Grade 2
Unit 1: Numbers Within 20 Addition, Subtraction, and Data

Skills and Standards

- **NY-2.OA.1a** Use addition and subtraction within 100 to solve one-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions. e.g., using drawings and equations with a symbol for the unknown number to represent the problem.
- **NY-2.OA.1b** Use addition and subtraction within 100 to develop an understanding of solving two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions. e.g., using drawings and equations with a symbol for the unknown number to represent the problem.
- **NY-2.OA.2a** Fluently add and subtract within 20 using mental strategies. Strategies could include: counting on; making ten; decomposing a number leading to a ten; using the relationship between addition and subtraction; and creating equivalent but easier or known sums.
- Note: Fluency involves a mixture of just knowing some answers, knowing some answers from patterns, and knowing some answers from the use of strategies.
- **NY-2.OA.2b** Know from memory all sums within 20 of two one-digit numbers.
- **NY-2.MD.10** Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a picture graph or a bar graph.

Number of Days/ Pacing Notes

- 36 days
- Included:
  - 5 days for Lesson 0 (required)
  - 2 days for diagnostic
  - 1 day for Mid Unit Assessment
  - 2 days for End of Unit Assessment

Strategies and Models

Resources to review prior to instruction:
Found in Teacher Toolbox – Beginning of Unit

- Unit Flow and Progression
- Unit 1 Math Background

Assessments

- Lesson Quizzes/ Digital Comprehension Check
- Mid Unit Assessment
- End of Unit Assessment
- Math in Action (optional)

Educator's Notes

- Fluency involves a mixture of just knowing some answers, knowing some answers from patterns, and knowing some answers from the use of strategies.

Grade 2
Unit 2: Numbers Within 100: Addition, Subtraction, Time and Money

Skills and Standards

- **NY-2.NBT.5** Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- Notes: Students should be taught to use strategies based on place value, properties of operations, and the relationship between addition and subtraction; however, when solving any problem, students can choose any strategy.
- Fluency involves a mixture of just knowing some answers, knowing some answers from patterns, and knowing some answers from the use of strategies.
- **NY-2.NBT.9** Explain why addition and subtraction strategies work, using place value and the properties of operations.
- Note: Explanations may be supported by drawings or objects.
- **NY-2.OA.1a** Use addition and subtraction within 100 to solve one-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions. e.g., using drawings and equations with a symbol for the unknown number to represent the problem.
- **NY-2.OA.1b** Use addition and subtraction within 100 to develop an understanding of solving two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions. e.g., using drawings and equations with a symbol for the unknown number to represent the problem.
- **NY-2.MD.7** Tell and write time from analog and digital clocks in five-minute increments, using a.m. and p.m. Develop an understanding of common terms, such as, but not limited to, quarter past, half past, and quarter to.
- **NY-2.MD.8a** Count a mixed collection of coins whose sum is less than or equal to one dollar. e.g., If you have 2 quarters, 2 dimes and 3 pennies, how many cents do you have?
- **NY-2.MD.8b** Solve real world and mathematical problems within one dollar involving quarters, dimes, nickels, and pennies, using the ¢ (cent) symbol appropriately.
- Note: Students are not introduced to decimals, and therefore the dollar symbol, until Grade 4

Dates/Number of Days/ Pacing Notes

- 33 days
- Included
  - 1 day for Mid Unit Assessment
  - 2 days for End of Unit Assessment (eDoctrina)

Strategies and Models

Resources to review prior to instruction:
Found in Teacher Toolbox – Beginning of Unit

- Unit Flow and Progression
- Unit 2 Math Background

Assessments

- Lesson Quizzes/ Digital Comprehension Check
- Mid Unit Assessment
- End of Unit Assessment -eDoctrina 1400631
- Math in Action (optional)

Educator Notes

Consider modifying the unit materials to include the following content provided in the Enhancement Activities:

- Identifying coins by name
- Changing references to dollars to references to cents
- Using time vocabulary such as, but not limited to, *quarter past, half past,* and *quarter to.*

Grade 2
Unit 3: Numbers Within 1,000: Place Value, Addition, and Subtraction

Skills and Standards

- **NY-2.NBT.1** Understand that the digits of a three-digit number represent amounts of hundreds, tens, and ones. e.g., 706 equals 7 hundreds, 0 tens, and 6 ones.
- **NY-2.NBT.1a** Understand 100 can be thought of as a bundle of ten tens, called a "hundred."
- **NY-2.NBT.1b** Understand the numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones).
- **NY-2.NBT. 2** Count within 1000; skip-count by 5's, 10's, and 100's.
- **NY-2.NBT. 3** Read and write numbers to 1000 using base ten numerals, number names, and expanded form. e.g., expanded form: 237 = 200 + 30 + 7
- **NY-2.NBT.4** Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.
- **NY-2.NBT.6** Add up to four two-digit numbers using strategies based on place value and properties of operations.
- **NY-2.NBT.7a** Add and subtract within 1000, using: concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Relate the strategy to a written representation.
- Notes: Students should be taught to use concrete models and drawings; as well as strategies based on place value, properties of operations, and the relationship between addition and subtraction. When solving any problem, students can choose to use a concrete model or a drawing. Their strategy must be based on place value, properties of operations, and/or the relationship between addition and subtraction.
- A written representation is any way of representing a strategy using words, pictures, or numbers.
- **NY-2.NBT.7b** Understand that in adding or subtracting up to three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones, and sometimes it is necessary to compose or decompose tens or hundreds.
- **NY-2.NBT.8** Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.
- **NY-2.NBT.9** Explain why addition and subtraction strategies work, using place value and the properties of operations.
- Note: Explanations may be supported by drawings or objects.

Dates/Number of Days/ Pacing Notes

- 43 days
- Included
  - 2 days for Diagnostic
  - 1 day for Mid Unit Assessment
  - 2 days for End of Unit Assessment

Strategies and Models

Resources to review prior to instruction:
Found in Teacher Toolbox – Beginning of Unit

- Unit Flow and Progression
- Unit 3 Math Background

Assessments

- Lesson Quizzes/ Digital Comprehension Check
- Mid Unit Assessment
- End of Unit Assessment
- Math in Action (optional)

Educator Notes

Grade 2
Unit 4 Length: Measurement, Addition, and Subtraction, and Line Plots

Skills and Standards

- **NY-2.MD.1** Measure the length of an object to the nearest whole by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes
- **NY-2.MD.2** Measure the length of an object twice, using different "length units" for the two measurements; describe how the two measurements relate to the size of the unit chosen.
- **NY-2.MD.3** Estimate lengths using units of inches, feet, centimeters, and meters.
- **NY-2.MD.4** Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard "length unit."
- **NY-2.MD.5** Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units. e.g., using drawings and equations with a symbol for the unknown number to represent the problem.
- **NY-2.MD.6** Represent whole numbers as lengths from 0 on a number line with equally spaced points corresponding to the numbers 0, 1, 2, …, and represent whole-number sums and differences within 100 on a number line.
- **NY-2.MD.9** Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Present the measurement data in a line plot, where the horizontal scale is marked off in whole-number units

Dates/Number of Days/ Pacing Notes

- 34 days
- Included
  - 1 day for Mid Unit Assessment
  - 2 days for End of Unit Assessment (eDoctrina)

Strategies and Models

Resources to review prior to instruction:
Found in Teacher Toolbox – Beginning of Unit

- Unit Flow and Progression
- Unit 4 Math Background

Assessments

- Lesson Quizzes/ Digital Comprehension Check
- Mid Unit Assessment
- End of Unit Assessment – eDoctrina 1452041
- Math in Action (optional)

Educator Notes

Grade 2
Unit 5: Shapes and Arrays: Partitioning and Tiling Shapes, Arrays, Evens and Odds

Skills and Standards

- **NY-2.G.1** Classify two-dimensional figures as polygons or non-polygons.
- **NY-2.G.2** Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.
- **NY-2.G.3** Partition circles and rectangles into two, three, or four equal shares. Describe the shares using the words halves, thirds, half of, a third of, etc. Describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.
- **NY-2.OA.3a** Determine whether a group of objects (up to 20) has an odd or even number of members. e.g., by pairing objects or counting them by 2's.
- **NY-2.OA.3b** Write an equation to express an even number as a sum of two equal addends.
- **NY-2.OA.4** Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns. Write an equation to express the total as a sum of equal addends.

Dates/Number of Days/ Pacing Notes

- 19 days
- Included
  - 1 day for End of Unit Assessment
  - 2 days for Diagnostic
  - Lesson 28

Strategies and Models

Resources to review prior to instruction:
Found in Teacher Toolbox – Beginning of Unit

- Unit Flow and Progression
- Unit 5 Math Background

Assessments

- Lesson Quizzes/ Digital Comprehension Check
- End of Unit Assessment
- Math in Action (optional)

Educator Notes

Consider modifying the unit materials to include the following content provided in the Enhancement Activities:

- Classifying two-dimensional figures as polygons or non-polygons
  Not requiring students to identify or draw shapes based on their attributes.

One-Day Activity – Recognize Polygons and Non-Polygons

- Start Unit 5 with this activity