

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
<p>Identify information needed to solve the problem</p> <p>Represent the values of the problem using objects or pictures of objects</p> <p>Explain how the objects or pictures of objects represent a number</p>	<p>Create and use a teacher-selected representation to organize or record and communicate mathematical thinking such as:</p> <ul style="list-style-type: none"> • number sentence • various types of manipulatives • various types of pictorial representations • graphs <p>Use teacher-selected strategies to solve a problem such as:</p> <ul style="list-style-type: none"> • 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 <p>Explain the process used to solve the problem</p>	<p>Create and use self-selected multiple representations to organize or record and communicate mathematical thinking such as:</p> <ul style="list-style-type: none"> • number sentence • various types of manipulatives • various types of pictorial representations • graphs • explaining the process to solve <p>Use self-selected strategies to solve a problem such as:</p> <ul style="list-style-type: none"> • 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 <p>Justify an answer by comparing it to a predicted answer</p>

Learning Progression for Competency 2: Numeration

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

Compose and Decompose – Numbers up to 99; Compare and Order – Numbers up to 99

Developing	Progressing	Proficient
<p>Write numbers in standard form when given</p> <ul style="list-style-type: none"> • word form • models <p>Represent numbers using objects and pictures</p> <p>Bundle objects such as craft sticks or linking cubes to count by 10s</p> <p>Generate a number that is more than or less than a given number</p> <p>Describe the value of each digit in a number</p>	<p>Compose numbers from place value models</p> <p>Decompose numbers using objects, pictures, and numbers</p> <p>Use place value strategies to determine a number that is 10 more and 10 less than a given number</p> <p>Describe comparison using comparative language based on place value using:</p> <ul style="list-style-type: none"> • linking cubes/craft sticks • tens and ones <p>Determine the appropriate symbol to represent a comparison</p>	<p>Decompose numbers in a variety of ways using objects.</p> <p>Decompose numbers in a variety of ways using pictures.</p> <p>Decompose numbers in a variety of ways using numbers.</p> <p>Represent numbers using expanded form.</p> <p>Explain the connection between expanded form, base ten representations, and place value</p> <p>Represent the inverse of a comparison statement and explain why it is true</p> <p>Order numbers based on place value using:</p> <ul style="list-style-type: none"> • linking cubes/craft sticks • open number lines <p>Explain how to order numbers using place value</p>

Learning Progression for Competency 3: Operations

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

Compose and Decompose – Numbers up to 10/Add and Subtract – Numbers within 20

Developing	Progressing	Proficient
<p>Use two addends to compose a number</p> <ul style="list-style-type: none"> • with concrete objects • without concrete objects <p>Decompose a number</p> <ul style="list-style-type: none"> • with concrete • without concrete objects <p>Determines the actions of the word problem</p> <ul style="list-style-type: none"> • joining • separating • comparing sets <p>Explain how the equal sign represents a relationship of equality</p>	<p>Use more than two addends to compose a number</p> <ul style="list-style-type: none"> • with concrete objects • without concrete objects <p>Represent results unknown word problems involving joining and separating using:</p> <ul style="list-style-type: none"> • objects • pictorial representations <p>Solve word problems with results unknown involving joining and separating using:</p> <ul style="list-style-type: none"> • objects • pictorial representations • fact strategies (e.g. making 10, doubles, compensation) 	<p>Represent word problems involving joining and separating where unknowns may be any one of the unknown terms using:</p> <ul style="list-style-type: none"> • objects • pictorial representations • number sentences <p>Solve word problems involving joining and separating where unknowns may be any one of the unknown terms using:</p> <ul style="list-style-type: none"> • objects • pictorial representations • fact strategies (e.g. making 10, doubles, compensation) <p>Explain the strategies used to solve problems using:</p> <ul style="list-style-type: none"> • spoken words • objects • pictorial models • number sentences <p>Generate and solve problem situations when given a number sentence</p>