First Grade 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 four 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.

TEKS	Competencies	Q 1	Q 2	Q 3	Q 4
1.1B, 1.1E, 1.1G	**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	X	X	X
1.1A, 1.1C, 1.1D, 1.1F, **1.2B, 1.2F, 1.2G, 1.4C**	**C2 — Numeration** The student understands how to represent and compare numbers within real-world context.	X	X	X	
1.1A, 1.1C, 1.1D, 1.1F, **1.5D, 1.3B, 1.5F**	**C3 — Operations** The student develops an understanding of addition and subtraction within real-world context in order to solve problems.	X	X		X
1.1A, 1.1C, 1.1D, 1.1F, **1.6B**	**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	
1.1A, 1.1C, 1.1D, 1.1F, **1.7C**, 1.7E	**C5 — Measurement** The student selects and uses units to describe length and time within real-world context.				X
1.1A, 1.1C, 1.1D, 1.1F, **1.8B**	**C6 — Data Analysis** The student organizes data to make it useful for interpreting information and solving problems within real-world context.			X	X

Learning Progression for Competency 1: Problem Solving
The student analyzes word problems by determining the important information, utilizing a strategy, creating multiple representations, communicating mathematical thinking (oral and written), and determining an answer.

Developing	Progressing	Proficient
Identify information needed to solve the problem Represent the **values** of the problem using objects or pictures of objects	Create and use a **teacher-selected** representation to organize or record and communicate mathematical thinking such as: • number sentence • various types of manipulatives • various types of pictorial representations • graphs	Create and use **self-selected multiple** representations to organize or record and communicate mathematical thinking such as: • number sentence • various types of manipulatives • various types of pictorial representations • graphs • explaining the process to solve
	Use **teacher-selected strategies** to solve a problem such as: • count objects or picture of objects • number paths • number lines • ten frames • part- whole map (strip diagram) • fact strategies • graphs • estimation • one-to-one correspondence for comparison	Use **self-selected strategies** to solve a problem such as: • count objects or picture of objects • number path • number lines • ten frames • part- whole map (strip diagram) • fact strategies • graphs • estimation • one-to-one correspondence for comparisons
Explain how the objects or pictures of objects represent a number	Explain the process used to solve the problem	Justify an answer by comparing it to a predicted answer

Learning Progression for Competency 2: Numeration

The student understands how to represent and compare numbers within real-world context.

Coins - Numbers up to 99; Compose and Decompose – Numbers up to 99

Developing	Progressing	Proficient
Identify and name coins and represent their value with the cent symbol including • penny • nickel • dime • quarter Skip count by 2s, 5s, and 10s. Write numbers in standard form when given • word form • models Bundle objects such as craft sticks or linking cubes to count by 10s Represent numbers using objects and pictures Describe the value of each digit in a number	Determine the value of a collection of same coins by skip counting (use a cent symbol) • pennies – skip counting by 2s • nickels- skip counting by 5s • dimes- skip counting by 10s Compose numbers from place value models Decompose numbers using objects, pictures, and numbers Use place value strategies to determine a number that is 10 more and 10 less than a given number	Determine the value of a collection of coins including a group of different coins using a cent symbol Determine a collection of coins that would represent an equivalent value Decompose numbers in a variety of ways using objects. Decompose numbers in a variety of ways using pictures. Decompose numbers in a variety of ways using numbers. Represent numbers using expanded form. Explain the connection between expanded form, base ten representations, and place value

Learning Progression for Competency 3: Operations

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

Addition and Subtraction – Numbers within 20

Developing	Progressing	Proficient
Determine the actions of the word problem • joining • separating • comparing sets Explain how the equal sign represents a relationship of equality	Represent **results unknown** word problems involving **joining, separating, and comparing sets** using: • objects • pictorial representations • number sentences	Solve word problems with **results unknown** involving **joining, separating, and comparing sets** using: • objects • pictorial representations • fact strategies (e.g. making 10, doubles, compensation) Explain the strategies used to solve problems using: • spoken words • objects • pictorial models • number sentences