

**Grade 4-5**

Framework for **FORMATIVE/CLASSROOM** Instruction and Assessment

English language learners communicate information, ideas, and concepts necessary for academic success in the content area of **MATHEMATICS.**

**PA Academic Standard(s)**

Listen critically and respond to others in small and large group situations. 1.6.5.A.

- Respond with grade level appropriate questions.

Use concrete objects to demonstrate the meaning of measurement quantities (e.g., perimeter, area, weight, capacity). 2.3.5.A.

Select and use appropriate instruments and units for measuring quantities to a specified level of accuracy. 2.3.5.B.

Calculate perimeter and area, and sums and differences of measurements. 2.3.5.C.

Estimate and verify measurements of length, perimeter, area, **volume**, capacity, temperature, time, weight, and angles. 2.3.5.F.

Identify, describe, and define 1-, 2-, and 3-dimensional shapes and their related parts, and classify and compare 2- and 3- dimensional shapes on the basis of their properties. 2.9.5.A.

**Listening**

Concepts	Competencies	Vocabulary	Level 1 Entering	Level 2 Beginning	Level 3 Developing	Level 4 Expanding	Level 5 Bridging	
Surface Area and Volume: units, strategies and tools to find measurements; and the development of formulas	Extend informal understanding of volume of solids to the measurement of capacity and weight or mass.  Understand volume as a measurable attribute and select appropriate units, strategies and tools to solve problems or make estimations.	Capacity Centimeters, millimeters, meters Coordinate system Equation Inches, feet, yards, miles, pounds Models Number Patterns Perimeter Ruler, scale, cylinder Volume	Select the appropriate tool to complete a visually supported measurement task as directed by the teacher.	Follow two-step oral directions to determine appropriate measurements working with a partner.	Follow multi-step oral directions to select the unit of measure needed to determine the degree of accuracy in small groups.	Compare and contrast the functions of various measurement tools based on oral descriptions using realia.	Select and apply appropriate tools and formulae to measure weight, mass, capacity, area, and perimeter based on oral descriptions working with a partner.	<b>Level 6- Reaching</b>

Reading								
Concepts	Competencies	Vocabulary	Level 1 Entering	Level 2 Beginning	Level 3 Developing	Level 4 Expanding	Level 5 Bridging	
Division: understanding of strategies, fluency	<p>Develop fluency with and an understanding of efficient strategies for division (models, place value, properties of operations, and the relationship between multiplication and division) and use them to solve problems.</p> <p>Develop an understanding of and fluency with addition and subtraction of fractions and decimals (models, place value, properties of addition and subtraction of decimals) to solve problems in a variety of contexts, including measurement.</p> <p>Differentiate fact from opinion across multiple texts.</p>	Capacity Centimeters, millimeters, meters Equation Inches, feet, yards, miles, pounds Models Number coordinate system (e.g. GPS System, compass, maps) Patterns Perimeter Ruler, scale, cylinder Volume	Match names and definitions of two- and three-dimensional figures with pictures or models.	Identify specific attributes about two- and three-dimensional shapes using a picture dictionary.	Identify two- or three-dimensional figures based on written descriptions using a graphic organizer.	Classify two- or three-dimensional figures based on written descriptions of their attributes working with a partner.	Draw conclusions about graphically represented geometric concepts using grade level texts.	<b>Level 6- Reaching</b>
			<b>Content Stems</b>					
			Measurement Compare/ contrast	Measurement Compare/ contrast	Measurement Compare/ contrast Classify	Measurement Compare/ contrast Classify	Measurement Compare/ contrast Classify Analyze Draw conclusions	
			<b>Instructional Support</b>					
			Labels, pictures, graphics Manipulatives Model Amplify vocabulary	Labels, pictures, graphics Model Amplify vocabulary	Graphic organizers Small group work	Think pair- share Modeling Think-aloud Demonstrate	Demonstrate	
			<b>Language Use</b>					
			Points to Match Selects Use short answer response	Repeats routine phrases and definition	Uses routine phrases and definitions	Produces phrases and definitions based on attributes	Fluently produces independent understand- ing	