Kindergarten Mathematics

The purpose of this document is to clarify what students should know and be able to do in Quarter 2.

The Competencies listed in the table below are developed from the Texas Essential Knowledge and Skills (TEKS) for that grade level. The chart defines which quarter the Competency is reported (Q1 = Grading Period 1, Q2 = Grading Period 2, etc.).

Teachers will report on the competencies using the Grading Progressions which are comprised of three proficiency levels (developing (DV), progressing (PG), and proficient (PF)) and defines the knowledge and skills students will master on their pathway to proficiency. The Grading Progressions for each Competency are below the yearlong outline of the Competencies. The Grading Progressions define what a student knows and is able to do related to that competency at the end of a unit or quarter. To see what success on each individual competency looks like in a particular unit, please see the Public Overview document for the course.

Students who receive a mark of "Proficient" meet the grade level expectation for that Competency.

Competencies	Q 1	Q 2	Q 3	Q 4
C1 — Problem Solving The student analyzes word problems, utilizes a strategy, creates multiple representations, communicates mathematical thinking (oral and written), and determines an answer or solution.				**X**
C2— Numeration The student understands how to represent and compare numbers within real-world context.	**X**		**X**	
C3— Operations The student develops an understanding of addition and subtraction within real-world context in order to solve problems.	**X**	**X**	**X**	**X**
C4— Geometry The student analyzes attributes of two-dimensional shapes and three-dimensional solids within real-world context to develop generalizations about their properties.		**X**		
C5— Measurement The student compares measurable attributes within real-world context.				**X**
C6—Data Analysis The student collects and organizes data to make it useful for interpreting information within real-world context.		**X**		**X**

Learning Progression for Competency 3: Operations

The student develops an understanding of addition and subtraction within real-world context in order to solve problems.

Add and Subtract - Numbers within 0-10

Developing	Progressing	Proficient
Compose and decompose numbers up to 10 with objects and pictures • ten frames • number paths • story mats Identify the action of a word problem as joining or separating	Act out a word problem involving addition or subtraction to solve using • hand gestures and objects • story mats and objects • drawing pictures that represent the context (e.g. Using stick figures to represent a story problem about children)	Model the act of joining and solve the word problem using: • story mats • ten frames • number paths • number bonds • part-whole models Model the act of separating and solve the word problem using: • story mats • ten frames • number paths • number bonds • part-whole models Explain strategies used to solve problems

Learning Progression for Competency 4: Geometry

The student analyzes attributes of two-dimensional shapes and three-dimensional solids within real-world context to develop generalizations about their properties.

Developing	Progressing	Proficient
Identify regular and irregular two-dimensional shapes including: • circles • triangles • rectangles • squares (special rectangles) Describe the attributes of two-dimensional shapes with language such as sides and corners. Build or draw two-dimensional shapes using a variety of materials when given the name of the shape	Classify and sort regular and irregular shapes based on their attributes regardless of how they are turned or their size Explain how shapes were classified or sorted Describe the attributes of two-dimensional shapes using both informal and formal language such as lines, vertices, and corners Describe the attributes of three-dimensional figures • flat • curved • surface • edges • vertices or corners	Identify three-dimensional solids found in the real-world • cylinder (e.g. can of soup) • cone (e.g. birthday hat) • sphere (e.g. ball) • cube (e.g. tissue box) Describe the attributes of three-dimensional figures including the two-dimensional shapes of their faces • circles • triangles • rectangles • squares Classify and sort regular and irregular real-world three-dimensional shapes based on their attributes regardless of how they are turn or their size

Learning Progression for Competency 6: Data Analysis

The student collects and organizes data to make it useful for interpreting information within real-world context.

Data Analysis - Numbers within 0-10

Developing	Progressing	Proficient
Sort objects into two or three categories Sort data into two or three categories (when given data) Describe the information when given a real-object or picture graph (e.g. Five dogs at the dog park were brown.) Describe the purpose of a real-object graph and a picture graph	Begin a data collection process by asking a question (e.g. What types of pets do the students in my classroom have at home?) Sort self-collected data into two or three categories Describe similarities and differences to justify sorting or categories	Create a real object or picture graph from self-collected data • horizontal • vertical Explain how to create a graph with data that has been sorted Draw conclusions from real-object or picture graph such as: • identify the category with the most or least number of items • compare different categories of data using words like more than, fewer than, and equal to • solve addition and subtraction problems related to the graph