Clinton Township Public School District
2nd Grade Mathematics Curriculum

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Unit 1

Subject: Mathematics	**Grade:** 2	**Unit Name:** Unit 1: Numbers Within 20: Addition, Subtraction, and Data
Total Number of Lessons: 6	**Unit Time Frame (days):** 35	
NJSLS 2.MD.D.10, 2.OA.A.1, 2.OA.B.2, 1.OA.C.6		
Students will be able to independently use their learning to: ● Establish an understanding of the Try-Discuss-Connect instructional framework. ● Identify different strategies, such as making a ten and doubles plus 1 to add and subtract. ● Utilize what they know about the relationship between addition and subtraction to help solve problems. ● Organize data into graphs to help answer questions about the data. ● Model a problem with pictures or diagrams to help solve a problem.		
Understandings: ● Count on to add and subtract. ● Use fact families to add and subtract. ● Make a ten to add and subtract. ● Solve a one-step word problem. ● Draw and find information from picture graphs and bar graphs. ● Use addition and subtraction to solve a problem with more than one step. ● Listen carefully during discussion in order to understand another person's ideas and ask questions about what I do not understand.		

Developed by: Meghan Rohmann, Lina Rothbard

Admin Approval: Carl Blanchard
Board Approved 9/11/23

Performance Tasks: ● Fluently add and subtract within 20 using mental strategies. ● Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. ● 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 bar graph.
Core Instructional and Supplemental Materials, Assessments, Pacing Guide Materials and assessments are provided by i-Ready. Unit 1: 2nd Grade Math Curriculum CTSD 2023 - 24
Interdisciplinary Connections: 2-PS1-1. Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties. [Clarification Statement: Observations could include color, texture, hardness, and flexibility. Patterns could include the similar properties that different materials share.] Graph materials by their observable properties. Practice adding and comparing totals.
Computer Science & Design Thinking (8.1 or 8.2) 8.1.2.CS.1: Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.
Career Readiness, Life Literacies & Key Skills (9.1, 9.2 or 9.4) 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive). 9.4.2.IML.2: Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).
Accommodations: CTSD accommodations

Unit 2

Subject: Mathematics	**Grade:** 2	**Unit Name:** Unit 2: Numbers Within 100: Addition, Subtraction, Time, and Money
Total Number of Lessons: 6 (Lessons 6-11)	**Unit Time Frame (days):** 34	

NJSLS
2.MD.C.7, 2.MD.C.8, 2.NBT.A.2, 2.NBT.B.5, 2.NBT.B.9, 2.OA.A.1

Students will be able to independently use their learning to:

- Add numbers by place value by using what they know about tens and ones.
- Add or subtract from a tens number to make the problem easier.
- Identify how to break apart numbers to get to the nearest ten to solve addition and subtraction problems.
- Create a model to represent and solve one- or two-step word problems.
- Use what they know about skip-counting by fives to help tell time to the nearest 5 minutes.

Understandings:

- Add tens, add ones, and add two-digit numbers.
- Regroup ones as a ten and decompose a ten.
- Subtract two-digit numbers.
- Solve one-step and two-step word problems by adding or subtracting two-digit numbers.
- Solve word problems involving money.10 Tell and write time to the nearest 5 minutes.
- Actively participate in discussions by asking questions and rephrasing or building on my classmates' ideas.

Performance Tasks:

- Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.
- Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately.
- Count within 1000; skip-count by 5s, 10s, and 100s.
- Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- Explain why addition and subtraction strategies work, using place value and the properties of operations.
- Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions.

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Math Grade 2: Unit 2

Interdisciplinary Connections:

- 2-ESS1-1. Use information from several sources to provide evidence that Earth events can occur quickly or slowly. [Clarification Statement: Examples of events and timescales could include volcanic explosions and earthquakes, which happen quickly and erosion of rocks, which occurs slowly.] [Assessment Boundary: Assessment does not include quantitative measurements of timescales.]
  Conduct experiments related to erosion and have students skip count rocks, shakes, drops, etc. by 5s or 10s.

Computer Science & Design Thinking (8.1 or 8.2) 8.1.2.CS.1: Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.
Career Readiness, Life Literacies & Key Skills (9.1, 9.2 or 9.4) 9.1.2. FI.1: Differentiate the various forms of money and how they are used. 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive).
Accommodations: CTSD accommodations

Unit 3

Subject: Mathematics	**Grade:** 2	**Unit Name:** Unit 3: Numbers Within 1,000: Place Value, Addition, and Subtraction
Total Number of Lessons: 7 (Lessons 12-19)	**Unit Time Frame (days):** 41	
NJSLS 2.OA.A.1, 2.NBT.A.1, 2.NBT.A.2, 2.NBT.A.3, 2.NBT.A.4, 2.NBT.B.5, 2.NBT.B.6, 2.NBT.B.7, 2.NBT.B.8, 2.NBT.B.9		
Students will be able to independently use their learning to: ● Identify that the value of a digit in a number depends on its place in the number. ● Utilize what they know about place value to determine the total value of a number. ● Utilize what they know about place value to read, write, and compare numbers. ● Utilize what they know about place value to mentally add 10 or 100 to numbers or subtract 10 or 100 from numbers. ● Utilize what they know about place value to break apart numbers as a strategy for adding or subtracting.		
Understandings: ● Build three-digit numbers in different ways. ● Read, write, and compare three-digit numbers. ● Add 10 or 100 to a number. ● Add or subtract three-digit numbers. ● Use different strategies to add and subtract.		

- Add more than 2 two-digit numbers.
- Justify solutions to problems about three-digit numbers by telling what you noticed and what you decided to do as a result.

Performance Tasks:

- Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions.
- Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones.
- Add up to four two-digit numbers using strategies based on place value and properties of operations.
- Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.
- Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.
- Count within 1000; skip-count by 5s, 10s, and 100s.
- Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.
- 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 method.
- Understand that in adding or subtracting 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.
- Explain why addition and subtraction strategies work, using place value and the properties of operations.

Core Instructional and Supplemental Materials, Assessments, Pacing Guide

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Math Grade 2: Unit 3

Interdisciplinary Connections:

- When measuring lengths, masses, volumes, etc. for experiments, have students record measurements and compare using >, <, = symbols.

Computer Science & Design Thinking (8.1 or 8.2)

8.1.2.CS.1: Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.

Career Readiness, Life Literacies & Key Skills (9.1, 9.2 or 9.4)

9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive).

Accommodations:

CTSD accommodations

Unit 4

Subject: Mathematics	**Grade:** 2	**Unit Name:** Unit 4: Length: Measurement, Addition and Subtraction, and Line Plots
Total Number of Lessons: 8 (Lessons 20-27)	**Unit Time Frame (days):** 31	
NJSLS 2.MD.A.1, 2.MD.A.2, 2.MD.A.3, 2.MD.A.4, 2.MD.B.5, 2.MD.B.6, 2.MD.D.9		
Students will be able to independently use their learning to: ● Understand there are different tools and units that can be used to measure length. ● Understand that measurement helps to estimate and compare lengths. ● Use addition and subtraction to find the difference between lengths of objects.		
Understandings: ● Choose a tool to measure the length of an object. ● Measure the same object using different units. ● Estimate the length of an object. ● Compare lengths to tell which of two objects is longer and how much longer that object is. ● Add and subtract lengths on a number line. ● Measure lengths and show data on a line plot. ● Agree or disagree with ideas in discussions about length problems and explain why.		
Performance Tasks: ● Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes. ● Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen. ● Estimate lengths using units of inches, feet, centimeters, and meters. ● Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit. ● Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units, e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem. ● Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.		

• Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers 0, 1, 2,..., and represent whole-number sums and differences within 100 on a number line diagram.
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Interdisciplinary Connections:
Computer Science & Design Thinking (8.1 or 8.2) 8.1.2.CS.1: Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.
Career Readiness, Life Literacies & Key Skills (9.1, 9.2 or 9.4) 9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive). 9.4.2.IML.2: Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).
Accommodations: CTSD accommodations

Unit 5

Subject: Mathematics	**Grade:** 2	**Unit Name:** Unit 5: Partitioning and Tiling Shapes, Arrays, Evens and Odds
Total Number of Lessons: 5 (Lessons 28-32)	**Unit Time Frame (days):** 18	
NJSLS 2.G.A.1, 2.G.A.3, 2.G.A.2, 2.OA.C.3,2.OA.C.3, 2		
Students will be able to independently use their learning to: • Show the number of sides and angles a shape has. • Identify shapes.		

- Use what is known about dividing a shape into equal parts to show halves, thirds, and fourths.
- Identify that an array is an arrangement of objects in equal rows and columns.
- To use what is known about addition and skip-counting to find the number of objects in an array.

Understandings:

- Recognize and draw different shapes.
- Divide shapes into equal parts.
- Break apart a rectangle into squares.
- Find the total number of squares used to tile a rectangle by counting them.
- Use addition to find the total number of objects in an array.
- Fiend even and odd numbers.
- Use math vocabulary and precise language to describe shapes, equal parts of shapes, and arrays.

Performance Tasks:

- 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 2s; write an equation to express an even number as a sum of two equal addends.
- 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., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

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Math Grade 2:Unit 5

Interdisciplinary Connections:

Computer Science & Design Thinking (8.1 or 8.2)

8.1.2.CS.1: Select and operate computing devices that perform a variety of tasks accurately and quickly based on user needs and preferences.

Career Readiness, Life Literacies & Key Skills (9.1, 9.2 or 9.4)

9.4.2.CT.3: Use a variety of types of thinking to solve problems (e.g., inductive, deductive).

9.4.2.IML.2: Represent data in a visual format to tell a story about the data (e.g., 2.MD.D.10).

Accommodations:

CTSD accommodations