# Grade 2 Mathematics Year At-A-Glance

## Overview

The Grade 2 *Standards* enhance the understanding of numbers and spatial concepts, covering three-digit numbers. Students will internalize all number combinations up to 20. This fluency will help students tackle both simple and complex problems involving addition or subtraction, with addends and minuends not exceeding 100. Work with solid figures and measurement of length, weight, and volume will be done using U.S. Customary units to the nearest whole unit. Additionally, students will delve into the data cycle which involves creating questions, gathering data, organizing, analyzing, and presenting findings.

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|---|---|---|---|
| **Quarter 1** | **Unit 1: Building a Mathematical Community Through the Data Cycle (about 9 days)** | **Unit 2: Addition and Subtraction: Part 1 (about 16 days)** | **Unit 3: Number Sense: Part 1 (about 25 days)** |
| **Quarter 2** | **Unit 4: Addition and Subtraction: Part 2 (about 19 days)** | **Unit 5: Geometry (about 10 days)** | **Begin Unit 6: Number Sense: Part 2 (about 10 days)** |
| **Quarter 3** | **Complete Unit 6: Number Sense: Part 2 (about 11 days)** | **Unit 7: Addition, Subtraction, Patterns, and Data (about 22 days)** | **Begin Unit 8: Fractions (about 12 days)** |
| **Quarter 4** | **Complete Unit 8: Fractions (about 9 days)** | **Unit 9: Addition and Subtraction: Part 4 (about 19 days)** | **Unit 10: Measurement (about 14 days)** |

** 2.CE.1e should be addressed throughout the year.

Quarter 1: August 19 – October 31 (50 Days)

| Quarter | Unit | Suggested Time | Standards of Learning |
|---|---|---|---|
| Quarter 1 | Unit 1: Building a Mathematical Community Through the Data Cycle | about 9 days | 2.PS.1 The student will apply the data cycle (pose questions; collect or acquire data; organize and represent data; and analyze data and communicate results) with a focus on pictographs and bar graphs. |
| | Unit 2: Addition and Subtraction: Part 1 | about 16 days | 2.CE.1 The student will recall with automaticity addition and subtraction facts within 20 and ~~estimate~~, represent, solve, and justify solutions to single-step ~~and multistep~~ problems, including those in context, using addition and subtraction with whole numbers where addends or minuends do not exceed ~~100~~. [focus on addends or minuends to 20 with single-step contextual problems; the strategies count on, count back, doubles, inverse relationships; and the commutative and identity properties of addition] |
| | Unit 3: Number Sense: Part 1 | about 25 days | 2.NS.1 The student will utilize flexible counting strategies to determine and describe quantities up to ~~200~~. [focus to100]<br>2.NS.2 The student will demonstrate an understanding of the ten-to-one relationships of the base 10 number system to represent, compare, and order whole numbers up to ~~999~~. [focus to 200]<br>2.NS.4 The student will solve problems that involve counting and representing money amounts up to ~~$2.00~~. [focus to $1.00]<br>2.PFA.1 The student will describe, extend, create, and transfer repeating and increasing patterns (limited to addition of whole numbers) using various representations. [focus on skip counting patterns] |

** 2.CE.1e should be addressed throughout the year.

Quarter 2: November 6 – January 17 (39 Days) Quarter 2 Unit Guides will be released on October 16, 2024

| Quarter | Unit | Suggested Time | Standards of Learning |
|---|---|---|---|
| Quarter 2 | Unit 4: Addition and Subtraction: Part 2 | about 19 days | 2.CE.1 The student will recall with automaticity addition and subtraction facts within 20 and ~~estimate~~, represent, solve, and justify solutions to single-step and multistep problems, including those in context, using addition and subtraction with whole numbers where addends or minuends do not exceed ~~100~~. [focus to 20; the strategies near doubles, make-a-ten and compensation; the associative property of addition]<br>2.NS.1 The student will utilize flexible counting strategies to determine and describe quantities up to ~~200~~. [focus on by 5s, 10s, 25s to 150]<br>2.NS.4 The student will solve problems that involve counting and representing money amounts up to ~~$2.00~~. [focus to $1.50] |
| | Unit 5: Geometry | about 10 days | 2.MG.3 The student will identify, describe, and create plane figures (including circles, triangles, squares, and rectangles) that have at least one line of symmetry and explain its relationship with congruency.<br>2.MG.4 The student will describe, name, compare, and contrast plane and solid figures (circles/spheres, squares/cubes, and rectangles/rectangular prisms).<br>2.PFA.1 The student will describe, extend, create, and transfer repeating and increasing patterns (limited to addition of whole numbers) using various representations. [focus on object and picture patterns] |
| | Begin Unit 6: Number Sense: Part 2 | about 10 days | 2.NS.1 The student will utilize flexible counting strategies to determine and describe quantities up to 200.<br>2.NS.2 The student will demonstrate an understanding of the ten-to-one relationships of the base 10 number system to represent, compare, and order whole numbers up to 999.<br>2.NS.4 The student will solve problems that involve counting and representing money amounts up to $2.00. |

** 2.CE.1e should be addressed throughout the year.

Quarter 3: January 23 – March 27 (45 Days)

Quarter 3 Unit Guides will be released on January 2, 2025

| Quarter | Unit | Suggested Time | Standards of Learning |
|---|---|---|---|
| Quarter 3 | Complete Unit 6: Number Sense: Part 2 | about 11 days | 2.NS.1 The student will utilize flexible counting strategies to determine and describe quantities up to 200.<br>2.NS.2 The student will demonstrate an understanding of the ten-to-one relationships of the base 10 number system to represent, compare, and order whole numbers up to 999.<br>2.NS.4 The student will solve problems that involve counting and representing money amounts up to $2.00. |
| | Unit 7: Addition, Subtraction, Patterns, and Data | about 22 days | 2.CE.1 The student will recall with automaticity addition and subtraction facts within 20 and estimate, represent, solve, and justify solutions to single-step and multistep problems, including those in context, using addition and subtraction with whole numbers where addends or minuends do not exceed 100. [embed in graphing, numbers do not require regrouping]<br>2.PS.1 The student will apply the data cycle (pose questions; collect or acquire data; organize and represent data; and analyze data and communicate results) with a focus on pictographs and bar graphs.<br>2.PFA.1 The student will describe, extend, create, and transfer repeating and increasing patterns (limited to addition of whole numbers) using various representations. [focus on numerical patterns to 200] |
| | Begin Unit 8: Fractions | about 21 days | 2.NS.3 The student will use mathematical reasoning and justification to solve contextual problems that involve partitioning models into equal-sized parts (halves, fourths, eighths, thirds, and sixths). |

** 2.CE.1e should be addressed throughout the year.

Quarter 4: April 1 – June 12 (46 Days)

Quarter 4 Unit Guides will be released on March 11, 2025

| Quarter | Unit | Suggested Time | Standards of Learning |
|---|---|---|---|
| Quarter 4 | Complete Unit 8: Fractions | | 2.NS.3 The student will use mathematical reasoning and justification to solve contextual problems that involve partitioning models into equal-sized parts (halves, fourths, eighths, thirds, and sixths). |
| | Unit 9: Addition and Subtraction: Part 4 | about 19 days | 2.CE.1 The student will recall with automaticity addition and subtraction facts within 20 and estimate, represent, solve, and justify solutions to single-step and multistep problems, including those in context, using addition and subtraction with whole numbers where addends or minuends do not exceed 100. |
| | Unit 10: Measurement | about 14 days | 2.MG.1 The student will reason mathematically using standard units (U.S. Customary) with appropriate tools to estimate, measure, and compare objects by length, weight, and liquid volume to the nearest whole unit.<br>2.MG.2 The student will demonstrate an understanding of the concept of time to the nearest five minutes, using analog and digital clocks. |

** 2.CE.1e should be addressed throughout the year.