2nd Grade Math

The purpose of this document is to clarify what students should know and be able to do each grading period.

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 Learning Progressions which are comprised of four proficiency levels (developing (DV), progressing (PG), proficient (PG) and advanced (AV)) and defines the knowledge and skills students will master on their pathway to proficiency. The Learning Progressions for each Competency are below the yearlong outline of the Competencies. Following the Learning Progression are the Competency Success Criteria which define what a student knows and is able to do related to that competency at the end of a unit or quarter.

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 given information, create a plan, solve, and determine reasonableness.	X	X	X	X
C2 – Numeration – Compare and Order The student represents, compares, and orders numbers to 1,200.	X			
C3 – Addition and Subtraction The student represents and solves addition and subtraction problems.	X	X	X	
C4 – Organizing and Analyzing Data The student represents and analyzes data in bar and pictographs.		X		
C6 – Geometry – Classify and Sort The student classifies and sorts 2D shapes and 3D solids.		X		
C7 – Measurement The student measures length and time.			X	X
C5 – Understanding Fractions whole.				X
C8 – Multiplication and Division The student models, solves, and creates situations involving multiplication and division.				X

C1: Problem Solving: The student analyzes given information, create a plan, solve, and determine reasonableness.

Developing	Progressing	Proficient	Advanced
Identifies information in the problem	Identifies and analyzes important information needed to solve the problem	Solves the problem using the important information	*Meets all proficient criteria and...*
Partially represents the problem	Represents the problem	Represents the problem in multiple ways	Solves the problem using multiple representations
Attempts to solve the problem	Determines a correct solution	Determines a correct solution	Explains how multiple representations are connected
	Justifies their thinking, including their representation and the solution	States the solution as it relates to the situation	Connects the problem to similar real-life experiences
	Evaluates the reasonableness of the solution by explaining the sequence of solving the problem	Justifies their thinking, including their representations and the solution	
		Evaluates the reasonableness of the solution using a number sense strategy	

Success Criteria for Proficient in Problem Solving:

The student can:
- use the important information to solve the problem.
- create a plan to solve the problem.
- use models to represent the problem.
    - o strip diagram
    - o graphs
    - o manipulatives
    - o numbers and symbols
    - o number lines
- explain my representation using mathematical language.
- solve the problem.
- state my answer as it relates to the problem.

- explain the strategy I used to solve the problem using mathematical language.
- check my answer for reasonableness.

C2 Numeration – Compare and Order: The student represents, compares, orders numbers to 1,200

Developing	Progressing	Proficient	Advanced
Composes and decomposes a number in one way using concrete models	Composes and decomposes a number in more than one way using concrete models	Composes and decomposes a number in more than one way using concrete and pictorial models	Explains why their composing and decomposing strategies work using place value and the properties of operations
Generates a number that is greater than or less than a given number	Compares whole numbers using place value and comparative language	Compares whole numbers using comparative symbols (<, >, =)	Provides justification for the order of their numbers using place value
Represents a number using words	Locates the position of a number on a number line	Orders and compares whole numbers using place value	Represents a number using multiple expanded forms and explains the relationship between the various forms
Names the whole number that corresponds to a point on a number line	Represents a number using expanded forms		
Represents a number using standard form			

Success Criteria for Proficient in Numeration – Compare and Order:

The student can:
- use concrete and pictorial models to compose numbers up to 1,200 in more than one way.
- use concrete and pictorial models to decompose numbers up to 1,200 in more than one way.
- use place value to compare whole numbers up to 1,200.
    - comparative language
    - numbers
    - symbols
- use place value to order whole numbers up to 1,200.
    - comparative language
    - numbers
    - symbols

C3 – Addition and Subtraction

Developing	Progressing	Proficient	Advanced
Recalls basic addition facts within 20 with automaticity

Adds two-digit numbers using mental strategies and algorithms

Solves one-step word problems involving addition and subtraction | Recalls basic addition and subtraction facts within 20 with automaticity

Adds up to three two-digit numbers using mental strategies and algorithms

Solves one- and two-step word problems involving addition and subtraction

Represents and solve addition and subtraction word problems where result is unknown

Identifies and solves a problem situation involving addition and subtraction when given a number sentence | Adds up to four two-digit numbers and subtracts two-digit numbers using mental strategies and algorithms

Solves multi-step addition and subtraction word problems using a variety of strategies

Represents and solves addition and subtraction word problems where the missing number can be any of the terms

Generates and solves a problem situation involving addition and subtraction when given a number sentence | Meets all proficient criteria and ….

Explains of reasonableness of solution |

Success Criteria for Proficient in Addition and Subtraction:

The student can:
- recall basic facts to add and subtract within 20.
- add up to four two-digit numbers using mental strategies and algorithms.
- subtract two-digit numbers using mental strategies and algorithms.
- solve multi-step word problems involving addition and subtraction up to 1,000 using a variety of strategies based on place value.
- solve multi-step word problems involving addition and subtraction up to 1,000 using algorithms.
- represent addition and subtraction word problems where the missing number can be any of the terms.
- solve addition and subtraction word problems where the missing number can be any of the terms.
- generate a problem situation involving addition and subtraction when given a number sentence.