Curriculum Design	
Content Area: Mathematics	
Course Title: Mathematics	**Grade Level: 2**

Unit 1: Addition / Subtraction to 20	**3 weeks**
Unit 2: Numbers in Base 10 (Place Value to Hundreds)	**3 weeks**
Unit 3: Addition / Subtraction to 100	**3 weeks**
Unit 4: Number Sense to 1000 (counting)	**3 weeks**
Unit 5: Measurement	**3 weeks**
Unit 6: Operations and Measurement	**3 weeks**
Unit 7: Time	**3 weeks**
Unit 8: Money	**3 weeks**

Unit 9: Representing Data	**3 weeks**
Unit 10: Geometry (shapes / fractions)	**3 weeks**
Unit 11: Addition/ Subtraction to 1000	**3 weeks**
Unit 12: Foundations for Multiplication	**3 weeks**

Date Created: **August 2015**

Board Approved on: **August 27, 2015**

Unit 1 Overview

Content Area: Mathematics

Unit 1 Title: Addition / Subtraction to 20

Grade Level: 2

Unit Summary: Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two digit numbers.

Primary interdisciplinary connections: Science, Technology, and Life and Careers

SL.2.3 Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.

21st century themes: This unit will incorporate the 21st Century Life and Careers standard 9.1 strand A. All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures.

CRP4. Communicate clearly and effectively and with reason.

CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

Unit Rationale: Students will be able to fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two digit numbers.

Learning Targets

Standards: This unit will incorporate the following Mathematical Practices: make sense of problems and persevere in solving them, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of structure, and look for and express regularity in repeated reasoning.

CPI #	Cumulative Progress Indicator (CPI)
2.OA.2	Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two digit numbers.

Unit Essential Questions	Unit Enduring Understandings
• What makes a computational strategy both effective and efficient? • How do operations affect numbers? • How do mathematical representations reflect the needs of society across cultures?	• Computational fluency includes understanding not only the meaning, but also the appropriate use of numerical operations. • The magnitude of numbers affects the outcome of operations on them.

Unit Learning Targets

- Fluently add and subtract within 20 using mental strategies.

Evidence of Learning

Summative Assessment: Chapter Assessments

Benchmark: Go Math Benchmark

Equipment needed: Go Math student text, workbook, manipulatives

Teacher Resources: wwwk-6.thinkcentral.com

Formative Assessments

- Daily observation
- Classwork
- Self-Assessment
- Homework

Suggested Modifications (ELLs, Special Education, Gifted and Talented)

Provide differentiated instruction as needed.

Follow all IEP modifications and 504 plans.

- Menus
- Choice Boards
- Tiered Assignments
- Partner work
- Manipulatives
- Flexible grouping
- Individualizing lessons
- Compacting
- Varying question levels

Curriculum Development Resources

Click the links below to access additional resources used to design this unit:

https://www13.state.nj.us/NJCCCS/

wwwk-6.thinkcentral.com

Unit 2 Overview
Content Area: Mathematics
Unit 2 Title: Numbers in Base 10 (Place Value to Hundreds)
Grade Level: 2
Unit Summary: Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons. **Primary interdisciplinary connections:** Science, Technology, and Life and Careers **SL.2.3** Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue. **21st century themes:** This unit will incorporate the 21st Century Life and Careers standard 9.1 strand A. All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures. **CRP4.** Communicate clearly and effectively and with reason. **CRP8.** Utilize critical thinking to make sense of problems and persevere in solving them.
Unit Rationale: Students will be able to understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones, and compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.
Learning Targets
Standards: This unit will incorporate the following Mathematical Practices: make sense of problems and persevere in solving them, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of structure, and look for and express regularity in repeated reasoning.

CPI #	Cumulative Progress Indicator (CPI)
2.NBT.1	Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones. Understand the following as special cases: a. 100 can be thought of as a bundle of ten tens – called a "hundred." b. The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, nine hundreds (and 0 tens and 0 ones).
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.

Unit Essential Questions	**Unit Enduring Understandings**
• How do mathematical ideas interconnect and build on one another to produce a coherent whole? • How can we compare and contrast numbers?	• One representation may some sometimes be more helpful than another; and, used together, multiple representations give a fuller understanding of a problem. • A quantity can be represented numerically in various ways. • Numeric fluency includes both the understanding of and the ability to appropriately use numbers.

Unit Learning Targets

- Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones.
- Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons.

Evidence of Learning

Summative Assessment: Chapter Assessments

Benchmark: Go Math Benchmark

Equipment needed: GO Math student text, workbook, manipulatives

Teacher Resources: wwwk-6.thinkcentral.com

Formative Assessments

- Daily observation
- Classwork
- Self-Assessment
- Homework

Suggested Modifications (ELLs, Special Education, Gifted and Talented)

- Provide differentiated instruction as needed.
- Follow all IEP modifications and 504 plans.
- Menus
- Choice Boards
- Tiered Assignments
- Partner work
- Manipulatives
- Flexible grouping
- Individualizing lessons
- Compacting

- Varying question levels

Curriculum Development Resources

Click the links below to access additional resources used to design this unit:

https://www13.state.nj.us/NJCCCS/

wwwk-6.thinkcentral.com

Unit 3 Overview

Content Area: Mathematics

Unit 3 Title: Addition / Subtraction to 100

Grade Level: 2

Unit Summary: 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. Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction. Add up to four two-digit numbers using strategies based on place value and properties of operations.

Primary interdisciplinary connections: Social Studies, Technology, and Life and Careers

6.1.4.D.19 Explain how experiences and events may be interpreted differently by people with different cultural or individual perspectives.

21st century themes: This unit will incorporate the 21st Century Life and Careers standard 9.1 strand A. All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures.

CRP4. Communicate clearly and effectively and with reason.

CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

Unit Rationale: Students will be able to 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, fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction, and add up to four two-digit numbers using strategies based on place value and properties of operations.

Learning Targets

Standards: This unit will incorporate the following Mathematical Practices: make sense of

problems and persevere in solving them, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of structure, and look for and express regularity in repeated reasoning.

CPI #	Cumulative Progress Indicator (CPI)
2.OA.1	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.
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.
2.NBT.6	Add up to four two-digit numbers using strategies based on place value and properties of operations.

Unit Essential Questions

- What makes a computational strategy both effective and efficient?
- How do operations affect numbers?
- How do mathematical representations reflect the needs of society across cultures?

Unit Enduring Understandings

- Computational fluency includes understanding not only the meaning, but also the appropriate use of numerical operations.
- The magnitude of numbers affects the outcome of operations on them.

Unit Learning Targets

- 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.
- Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.
- Add up to four two-digit numbers using strategies based on place value and properties of operations.

Evidence of Learning

Summative Assessment: Chapter Assessments

Benchmark: Go Math Benchmark

Equipment needed: Go Math student text, workbook, manipulatives

Teacher Resources: wwwk-6.thinkcentral.com

Formative Assessments

- Daily observation
- Classwork
- Self-Assessment
- Homework

Suggested Modifications (ELLs, Special Education, Gifted and Talented)

- Provide differentiated instruction as needed.
- Follow all IEP modifications and 504 plans.
- Menus
- Choice Boards
- Tiered Assignments
- Partner work
- Manipulatives
- Flexible grouping
- Individualizing lessons
- Compacting
- Varying question levels

Curriculum Development Resources

Click the links below to access additional resources used to design this unit:

https://www13.state.nj.us/NJCCCS/

wwwk-6.thinkcentral.com

Unit 4 Overview
Content Area: Mathematics
Unit 4 Title: Number Sense to 1000 (counting)
Grade Level: 2
Unit Summary: Count within 1000; skip-count by 5s, 10s, and 100s. Read and write numbers to 1000 using base-ten numerals, number names, and expanded form. **Primary interdisciplinary connections:** Science, Technology, and Life and Careers **SL.2.3** Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue. **21st century themes:** This unit will incorporate the 21st Century Life and Careers standard 9.1 strand A. All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures. **CRP4.** Communicate clearly and effectively and with reason. **CRP8.** Utilize critical thinking to make sense of problems and persevere in solving them.

Unit Rationale: Students will be able to count within 1000; skip-count by 5s, 10s, and 100s and read and write numbers to 1000 using base-ten numerals, number names, and expanded form.

Learning Targets

Standards: This unit will incorporate the following Mathematical Practices: make sense of problems and persevere in solving them, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of structure, and look for and express regularity in repeated reasoning.

CPI #	Cumulative Progress Indicator (CPI)
2.NBT.2	Count within 1000; skip-count by 5s, 10s, and 100s.
2.NBT.3	Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.

Unit Essential Questions

- How do mathematical ideas interconnect and build on one another to produce a coherent whole?
- How can we compare and contrast numbers?

Unit Enduring Understandings

- One representation may some sometimes be more helpful than another; and, used together, multiple representations give a fuller understanding of a problem.
- A quantity can be represented numerically in various ways.
- Numeric fluency includes both the understanding of and the ability to appropriately use numbers.

Unit Learning Targets

- Count within 1000; skip-count by 5s, 10s, and 100s.
- Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.

Evidence of Learning

Summative Assessment: Chapter Assessments

Benchmark: Go Math Benchmark

Equipment needed: Go Math student text, workbook, manipulatives

Teacher Resources: wwwk-6.thinkcentral.com

Formative Assessments

- Daily observation
- Classwork
- Self-Assessment
- Homework

Suggested Modifications (ELLs, Special Education, Gifted and Talented)

- Provide differentiated instruction as needed.
- Follow all IEP modifications and 504 plans.
- Menus
- Choice Boards
- Tiered Assignments
- Partner work
- Manipulatives
- Flexible grouping
- Individualizing lessons
- Compacting
- Varying question levels

Curriculum Development Resources

Click the links below to access additional resources used to design this unit:

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wwwk-6.thinkcentral.com

Unit 5 Overview
Content Area: Mathematics
Unit 5 Title: Measurement
Grade Level: 2
Unit Summary: 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 different in terms of a standard length unit. **Primary interdisciplinary connections:** Science, Technology, and Life and Careers **2-PS1-1.** Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties. **21st century themes:** This unit will incorporate the 21st Century Life and Careers standard 9.1 strand A. All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures. **CRP4.** Communicate clearly and effectively and with reason. **CRP8.** Utilize critical thinking to make sense of problems and persevere in solving them.
Unit Rationale: Students will be able to 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, and measure to determine how much longer one object is than another, expressing the length different in terms of a standard length unit.
Learning Targets
Standards: This unit will incorporate the following Mathematical Practices: make sense of problems and persevere in solving them, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of structure, and look for and express regularity in repeated reasoning.

CPI #	Cumulative Progress Indicator (CPI)
2.MD.1	Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.
2.MD.2	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.
2.MD.3	Estimate lengths using units of inches, feet, centimeters, and meters.
2.MD.4	Measure to determine how much longer one object is than another, expressing the length different in terms of a standard length unit.

Unit Essential Questions

- How can measurements be used to solve problems?

Unit Enduring Understandings

- Everyday objects have a variety of attributes, each of which can be measured in many ways.
- What we measure affects how we measure it.
- Measurement can be used to describe, compare, and make sense of phenomena.

Unit Learning Targets

- 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 different in terms of a standard length unit.

Evidence of Learning

Summative Assessment: Chapter Assessments

Benchmark: Go Math Benchmark

Equipment needed: Go Math student text, workbook, manipulatives

Teacher Resources: wwwk-6.thinkcentral.com

Formative Assessments

- Daily observation
- Classwork
- Self-Assessment
- Homework

Suggested Modifications (ELLs, Special Education, Gifted and Talented)

- Provide differentiated instruction as needed.
- Follow all IEP modifications and 504 plans.
- Menus
- Choice Boards
- Tiered Assignments
- Partner work
- Manipulatives
- Flexible grouping
- Individualizing lessons

- Compacting
- Varying question levels

Curriculum Development Resources

Click the links below to access additional resources used to design this unit:

https://www13.state.nj.us/NJCCCS/

wwwk-6.thinkcentral.com

Unit 6 Overview
Content Area: Mathematics
Unit 6 Title: Operations and Measurement
Grade Level: 2
Unit Summary: 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. 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. **Primary interdisciplinary connections:** Science, Technology, and Life and Careers **2-PS1-2.** Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose. **21st century themes:** This unit will incorporate the 21st Century Life and Careers standard 9.1 strand A. All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures. **CRP4.** Communicate clearly and effectively and with reason. **CRP8.** Utilize critical thinking to make sense of problems and persevere in solving them.
Unit Rationale: Students will be able to 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 and 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.
Learning Targets

Standards: This unit will incorporate the following Mathematical Practices: make sense of problems and persevere in solving them, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of structure, and look for and express regularity in repeated reasoning.

CPI #	Cumulative Progress Indicator (CPI)
2.MD.5	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.
2.MD.6	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.

Unit Essential Questions

- How can measurements be used to solve problems?

Unit Enduring Understandings

- Everyday objects have a variety of attributes, each of which can be measured in many ways.
- What we measure affects how we measure it.
- Measurement can be used to describe, compare, and make sense of phenomena.

Unit Learning Targets

- 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.
- 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.

Evidence of Learning

Summative Assessment: Chapter Assessments

Benchmark: Go Math Benchmark

Equipment needed: student text, workbook, manipulatives

Teacher Resources: wwwk-6.thinkcentral.com

Formative Assessments

- Daily observation
- Classwork
- Self-Assessment
- Homework

Suggested Modifications (ELLs, Special Education, Gifted and Talented)

- Provide differentiated instruction as needed.

- Follow all IEP modifications and 504 plans.
- Menus
- Choice Boards
- Tiered Assignments
- Partner work
- Manipulatives
- Flexible grouping
- Individualizing lessons
- Compacting
- Varying question levels

Curriculum Development Resources

Click the links below to access additional resources used to design this unit:

https://www13.state.nj.us/NJCCCS/

wwwk-6.thinkcentral.com

Unit 7 Overview

Content Area: Mathematics

Unit 7 Title: Time

Grade Level: 2

Unit Summary: Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

Primary interdisciplinary connections: Science, Technology, and Life and Careers

2-ESS1-1. Use information from several sources to provide evidence that Earth events can occur quickly or slowly.

21st century themes: This unit will incorporate the 21st Century Life and Careers standard 9.1 strand A. All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures.

CRP4. Communicate clearly and effectively and with reason.

CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

Unit Rationale: Students will be able to tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

Learning Targets

Standards: This unit will incorporate the following Mathematical Practices: make sense of problems and persevere in solving them, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of structure, and look for and express regularity in repeated reasoning.

CPI #	Cumulative Progress Indicator (CPI)
2.MD.7	Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

Unit Essential Questions	Unit Enduring Understandings
• How can we use time to plan our day?	• Time is measured in seconds, minutes, and hours. • Digital and analog clocks measure the same thing but with different representations.

Unit Learning Targets

- Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.

Evidence of Learning
Summative Assessment: Chapter Assessment **Benchmark: Go Math** Benchmark **Equipment needed: Go Math** student text, workbook, manipulatives **Teacher Resources:** wwwk-6.thinkcentral.com
Formative Assessments • Daily observation • Classwork • Self-Assessment • Homework
Suggested Modifications (ELLs, Special Education, Gifted and Talented) • Provide differentiated instruction as needed. • Follow all IEP modifications and 504 plans. • Menus • Choice Boards • Tiered Assignments • Partner work • Manipulatives • Flexible grouping • Individualizing lessons • Compacting • Varying question levels
Curriculum Development Resources Click the links below to access additional resources used to design this unit: https://www13.state.nj.us/NJCCCS/ wwwk-6.thinkcentral.com

Unit 8 Overview

Content Area: Mathematics

Unit 8 Title: Money

Grade Level: 2

Unit Summary: Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately.

Primary interdisciplinary connections: Social Studies, Technology, and Life and Careers

6.1.4.C.10 Explain the role of money, savings, debt, and investment in individuals' lives.

21st century themes: This unit will incorporate the 21st Century Life and Careers standard 9.1 strand A and standard 9.2 strand B. All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures.

CRP4. Communicate clearly and effectively and with reason.

CRP8. Utilize critical thinking to make sense of problems and persevere in solving them.

Unit Rationale: Students will be able to solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately.

Learning Targets

Standards: This unit will incorporate the following Mathematical Practices: make sense of problems and persevere in solving them, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of structure, and look for and express regularity in repeated reasoning.

CPI #	Cumulative Progress Indicator (CPI)
2.MD.8	Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢ symbols appropriately.

Unit Essential Questions	Unit Enduring Understandings
• How do mathematical ideas interconnect and build on one another to produce a coherent whole? • How can we compare and contrast numbers?	• One representation may some sometimes be more helpful than another; and, used together, multiple representations give a fuller understanding of a problem. • A quantity can be represented numerically in various ways. • Numeric fluency includes both the understanding of and the ability to appropriately use numbers.

Unit Learning Targets

• Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and ¢

symbols appropriately.

Evidence of Learning

Summative Assessment: Chapter Assessments

Benchmark: Go Math Benchmark

Equipment needed: Go Math student text, workbook, manipulatives

Teacher Resources: wwwk-6.thinkcentral.com

Formative Assessments

- Daily observation
- Classwork
- Self-Assessment
- Homework

Suggested Modifications (ELLs, Special Education, Gifted and Talented)

- Provide differentiated instruction as needed.
- Follow all IEP modifications and 504 plans.
- Menus
- Choice Boards
- Tiered Assignments
- Partner work
- Manipulatives
- Flexible grouping
- Individualizing lessons
- Compacting
- Varying question levels

Curriculum Development Resources

Click the links below to access additional resources used to design this unit:

https://www13.state.nj.us/NJCCCS/

wwwk-6.thinkcentral.com

Unit 9 Overview
Content Area: Mathematics
Unit 9 Title: Representing Data
Grade Level: 2
Unit Summary: 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. 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. **Primary interdisciplinary connections:** Science, Technology, and Life and Careers **2-LS2-1.** Plan and conduct an investigation to determine if plants need sunlight and water to grow. **21st century themes:** This unit will incorporate the 21st Century Life and Careers standard 9.1 strand A. All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures. **CRP4.** Communicate clearly and effectively and with reason. **CRP8.** Utilize critical thinking to make sense of problems and persevere in solving them.
Unit Rationale: Students will be able to 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, draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories, and solve simple put-together, take apart, and compare problems using information presented in a bar graph.
Learning Targets
Standards: This unit will incorporate the following Mathematical Practices: make sense of problems and persevere in solving them, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of structure, and look for and express regularity in repeated reasoning.

CPI #	Cumulative Progress Indicator (CPI)
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. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.
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 bar graph.

Unit Essential Questions	**Unit Enduring Understandings**
• How can the collection, organization, interpretation, and display of data be used to answer questions?	• The message conveyed by the data depends on how the data is collected, represented, and summarized. • The results of a statistical investigation can be used to support or refute an argument.

Unit Learning Targets

- 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.
- 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.

Evidence of Learning

Summative Assessment: Chapter Assessments

Benchmark: Go Math Benchmark

Equipment needed: Go Math student text, workbook, manipulatives

Teacher Resources: wwwk-6.thinkcentral.com

Formative Assessments

- Daily observation
- Classwork
- Self-Assessment
- Homework

Suggested Modifications (ELLs, Special Education, Gifted and Talented)

- Provide differentiated instruction as needed.
- Follow all IEP modifications and 504 plans.
- Menus
- Choice Boards
- Tiered Assignments
- Partner work
- Manipulatives
- Flexible grouping
- Individualizing lessons

- Compacting
- Varying question levels

Curriculum Development Resources

Click the links below to access additional resources used to design this unit:

https://www13.state.nj.us/NJCCCS/

wwwk-6.thinkcentral.com

Unit 10 Overview
Content Area: Mathematics
Unit 10 Title: Geometry (shapes / fractions)
Grade Level: 2
Unit Summary: Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes. Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. 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. **Primary interdisciplinary connections:** Science, Technology, and Life and Careers **SL.2.3** Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue. **21st century themes:** This unit will incorporate the 21st Century Life and Careers standard 9.1 strand A. All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures. **CRP4.** Communicate clearly and effectively and with reason. **CRP8.** Utilize critical thinking to make sense of problems and persevere in solving them.
Unit Rationale: Students will be able to recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes; partition a rectangle into rows and columns of same-size squares and count to find the total number of them; 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; and recognize that equal shares of identical wholes need not have the same shape.

Learning Targets

Standards: This unit will incorporate the following Mathematical Practices: make sense of problems and persevere in solving them, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of structure, and look for and express regularity in repeated reasoning.

CPI #	Cumulative Progress Indicator (CPI)
2.G.1	Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
2.G.2	Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.
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., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

Unit Essential Questions

- How can spatial relationships be described by careful use of geometric language?
- How do geometric relationships help us to solve problems and/or make sense of phenomena?

Unit Enduring Understandings

- Geometric properties can be used to construct geometric figures.
- Geometric relationships provide a means to make sense of a variety of phenomena.

Unit Learning Targets

- Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.
- Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.
- Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.
- 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.

Evidence of Learning

Summative Assessment: Chapter Assessments

Benchmark: Go Math Benchmark

Equipment needed: Go Math student text, workbook, manipulatives

Teacher Resources: wwwk-6.thinkcentral.com

Formative Assessments

- Daily observation
- Classwork
- Self-Assessment
- Homework

Suggested Modifications (ELLs, Special Education, Gifted and Talented)

- Provide differentiated instruction as needed.
- Follow all IEP modifications and 504 plans.
- Menus
- Choice Boards
- Tiered Assignments
- Partner work
- Manipulatives
- Flexible grouping
- Individualizing lessons
- Compacting
- Varying question levels

Curriculum Development Resources

Click the links below to access additional resources used to design this unit:

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wwwk-6.thinkcentral.com

Unit 11 Overview
Content Area: Mathematics
Unit 11 Title: Addition / Subtraction to 1000
Grade Level: 2
Unit Summary: 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. Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900. Explain why addition and subtraction strategies work, using place value and the properties of operations. **Primary interdisciplinary connections:** Science, Technology, and Life and Careers **2-ESS2-2.** Develop a model to represent the shapes and kinds of land and bodies of water in an area. **21st century themes:** This unit will incorporate the 21st Century Life and Careers standard 9.1 strand A. All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures. **CRP4.** Communicate clearly and effectively and with reason. **CRP8.** Utilize critical thinking to make sense of problems and persevere in solving them.
Unit Rationale: Students will be able to add and subtract within 1000, 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, mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900, and explain why addition and subtraction strategies work, using place value and the properties of operations.
Learning Targets
Standards: This unit will incorporate the following Mathematical Practices: make sense of problems and persevere in solving them, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of structure, and look for and express regularity in repeated reasoning.

CPI #	Cumulative Progress Indicator (CPI)
2.NBT.7	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.
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.
2.NBT.9	Explain why addition and subtraction strategies work, using place value and the properties of operations.

Unit Essential Questions	**Unit Enduring Understandings**
• What makes a computational strategy both effective and efficient? • How do operations affect numbers? • How do mathematical representations reflect the needs of society across cultures?	• Computational fluency includes understanding not only the meaning, but also the appropriate use of numerical operations. • The magnitude of numbers affects the outcome of operations on them.

Unit Learning Targets

- 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.
- Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900.
- Explain why addition and subtraction strategies work, using place value and the properties of operations.

Evidence of Learning

Summative Assessment: Chapter Assessments

Benchmark: Go Math Benchmark

Equipment needed: GO Math student text, workbook, manipulatives

Teacher Resources: wwwk-6.thinkcentral.com

Formative Assessments

- Daily observation
- Classwork
- Self-Assessment
- Homework

Suggested Modifications (ELLs, Special Education, Gifted and Talented)

- Provide differentiated instruction as needed.
- Follow all IEP modifications and 504 plans.

- Menus
- Choice Boards
- Tiered Assignments
- Partner work
- Manipulatives
- Flexible grouping
- Individualizing lessons
- Compacting
- Varying question levels

Curriculum Development Resources

Click the links below to access additional resources used to design this unit:

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Unit 12 Overview	
Content Area: Mathematics	
Unit 12 Title: Foundations for Multiplication	
Grade Level: 2	
Unit Summary: 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. 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. **Primary interdisciplinary connections:** Social Studies, Technology, and Life and Careers **6.1.4.C.9** Compare and contrast how the availability of resources affects people across the world differently. **21st century themes:** This unit will incorporate the 21st Century Life and Careers standard 9.1 strand A. All students will demonstrate the creative, critical thinking, collaboration, and problem-solving skills needed to function successfully as both global citizens and workers in diverse ethnic and organizational cultures. **CRP4.** Communicate clearly and effectively and with reason. **CRP8.** Utilize critical thinking to make sense of problems and persevere in solving them.	
Unit Rationale: Students will be able to determine whether a group of objects (up to 20) has an odd or even number of members, use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns, and write an equation to express the total as a sum of equal addends.	
Learning Targets	
Standards: This unit will incorporate the following Mathematical Practices: make sense of problems and persevere in solving them, reason abstractly and quantitatively, construct viable arguments and critique the reasoning of others, model with mathematics, use appropriate tools strategically, attend to precision, look for and make use of structure, and look for and express regularity in repeated reasoning.	
CPI #	**Cumulative Progress Indicator (CPI)**
2.OA.3	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.
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.
Unit Essential Questions	**Unit Enduring Understandings**

• What makes a computational strategy both effective and efficient? • How do operations affect numbers? • How do mathematical representations reflect the needs of society across cultures?	• Computational fluency includes understanding not only the meaning, but also the appropriate use of numerical operations. • The magnitude of numbers affects the outcome of operations on them.

Unit Learning Targets

- 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.
- 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.

Evidence of Learning

Summative Assessment: Chapter Assessments

Benchmark: Go Math Benchmark

Equipment needed: Go Math student text, workbook, manipulatives

Teacher Resources: wwwk-6.thinkcentral.com

Formative Assessments

- Daily observation
- Classwork
- Self-Assessment
- Homework

Suggested Modifications (ELLs, Special Education, Gifted and Talented)

- Provide differentiated instruction as needed.
- Follow all IEP modifications and 504 plans.
- Menus
- Choice Boards
- Tiered Assignments
- Partner work
- Manipulatives
- Flexible grouping
- Individualizing lessons
- Compacting
- Varying question levels

Curriculum Development Resources

Click the links below to access additional resources used to design this unit:

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