by the teacher.	Compare or rank fractional representations of everyday objects with a partner.	Follow listed instructions that involve hands-on math using fractions.	Follow written instructions to determine when and how to apply math in real-life situations involving fractions.	Interpret various representations of numbers in real-life problems explaining operations pertaining to fractions

			Partner	Word bank	Word bank	Marking text	Checklists
			Flexible grouping	Rubrics	Marking text	Word bank	Partner/roup work
			First language support	Checklists	Rubrics	Rubrics	Modeling
			Modeling	Partner	Checklists	Checklists	Frontload vocabulary
			Re-teaching and/or pre-teaching	Flexible grouping	Partner	Partner/group work	Activate/build prior knowledge
				First language support	Flexible grouping	Modeling	
				Modeling	First language support	Frontload vocabulary	
				Re-teaching and/or pre-teaching	Modeling	Activate/build prior knowledge	
				Activate/build prior knowledge	Re-teaching and/or pre-teaching		
					Activate/build prior knowledge		