



MATH SYLLABUS

School Year	2026-2027
Subject	Math
Grade Level	G2
Teacher	Mr. Charles Marks and Mr. Eric Williams
Email	cmarks@dishs.tp.edu.tw , ewilliams@dishs.tp.edu.tw

COURSE DESCRIPTION:

The second-grade mathematics curriculum builds extensively on foundational first-grade concepts and uses the Savvas enVision Mathematics program. Fully aligned with the Common Core State Standards (CCSS), this course is engineered to develop deep conceptual understanding, procedural skill, and real-world application.

The construction of mathematical knowledge in second grade relies on a rich combination of hands-on manipulatives, interactive digital tools, and purposeful problem-solving discoveries. Guided by the enVision philosophy, learning begins with a problem-based situation where students explore math through their own experiences and real-life contexts. This is paired with explicit visual learning strategies—such as open number lines, bar diagrams, and place-value models—that seamlessly bridge the gap between concrete experiences and abstract mathematical notation. Through standards-based math practices, students learn to construct viable arguments, critique others' reasoning, and see mathematics as a cohesive, logical tool.

The Grade 2 curriculum is focused on four critical areas defined by the CCSS and supported by the enVision framework:

1. **Fluency with Addition and Subtraction:** Students develop a deep understanding of place value up to 1,000 and use this foundation to master addition and subtraction within 100, while extending those skills to 3-digit numbers. Memory and mental strategies are strengthened alongside formal algebraic thinking. Students identify properties of operations (commutative and associative) and solve a wide variety of one- and two-step word problems involving real-world situations.
2. **Foundations for Multiplication (Arrays and Foundations):** Students explore the building blocks of multiplication by working with equal groups of objects. They use repeated addition, build rectangular arrays, and investigate number patterns to determine whether a group of objects is even or odd.
3. **Measurement and Data (Length, Time, Money, and Graphs):** Students learn the systems and processes of measurement by selecting and using appropriate tools (rulers, yardsticks, meter sticks) to measure length in standard units (inches, feet, centimeters, meters). They apply these measurement skills to represent data on line plots. Additionally, students master reading time to the nearest five minutes



(a.m. and p.m.), solving word problems involving dollar bills and coins, and interpreting data using bar graphs and picture graphs.

4. Geometry (Shapes and Fractions): Students investigate, describe, and analyze the specific attributes of two-dimensional shapes (triangles, quadrilaterals, pentagons, hexagons) and three-dimensional solids (cubes, cylinders, prisms). They apply this geometric understanding to partition shapes into equal shares, laying the vital groundwork for understanding fractions as halves, thirds, and fourths.

COURSE OBJECTIVES: By the end of the semester/school year, (SWBAT) Students will be able to:

Quarter 1

Topic 1: Fluently Add and Subtract Within 20

- Use strategies such as doubles, near doubles, and making a ten to solve addition facts up to 20.
- Use counting on, counting back, and relationship-based strategies (thinking addition to solve subtraction) to master subtraction facts up to 20.
- Identify and apply patterns in addition and subtraction facts.
- Solve one-step addition and subtraction word problems involving situations of adding to, taking from, putting together, and taking apart.
- Construct mathematical arguments to explain why a chosen addition or subtraction strategy works.

Topic 2: Work with Equal Groups

- Identify numbers up to 100 as even or odd by pairing objects or counting by twos.
- Use repeated addition to find the total number of objects arranged in rectangular arrays.
- Write an equation with equal addends to represent a rectangular array up to 5 rows and 5 columns.
- Model and solve real-world word problems using rectangular arrays.

Topic 3: Add Within 100 Using Strategies

- Add tens and ones using a hundred chart to visualize mental math.
- Use an open number line to model adding 2-digit numbers by making jumps of tens and ones.
- Break apart 2-digit numbers into tens and ones to make them easier to add.
- Apply the compensation strategy (adjusting numbers to make a "friendly" number) to add 2-digit numbers mentally.
- Solve one- and two-step word problems using a variety of addition strategies.



Topic 4: Fluently Add Within 100

- Use place-value models and drawings (like base-ten blocks) to represent and add 2-digit numbers.
- Add 2-digit numbers using the partial sums strategy.
- Add 2-digit numbers accurately using the standard algorithm, understanding when and why to regroup 10 ones as 1 ten.
- Use place-value strategies and properties of operations to add up to three or four 2-digit numbers at a time.
- Analyze and solve one- and two-step word problems involving totals within 100.

Quarter 2

Topic 5: Subtract Within 100 Using Strategies

- Use a hundred chart to mentally subtract tens and ones from a 2-digit number.
- Use an open number line to model 2-digit subtraction by counting back or counting up to find the difference.
- Break apart 2-digit numbers into tens and ones to simplify subtraction problems.
- Apply the strategy of compensation (adjusting numbers to make a "friendly" number) to subtract 2-digit numbers mentally.
- Use addition and relationship-based strategies (missing addends) to solve 2-digit subtraction problems.

Topic 6: Fluently Subtract Within 100

- Use place-value blocks and drawings to represent 2-digit subtraction and determine when to regroup a ten into 10 ones.
- Subtract 2-digit numbers using the partial differences strategy.
- Subtract 2-digit numbers accurately using the standard algorithm, understanding the place-value mechanics of regrouping.
- Use addition to check subtraction answers and verify calculations.
- Analyze and solve one- and two-step word problems involving subtraction within 100.

Topic 7: Solving Problems Involving Addition and Subtraction

- Model and solve one-step addition and subtraction word problems using bar diagrams to represent parts and wholes.
- Solve two-step word problems by breaking them into smaller parts and writing separate equations for each step.
- Create and solve word problems based on given equations or visual diagrams.
- Use a variety of strategies (number lines, place value, properties of operations)



to solve comparison word problems (e.g., "how many more" or "how many fewer").

PRIMARY TEXTBOOKS AND OTHER RESOURCES:

1. enVision Mathematics Common Core by Savvas Volumes 1 & 2
2. enVision Mathematics Common Core by Savvas Additional Practice Workbook
3. Savvas Common Core Standards Practice Workbook

GRADING SYSTEM/ASSESSMENT:

Students will be assessed through class participation, observations, homework, classwork, quizzes/tests, oral responses, projects, and quarterly exams. The student's final grade will be computed mainly based on three parts: performance tasks (homework and classwork), quizzes, and quarterly exams. Each part is weighted at one-third of the total course grade.

Quizzes will relate to current and previous topics. A quiz may be given at any time during any class period—immediately after a lecture, at the beginning or end of a class, etc. Students absent from class for a test or quiz must make arrangements to take it at another time.

You must complete the assigned worksheets/Homework sections. Worksheets/Homework Sections and test papers will be checked for completeness and returned. Scores will be given.

ADDITIONAL INFORMATION:

Please always check Google Classroom for homework and announcements.

ACADEMIC DISHONESTY:

Academic Dishonesty means employing a method or technique or engaging in conduct in an academic endeavor that contravenes the standards of ethical integrity expected at DIS.

Academic dishonesty includes but is not limited to the following:

- Purposely incorporating the ideas, words, sentences, paragraphs, or parts thereof without appropriate acknowledgment and representing the product as one's work;
- Representing another's intellectual work, such as photographs, paintings, drawings, sculpture, research, or the like, as one's own, including failure to attribute content to an AI.
- Employing a tutor, using Artificial Intelligence without acknowledgment, getting a parent to write a paper or do an assignment, and paying for an essay to be written by someone else and presented as the student's work.
- Committing any act that a reasonable person would conclude, when informed of the evidence, to be a dishonest means of obtaining or attempting to obtain credit for academic work.

Any act of academic dishonesty will result in an automatic zero on the entire assignment/learning task.



First Quarter Tentative Course Content

Week/Date	Topic/Projects/Assessments
Week 1 (August 11 to 14) <u>4 days of class</u>	Tuesday– Orientation in the morning. Welcome to G2 Getting Children ready for the upcoming year! Unit 1: Our Math Story Checking Readiness for G2 G1 to G2 Diagnostics
Week 2 (August 17 to 21)	Unit 2: Place Value to 1,000 L1: Understand Hundreds L2: Understand 3-Digit Numbers L3: Read and Write Numbers to 1,000
Week 3 (August 24 to 28)	L4: Decompose 3-Digit Numbers L5: Compare 3-Digit Numbers
Week 4 (August 31 to Sept 4)	Unit 3: Patterns Within Numbers L1: Counting Patterns L2: Patterns When Skip-Counting by 5s L3: Patterns When Skip-Counting by 10s and 100s
Week 5 (September 7 to 11)	L3: Patterns When Skip-Counting by 10s and 100s L4: Understand Even and Odd Numbers L5: Addition Patterns
Week 6 (September 14 to 18)	L6: Patterns with Arrays L7: Use Arrays to Add
Week 7 (September 21 to 24) Sept 25 Moon Festival Holiday	Review for exams



Week 8 (September 29 to October 2) Sept 28- Confucius Day Holiday Oct. 1-2- First Quarter Exams (half days)	Q1 Exam Half Day- No class
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Second Quarter Tentative Course Content

Week/Date	Topic/Projects/Assessments
Week 1 (October 12 to 16)	Unit 4: Meanings of Addition and Subtraction L1: Represent and Solve /Add to Problems L2: Represent and Solve /Take from Problems L3: Solve Two-Step Add to and Take from Problems
Week 2 (October 19 to 23)	L3: Solve Two-Step Add to and Take from Problems L4: Represent and Solve Put Together Problems L5: Represent and Solve Take Apart Problems L6: Solve Two-Step Put Together and Take Apart Problems
Week 3 (October 27 to 30) Oct.26: Retrocession Holiday	L7: Represent and Solve Compare Problems L8: Represent and Solve More Compare Problems L9: Solve Two-Step Problems with Comparison L10: Solve Two-Step Problems Using Addition and Subtraction
Week 4 (November 2 to 6)	Unit 5: Strategies to Fluently Add Within 100 L1: Strategies to Add Fluently Within 20 L2: More Strategies to Add Fluently Within 20 L3: Represent Addition with 2-Digit Numbers L4: Use Properties to Add



Week 5 (November 9 to 13)	L8: Adjust Addends to Add L9: Add More Than Two Numbers L10: Solve One- and Two-Step Problems Using Addition
Week 6 (November 16 to 20)	Unit 6: Strategies to Fluently Subtract Within 100 L1: Strategies to Subtract Fluently Within 100 L2: More Strategies to Subtract Fluently Within 100 L3: Represent Subtraction with 2-Digit Numbers L4: Represent 2-Digit Subtraction with Regrouping L5: Use a Number Line to Subtract
Week 7 (November 23 to 27)	L6: Decompose Numbers to Subtract L7: Adjust Numbers to Subtract L8: Relate Addition to Subtraction L9: Solve One-Step Problems Using Subtraction (review) L10: Solve Two-Step Problems Using Subtraction (review) Review lessons 9-10
Week 8 (Nov. 30-Dec. 4)	Exam Review
Week 9 (December 7 to 11)	Q2 Exams