MOUNT HOLLY TOWNSHIP SCHOOL DISTRICT
SECOND GRADE MATHEMATICS CURRICULUM

2016 Mathematics Standards with companion June 2020 NJSLS
Board Approval: September 28, 2022

District Administration

Mr. Robert Mungo	Superintendent
Mrs. Amie Dougherty	Director of Curriculum and Instruction
Mrs. Tifanie Pierce	Director of Special Services
Mrs. Carolyn McDonald	Director of Equity and Student Services
Mr. Daniel Finn	Principal 5-8
Mr. Thomas Braddock	Principal 2-4
Mrs. Nicole Peoples	Principal PreK-2
Mrs. Kinny Nahal	Assist Principal 5-8
Mrs. Evon DiGangi	School Business Administrator

Mount Holly Township Board of Education

Mrs. Janet DiFolco	Board President
Ms. Jennifer Mushinsky	Board Vice-President
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Mrs. Janene Ciotti	Board Member
Mr. William Monk	Board Member

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New Jersey Mathematics Standards:
2016 New Jersey Student Learning Standards - Mathematics

New Jersey Computer Science and Design Thinking Standards
2020 New Jersey Student Learning Standards: Computer Science and Design Thinking

New Jersey Career Readiness, Life Literacies, and Key Skills Standards
2020 New Jersey Student Learning Standards: Career Readiness, Life Literacies & Key Skills

Grade Two Pacing Guide

Mathematics Curriculum	**Grade 2**

Interdisciplinary Connections: The Mathematics Program, My Math/Glencoe Math, links mathematics instruction across multiple disciplines. These interdisciplinary standards are incorporated into each grade level, providing purposeful application and meaningful learning.

Math Discipline	*Connection to other Disciplines*
Domain 1: Operational and Algebraic Thinking	NJSLSA.R3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.
	NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.
	NJSLSA.W1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
	NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
	NJSLSA.SL2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

Board Approved: September 28, 2022

	NJSLSA.SL5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
Domain 2: Numbers and Operations in Base Ten	NJSLSA.R3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.
	NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.
	NJSLSA.W1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
	NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively. NJSLSA.SL2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
	NJSLSA.SL5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations. 2-LS4-1. Make observations of plants and animals to compare the diversity of life in different habitats.
Domain 3: Measurement and Data	NJSLSA.R3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.
	NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.
	NJSLSA.W1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
	NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
	NJSLSA.SL2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
	NJSLSA.SL5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.
	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.
Domain 4: Geometry	NJSLSA.R3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.

NJSLSA.R7. Integrate and evaluate content presented in diverse media and formats, including visually and quantitatively, as well as in words.

NJSLSA.W1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

NJSLSA.SL1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.

NJSLSA.SL2. Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.

NJSLSA.SL5. Make strategic use of digital media and visual displays of data to express information and enhance understanding of presentations.

Computer Science and Design Thinking

Core Ideas	Performance Expectations
Data can be used to make predictions about the world.	8.1.2.DA.3: Identify and describe patterns in data visualizations. 8.1.2.DA.4: Make predictions based on data using charts or graphs.
Individuals develop and follow directions as part of daily life. A sequence of steps can be expressed as an algorithm that a computer can process.	8.1.2.AP.1: Model daily processes by creating and following algorithms to complete tasks.

Career Readiness, Life Literacies, and Key Skills

Financial Institutions/Psychology

Core Ideas	Performance Expectations
Money comes in different values, forms, and uses.	9.1.2. FI.1: Differentiate the various forms of money and how they are used (e.g., coins, bills, checks, debit and credit cards).
There is a relationship between an individual's values, emotions, and the ways he/she chooses to spend money.	9.1.2.FP.1: Explain how emotions influence whether a person spends or saves.
External factors can influence the items that an individual wants or needs.	9.1.2.FP.2: Differentiate between financial wants and needs. 9.1.2.FP.3: Identify the factors that influence people to spend or save (e.g., commercials, family, culture, society).
Career Awareness, Exploration, Preparation, and Training	
Different types of jobs require different knowledge and skills.	9.1.2.CAP.1: Make a list of different types of jobs and describe the skills associated with each job.
Diversity, Equity, and Inclusion:	
Culturally Responsive Practices in Mathematics Education: **8 Powerful Ways to Promote Equity in the Classroom** **Who Do You Call On? Rooting Out Implicit Bias**' **Why Representation Matters**	
Financial Habits and Traits: Students in Grades K-2 will begin too explore advertisements on television, computer, or even on their journeys to and from school. These lessons open up important conversations about the relationship between	Resources: Learning for Justice: Reading Ads with a Social Justice Lens

Board Approved: September 28, 2022

advertisements and social justice. Children will begin to see that they have the power to decide how media will influence them.	

Domain 1: Operations and Algebraic Thinking
Chapter 1 - Apply Addition and Subtraction Concepts Chapter 2 - Number Patterns Chapter 3 - Add Two-Digit Numbers Chapter 4 - Subtract Two-Digit Numbers

NJ 2016 Student Learning Standards: Mathematics Grade 2	NJDOE Mathematics Curricular Framework
Operations and Algebraic Thinking **2.OA.1 Represent and solve problems involving addition and subtraction.** 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.OA.2. Add and subtract within 20.**	NJDOE Mathematics Curricular Framework Guide Document and Supports Mathematics Curricular Framework
	Mathematical Practices **MP. The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.** **highlight appropriate indicators for unit/domain** MP.1. Make sense of problems and persevere in solving them. MP.2. Reason abstractly and quantitatively. MP.3. Construct viable arguments and critique the reasoning of others. MP.4. Model with mathematics.

2. Fluently add and subtract within 20 using mental strategies.2 By end of Grade 2, know from memory all sums of two one-digit numbers. **2.OA.3 Determine whether a group of objects (up to 20) has an odd or even number of members.** **2.OA.4** Use addition to find the total number of objects arranged in rectangular arrays with up to 5 row and up to 5 columns; write an equation to express the total as a sum of equal addends. **2.NBT.2** Count within 1000; skip-count by 5s, 10s, and 100s. **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.	MP.5. Use appropriate tools strategically. MP.6. Attend to precision. MP.7. Look for and make use of structure. ==MP.8. Look for and express regularity in repeated reasoning.==
Career Readiness, Life Literacies, and Key Skills Integration **NJSLS - CRLLKS 2020** **highlight appropriate indicators for unit/domain** CRLLKS1. Act as a responsible and contributing community members and employee. ==CRLLKS2. Attend to financial well-being.== CRLLKS3. Consider the environmental, social and economic impacts of decisions. CRLLKS4. Demonstrate creativity and innovation. ==CRLLKS5. Utilize critical thinking to make sense of problems==	**21st Century Student Outcomes** http://www.battelleforkids.org/networks/p21 **Learning and Innovation Skills** **highlight appropriate indicators for unit/domain** Think Creatively Work Creatively with Others Implement Innovations Reason effectively Use Systems Thinking Make Judgments and Decisions ==Solve Problems== ==Communicate Clearly==

Board Approved: September 28, 2022

 CRLLKS6. Model integrity, ethical leadership and effective management. CRLLKS7. Plan education and career paths aligned to personal goals. CRLLKS8. Use technology to enhance productivity increase collaboration and communicate effectively.persevere in solving them. CRLLKS9. Work productively in teams while using cultural/global competence.	Collaborate with Others **Life and Career Skills** **highlight appropriate indicators for unit/domain** Adapt to Change Be Flexible Manage Goals and Time Work Independently Be Self-directed Learners Interact Effectively with Others Work Effectively in Diverse Teams
Enduring Understandings ● How to use addition and subtraction properties ● How to count on and count back to solve addition and subtraction word problems ● How to use related facts to complete fact families ● How to use doubles to fluently add and subtract ● How to make a 10 to help you add ● How to skip count by 2s, 5s, and 10s ● How to use repeated addition to find the total number of objects when the objects are in equal groups ● How to identify even and odd numbers and how to determine two equal addends of an even number ● How to add two two-digit numbers by taking apart and making numbers that end in zero ● How to regroup ones as tens when adding two-digit numbers. ● How to add three and four two-digit numbers ● How to write a two-digit fact family when given the	**Essential Questions** **Chapter 1 Apply Addition and Subtraction Concepts** ● What strategies can I use to add and subtract? **Chapter 2 Number Patterns** ● How can equal groups help me add? **Chapter 3 Add Two-Digit Numbers** ● How can I add two-digit numbers? **Chapter 4 Subtract Two-Digit Numbers** ● How can I subtract two-digit numbers?

three numbers in the fact family
- How to take apart a number to make a ten to subtract
- How to regroup 1 ten as 10 ones when subtracting with a two-digit number
- How to check subtraction with addition

Content Knowledge	Skills
My Math Chapter 1 1. Addition Properties 2. Count On to Add 3. Doubles and Near Doubles 4. Make a 10 5. Add Three Numbers 6. Problem-Solving Strategy: Write a Number Sentence 7. Count back to Subtract 8. Subtract All and Subtract Zero 9. Use Doubles to Subtract 10. Relate Addition and Subtraction 11. Missing Addends 12. Fact Families 13. Two-Step Word Problems **My Math Chapter 2** 1. Skip Count on a Hundred Chart 2. Skip Count by 2s, 5s, and 10s 3. Problem-Solving Strategy: Find a Pattern 4. Repeated Addition 5. Repeated Addition with Arrays 6. Even and Odd Numbers 7. Sums of Equal Numbers	**My Math Chapter 1** 1. Use the Commutative Property and the Identity Property to find Sums. 2. Use a number line to count on when adding. 3. Use doubles and near doubles to find sums. 4. Make a 10 to solve addition problems. 5. Add three numbers to find the sum. 6. Write a number sentence to solve problems. 7. Count back to find the difference. 8. Subtract zero or subtract all to find the difference. 9. Use double facts to find the difference. 10. Use addition facts to subtract. 11. Use subtraction facts to help find missing addends 12. Use related facts to write fact families. 13. Solve word problems that involve two steps. **My Math Chapter 2** 1. Use patterns to skip count. 2. Model skip counting to find the total in equal groups. 3. Find a pattern to solve problems. 4. Use repeated addition to add equal groups. 5. Use arrays with repeated addition. 6. Find even and odd numbers in number patterns. 7. Find sums of equal numbers. **My Math Chapter 3** 1. Take apart an addend to make a ten to add

My Math Chapter 3
1. Take Apart Tens to Add
2. Regroup Ones as Tens
3. Add to a Two-Digit Number
4. Add Two-Digit Numbers
5. Rewrite Two-Digit Addition
6. Add Three and Four Two-Digit Numbers
7. Problem-Solving Strategy: Make a Model

My Math Chapter 4
1. Two-Digit Fact Families
2. Take Apart Tens to Subtract
3. Regroup a Ten as Ones
4. Subtract From a Two-Digit Number
5. Subtract Two-Digit Numbers
6. Rewrite Two-Digit Subtraction
7. Check Subtraction
8. Problem-Solving Strategy: Write a Number Sentence
9. Two-Step Word Problems

2. Use models to regroup ones as tens to add
3. Add one-digit numbers and two-digit numbers
4. Add two-digit numbers
5. Rewrite horizontal addition problems vertically to add.
6. Add three and four two-digit numbers.
7. Make a model to solve problems.

My Math Chapter 4
1. Use related facts to make two-digit fact families.
2. Take apart numbers to make a ten to subtract.
3. Use models to regroup and find differences.
4. Subtract one-digit numbers from two-digit numbers.
5. Subtract two-digit numbers.
6. Rewrite a horizontal two-digit subtraction sentence vertically before subtracting.
7. Use addition to check subtraction
8. Write a number sentence to solve problems.
9. Read and solve two-step word problems.

Primary and Supplementary Resources

Grade 2 My Math Teacher Edition
Grade 2 My Math Student Edition
Grade 2 Pacing Calendar
Chapter Vocabulary Cards

My Math Resources

EdConnect Login

Illustrative Mathematics

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[iReady](#)

i-Ready makes differentiated instruction a practical reality for teachers and students. *i-Ready*:
 - ➢ integrates powerful assessments and rich insights with effective and engaging instruction in reading and mathematics to address students' individual needs.
 - ➢ empowers teachers every day to make more informed instructional decisions.
 - ➢ motivates students with access to their own personalized path to growth.

[XtraMath](#)
 - ➢ This program helps students practice their math facts for addition, subtraction, multiplication, and addition.
 - ➢ Can individualize the fluency skills for each student.
 - ➢ Can run reports to determine progress.

[Scholastic Study Jams](#)
 - ➢ Fun videos which explain common mathematics concepts.
 - ➢ Questions at the end of the video reinforce the concepts.

[Khan Academy](#)
 - ➢ a set of online tools that help educate students. The organization produces short lessons in the form of YouTube videos.
 - ➢ Its website also includes supplementary practice exercises and materials for educators.

2nd grade Flip Book:

https://drive.google.com/file/d/1o5qNSIvyDPhaabNIi2Dn4wH8_qiTFDcy/view?usp=sharing

101 Math Discourse Questions:

http://www.casamples.com/downloads/100MathDiscourseQuestions_Printable.pdf

Asking Effective Questions

http://www.edu.gov.on.ca/eng/literacynumeracy/inspire/research/CBS_AskingEffectiveQuestions.pdf

K-2 Fluency Resources:

https://achievethecore.org/content/upload/Math%20Fluency%20Resources_Grade%20K.pdf

Achieve the Core Coherence Map

Assessments:

Chapter 1:
1. Diagnostic Assessment: Am I Ready? completed in SE or printed from *Assessment Masters*. A ready-made diagnostic test is available online.
2. Check My Progress SE or *Assessment Masters*. A bank of questions is available in the Assessment tab in ConnectED.
3. Ch. 1 Summative Assessment completed in ConnectED or printed from *Assessment Masters*
4. Ch. 1 Project

Chapter 2:
1. Diagnostic Assessment: Am I Ready? Completed in SE or printed from *Assessment Masters*. A ready-made diagnostic test is available online.
2. Check My Progress SE or *Assessment Masters*. A bank of questions is available in the Assessment tab in ConnectED.
3. Ch. 2 Summative Assessment completed in ConnectED or printed from *Assessment Masters*.
4. Chapter 2 Project

Chapter 3:
1. Diagnostic Assessment: Am I Ready? Completed in SE or printed from *Assessment Masters*. A ready-made diagnostic test is available online.
2. Check My Progress SE, or use *Assessment Masters*. A bank of questions is available in the Assessment tab in ConnectED.
3. Check My Progress SE, or use *Assessment Masters*.. A bank of questions is available in the Assessment tab in ConnectED.
4. Ch. 3 Summative Assessment completed in ConnectED or printed from *Assessment Masters*.
5. Chapter 3 Project

Chapter 4:
1. Diagnostic Assessment: Am I Ready? Completed in SE or printed from *Assessment Masters*. A ready-made diagnostic test is available online.
2. Check My Progress SE, or use *Assessment Masters*. A bank of questions is available in the Assessment tab in ConnectED.

Board Approved: September 28, 2022

3. Ch. 4 Summative Assessment completed in ConnectED or printed from *Assessment Masters.*
4. Chapter 4 Project

Differentiation in the Mathematics Classroom	

Special Education Students	**English Language Learners**
➢ Provide number charts/ number lines (or calculators) to students who struggle with fluency. ➢ Represent numbers in place value charts. ➢ Give students copies of place value charts to organize their thoughts while completing their work. ➢ Assign fewer complex problems and have students illustrate or explain the reasoning they use. ➢ Emphasize the role of diagramming in interpreting and solving problems in mathematics. ➢ Provide students with graph paper to organize and reduce errors being made due to handwriting. ➢ Use tasks that provide multiple entry points and provide scaffolds that support student participation. ➢ Have a vocabulary wall. ➢ Provide reduced amount of homework for struggling learners. Give them a few relevant math problems rather than an entire worksheet. ➢ Conference with the students often to learn about how they think about math.	➢ Create Vocabulary Banks ➢ Use manipulatives ➢ Modify teacher talk and practice wait time ➢ Elicit nonverbal responses, like a thumbs up or down ➢ Use sentence frames ➢ Comprehensible input ➢ Contextualized instruction ➢ A low-anxiety learning environment ➢ Meaningful engagement in learning activities
At-Risk Students	**504 Students**
➢ Reduce the number of problems given ➢ Provide calculators ➢ Give extra time	➢ Provide a checklist of the steps needed to complete the problem ➢ Provide place value charts ➢ Provide lots of white-space to make it less busy ➢ If still struggling, reteach and retest

Board Approved: September 28, 2022

Gifted and Talented Students
- ➢ Use more-challenging numbers
- ➢ Add additional steps by combining standards
- ➢ Introduce the next-grade-level standard
- ➢ Know Their Interests – Start by having students complete an interest inventory like this one Student Interest Survey
- ➢ Keep Them Active - Gifted students often need to have the ability to move when learning
- ➢ Offer Flexible Seating - Try to offer different seating options for students: beanbag chairs, carpet squares, pillows, director chairs … the list can go on and on.
- ➢ Share Current Events - Current events are important to incorporate into gifted programming. We want these students to be thinking about how they can use their talents to solve real-world problems.
- ➢ Practice Like Professionals - Allow students to practice like the professionals. Use the same processes that professionals use.
- ➢ Locate Authentic Audiences - The work students create should have a real audience and be appreciated by those who authentically would benefit from its completion. Younger students are a great first authentic audience.

Domain 2: Numbers and Operations in Base Ten	
Chapter 5 - Place Value to 1,000 Chapter 6 - Add Three-Digit Numbers Chapter 7 - Subtract Three-Digit Numbers	
NJ 2016 Student Learning Standards: Mathematics Grade 2 **Number and Operations in Base Ten** **2.NBT.1. - Understand that three digits of a three-digit number** **represent amounts of hundreds, tens, and ones**	**NJDOE Mathematics Curricular Framework** Guide Document and Supports Mathematics Curricular Framework
	Mathematical Practices

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2.NBT.1a - 100 can be thought of as a bundle of ten tens - called a "hundred". **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. **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. **2.NBT.7** - Add and subtract within 1,000, 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 and 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.	**MP. The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.** **highlight appropriate indicators for unit/domain** MP.1. Make sense of problems and persevere in solving them. MP.2. Reason abstractly and quantitatively. MP.3. Construct viable arguments and critique the reasoning of others. MP.4. Model with mathematics. MP.5. Use appropriate tools strategically. MP.6. Attend to precision. MP.7. Look for and make use of structure. MP.8. Look for and express regularity in repeated reasoning.
Career Readiness, Life Literacies, and Key Skills Integration **NJSLS - CRLLKS 2020** **highlight appropriate indicators for unit/domain** CRLLKS1. Act as a responsible and contributing community	**21st Century Student Outcomes** http://www.battelleforkids.org/networks/p21 **Learning and Innovation Skills** **highlight appropriate indicators for unit/domain** Think Creatively Work Creatively with Others

members and employee.
CRLLKS2. Attend to financial well-being.
CRLLKS3. Consider the environmental, social and economic impacts of decisions.
CRLLKS4. Demonstrate creativity and innovation.
CRLLKS5. Utilize critical thinking to make sense of problems and persevere in solving them
CRLLKS6. Model integrity, ethical leadership and effective management.
CRLLKS7. Plan education and career paths aligned to personal goals.
CRLLKS8. Use technology to enhance productivity increase collaboration and communicate effectively.persevere in solving them.
CRLLKS9. Work productively in teams while using cultural/global competence.

Implement Innovations
Reason effectively
Use Systems Thinking
Make Judgments and Decisions
Solve Problems
Communicate Clearly
Collaborate with Others

Life and Career Skills
highlight appropriate indicators for unit/domain
Adapt to Change
Be Flexible
Manage Goals and Time
Work Independently
Be Self-directed Learners
Interact Effectively with Others
Work Effectively in Diverse Teams

Enduring Understandings
- How to write a given amount of hundreds as tens and ones
- How to represent a three-digit number with base-ten blocks, in a place-value chart, and in standard form
- How to use place value to write a number that is 1,000 or less in standard form, word form, and expanded form
- How to complete a counting pattern that increases by 5s, 10s, or 100s
- How to compare numbers to 1,000
- How to take apart an addend to make a hundred to add
- How to add two hundreds

Essential Questions
Chapter 5 Place Value to 1,000
- How can I use place value?
Chapter 6 Add Three-Digit Numbers
- How can I add three-digit numbers?
Chapter 7 Subtract Three-Digit Numbers
- How can I subtract three-digit numbers?

Board Approved: September 28, 2022

- How to mentally add 10 or 100 to a three-digit number
- How to add three-digit numbers that involve regrouping the ones, tens, or both place values
- How to take apart one of the numbers in a subtraction problem to make a hundred so that it is easier to subtract
- How to subtract two hundreds
- How to mentally subtract 10 or 100 from a three-digit number
- How to subtract three-digit numbers that involve regrouping the tens, hundreds, or both place values
- How to subtract three-digit numbers when the top number ends in two zeros

Content Knowledge	Skills
My Math Chapter 5	**My Math Chapter 5**
1. Hundreds	1. Relate hundreds, tens, and ones.
2. Hundreds, Tens, and Ones	2. Read, write, and model numbers to 999.
3. Place Value to 1,000	3. Identify and use words, models, and expanded form to represent numbers to 1,000.
4. Problem-Solving Strategy: Use Logical Reasoning	4. Use logical reasoning to solve problems.
5. Read and Write Numbers to 1,000	5. Read and write numbers to 1,000.
6. Count by 5s, 10s, and 100s	6. Find counting patterns.
7. Compare Numbers to 1,000	7. Compare three-digit numbers using $<, >$, and $=$.
My Math Chapter 6	**My Math Chapter 6**
1. Make a Hundred to Add	1. Make a hundred to add a three-digit number.
2. Add Hundreds	2. Add numbers in the hundreds.
3. Mentally Add 10 or 100	3. Add 10 or 100 mentally.
4. Regroup Ones to Add	4. Regroup the ones to add three-digit numbers.
5. Regroup Tens to Add	5. Regroup tens to add three-digit numbers.
6. Add Three-Digit Numbers	6. Add three-digit numbers with regrouping.
7. Rewrite Three-Digit Addition	7. Given a three-digit addition problem written horizontally, rewrite it vertically before adding.
8. Problem-Solving Strategy: Guess, Check and Revise	

My Math Chapter 7
1. Take Apart Hundreds to Subtract
2. Subtract Hundreds
3. Mentally Subtract 10 or 100
4. Regroup Tens
5. Regroup Hundreds
6. Subtract Three-Digit Numbers
7. Rewrite Three-Digit Subtraction
8. Problem-Solving Strategy: Write a Number Sentence
9. Subtract Across Zeros

8. Use the guess, check, and revise strategy to solve problems.

My Math Chapter 7
1. Make a hundred to subtract a three-digit number.
2. Subtract numbers in the hundreds.
3. Mentally subtract numbers by 10 or 100.
4. Regroup tens to subtract three-digit numbers.
5. Regroup hundreds to subtract three-digit numbers.
6. Subtract three-digit numbers.
7. Rewrite horizontal three-digit subtraction as vertical three-digit subtraction.
8. Use the write a number sentence strategy to solve problems.
9. Subtract from numbers ending in zero.

Primary and Supplementary Resources

Grade 2 My Math Teacher Edition
Grade 2 My Math Student Edition
Grade 2 Pacing Calendar
Chapter Vocabulary Cards

My Math Resources

EdConnect Login

Illustrative Mathematics

iReady
i-Ready makes differentiated instruction a practical reality for teachers and students. *i-Ready*:

- ➢ integrates powerful assessments and rich insights with effective and engaging instruction in reading and mathematics to address students' individual needs.
- ➢ empowers teachers every day to make more informed instructional decisions.
- ➢ motivates students with access to their own personalized path to growth.

XtraMath
- ➢ This program helps students practice their math facts for addition, subtraction, multiplication, and addition.
- ➢ Can individualize the fluency skills for each student.
- ➢ Can run reports to determine progress.

Scholastic Study Jams
- ➢ Fun videos which explain common mathematics concepts.
- ➢ Questions at the end of the video reinforce the concepts.

Khan Academy
- ➢ a set of online tools that help educate students. The organization produces short lessons in the form of YouTube videos.
- ➢ Its website also includes supplementary practice exercises and materials for educators.

2nd grade Flip Book:

https://drive.google.com/file/d/1o5qNSIvyDPhaabNIi2Dn4wH8_qiTFDcy/view?usp=sharing

101 Math Discourse Questions:

http://www.casamples.com/downloads/100MathDiscourseQuestions_Printable.pdf

Asking Effective Questions

http://www.edu.gov.on.ca/eng/literacynumeracy/inspire/research/CBS_AskingEffectiveQuestions.pdf

K-2 Fluency Resources:

https://achievethecore.org/content/upload/Math%20Fluency%20Resources_Grade%20K.pdf

Achieve the Core Coherence Map

https://achievethecore.org/coherence-map/2

Assessments:

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Chapter 5:
1. Diagnostic Assessment: Am I Ready? completed in SE or printed from *Assessment Masters*. A ready-made diagnostic test is available online.
2. Check My Progress SE or *Assessment Masters*. A bank of questions is available in the Assessment tab in ConnectED.
3. Ch. 5 Summative Assessment completed in ConnectED or printed from *Assessment Masters*
4. Ch. 5 Project

Chapter 6:
1. Diagnostic Assessment: Am I Ready? Completed in SE or printed from *Assessment Masters*. A ready-made diagnostic test is available online.
2. Check My Progress SE or *Assessment Masters*. A bank of questions is available in the Assessment tab in ConnectED.
3. Ch. 6 Summative Assessment completed in ConnectED or printed from *Assessment Masters*.
4. Chapter 6 Project

Chapter 7:
1. Diagnostic Assessment: Am I Ready? Completed in SE or printed from *Assessment Masters*. A ready-made diagnostic test is available online.
2. Check My Progress SE, or use *Assessment Masters*. A bank of questions is available in the Assessment tab in ConnectED.
3. Check My Progress SE, or use *Assessment Masters*.. A bank of questions is available in the Assessment tab in ConnectED.
4. Ch. 7 Summative Assessment completed in ConnectED or printed from *Assessment Masters*.
5. Chapter 7 Project

Differentiation in the Mathematics Classroom

Special Education Students	**English Language Learners**
➢ Provide number charts/ number lines (or calculators) to students who struggle with fluency. ➢ Represent numbers in place value charts. ➢ Give students copies of place value charts to organize their thoughts while completing their work.	➢ Create Vocabulary Banks ➢ Use manipulatives ➢ Modify teacher talk and practice wait time ➢ Elicit nonverbal responses, like a thumbs up or down ➢ Use sentence frames

➢ Assign fewer complex problems and have students illustrate or explain the reasoning they use. ➢ Emphasize the role of diagramming in interpreting and solving problems in mathematics. ➢ Provide students with graph paper to organize and reduce errors being made due to handwriting. ➢ Use tasks that provide multiple entry points and provide scaffolds that support student participation. ➢ Have a vocabulary wall. ➢ Provide reduced amount of homework for struggling learners. Give them a few relevant math problems rather than an entire worksheet. ➢ Conference with the students often to learn about how they think about math.	➢ Comprehensible input ➢ Contextualized instruction ➢ A low-anxiety learning environment ➢ Meaningful engagement in learning activities
At-Risk Students ➢ Reduce the number of problems given ➢ Provide calculators ➢ Give extra time	**504 Students** ➢ Provide a checklist of the steps needed to complete the problem ➢ Provide place value charts ➢ Provide lots of white-space to make it less busy ➢ If still struggling, reteach and retest
Gifted and Talented Students ➢ Use more-challenging numbers ➢ Add additional steps by combining standards ➢ Introduce the next-grade-level standard ➢ Know Their Interests – Start by having students complete an interest inventory like this one Student Interest Survey ➢ Keep Them Active - Gifted students often need to have the ability to move when learning ➢ Offer Flexible Seating - Try to offer different seating options for students: beanbag chairs, carpet squares, pillows, director chairs … the list can go on and on. ➢ Share Current Events - Current events are important to incorporate into gifted programming. We want these students to be thinking about how they can use their talents to solve real-world problems. ➢ Practice Like Professionals - Allow students to practice like the professionals. Use the same processes that professionals use.	

> ➤ Locate Authentic Audiences - The work students create should have a real audience and be appreciated by those who authentically would benefit from its completion. Younger students are a great first authentic audience.

Domain 3: Measurement and Data

Chapter 8 - Money
Chapter 9 - Data Analysis
Chapter 10 - Time
Chapter 11 - Customary and Metric Lengths

NJ 2016 Student Learning Standards: Mathematics Grade 2	NJDOE Mathematics Curricular Framework [Guide Document and Supports](link)
Measurement and Data	[Mathematics Curricular Framework](link)
2.MD.1 - Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.	**Mathematical Practices**
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.	**MP. The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.**
2.MD.3 - Estimate lengths using units of inches, feet, centimeters, and meters.	**highlight appropriate indicators for unit/domain** MP.1. Make sense of problems and persevere in solving them. MP.2. Reason abstractly and quantitatively.

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.	MP.3. Construct viable arguments and critique the reasoning of others.
	MP.4. Model with mathematics.
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.	MP.5. Use appropriate tools strategically.
	MP.6. Attend to precision.
	MP.7. Look for and make use of structure.
	MP.8. Look for and express regularity in repeated reasoning.
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.	
2.MD.7 - Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m.	
2.MD.8 - Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using money and cents symbols appropriately.	
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.	
Career Readiness, Life Literacies, and Key Skills Integration **NJSLS - CRLLKS 2020** **highlight appropriate indicators for unit/domain** CRLLKS1. Act as a responsible and contributing community members and employee. CRLLKS2. Attend to financial well-being. CRLLKS3. Consider the environmental, social and economic impacts of decisions. CRLLKS4. Demonstrate creativity and innovation. CRLLKS5. Utilize critical thinking to make sense of problems and persevere in solving them CRLLKS6. Model integrity, ethical leadership and effective management. CRLLKS7. Plan education and career paths aligned to personal goals. CRLLKS8. Use technology to enhance productivity increase collaboration and communicate effectively.persevere in solving them. CRLLKS9. Work productively in teams while using	**21st Century Student Outcomes** http://www.battelleforkids.org/networks/p21 **Learning and Innovation Skills** **highlight appropriate indicators for unit/domain** Think Creatively Work Creatively with Others Implement Innovations Reason effectively Use Systems Thinking Make Judgments and Decisions Solve Problems Communicate Clearly Collaborate with Others **Life and Career Skills** **highlight appropriate indicators for unit/domain** Adapt to Change Be Flexible Manage Goals and Time Work Independently Be Self-directed Learners Interact Effectively with Others

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cultural/global competence.	Work Effectively in Diverse Teams
Enduring Understandings ● How to find the value of a group of coins ● How to find the value of a group of coins and determine if the value equals $1.00 ● How to solve word problems involving quarters, dimes, nickels, and pennies. ● How to take a survey and record the data on a tally chart ● How to make and analyze picture graphs ● How to make and analyze bar graphs ● How to make and analyze line plots ● How to tell time to the hour on an analog and digital clock ● How to tell time to the half hour and on an analog and digital clock ● How to show and tell time to the quarter hour ● How to skip count to tell time to five-minute intervals ● How to decide if an activity takes place in A.M. or P.M. ● How to estimate and then find the length of the object ● How to select and use a measurement tool ● Compare customary and metric lengths ● How to use a number line to find the length of an object ● How to collect data and display it on a graph	**Essential Questions** **Chapter 8 Money** ● How do I count and use money? **Chapter 9 Data Analysis** ● How can I record and analyze data? **Chapter 10 Time** ● How do I use and tell time? **Chapter 11 Customary and Metric Lengths** ● How can I measure objects?
Content Knowledge **My Math Chapter 8** 1. Pennies, Nickels, and Dimes 2. Quarters 3. Count Coins	**Skills** **My Math Chapter 8** 1. Count to find the value of pennies, nickels, and dimes 2. Count to find the value of coins 3. Skip count and count on to determine the value of of a

4. Problem-Solving Strategy: Act It Out
5. Dollars

My Math Chapter 9
1. Take a Survey
2. Make Picture Graphs
3. Analyze Picture Graphs
4. Make Bar Graphs
5. Analyze Bar Graphs
6. Problem-Solving Strategy: Make a Table
7. Make Line Plots
8. Analyze Line Plots

My Math Chapter 10
1. Time to the Hour
2. Time to the Half Hour
3. Problem-Solving Strategy: Find a Pattern
4. Time to the Quarter Hour
5. Time to Five Minute Intervals
6. A.M. and P.M.

My Math Chapter 11
1. Inches
2. Feet and Yards
3. Select and Use Customary Tools
4. Compare Customary Lengths
5. Relate Inches, Feet, and Yards
6. Problem-Solving Strategy: Use Logical Reasoning
7. Centimeters and Meters
8. Select and Use Metric Tools
9. Compare Metric Lengths
10. Relate Centimeters and Meters
11. Measure on a Number Line

group of coins.
4. Use the act it out strategy to solve problems.
5. Use coins the make one dollar.

My Math Chapter 9
1. Take a survey and organize data using tally marks.
2. Use data to create picture graphs.
3. Analyze data on picture graphs.
4. Make bar graphs to show data.
5. Draw conclusions and answer questions based on bar graphs.
6. Make a table to solve problems.
7. Use data to create line plots.
8. Analyze data on line plots.

My Math Chapter 10
1. Tell and write time to the nearest hour.
2. Tell and write time to the nearest half hour.
3. Find a pattern to solve problems.
4. Tell and write time to the quarter hour.
5. Tell and write time to the nearest five minutes.
6. Use A.M. and P.M. when telling and writing time.

My Math Chapter 11
1. Use an inch ruler to measure objects.
2. Measure objects in feet and yards.
3. Choose the appropriate customary tool and objects by length.
4. Measure to compare customary lengths.
5. Use measurement to relate inches, feet, and yards.
6. Use the logical reasoning strategy to solve problems.
7. Use a centimeter ruler and a meterstick to measure objects.
8. Choose the appropriate metric tool and measure objects

12. Measurement Data	by length. 9. Use measurement to compare metric length. 10. Use measurement to relate centimeters and meters. 11. Use a number line to measure objects. 12. Measure lengths to generate data shown on a line plot.

Primary and Supplementary Resources

Grade 2 My Math Teacher Edition
Grade 2 My Math Student Edition
Grade 2 Pacing Calendar
Chapter Vocabulary Cards

My Math Resources

EdConnect Login

Illustrative Mathematics

iReady
i-Ready makes differentiated instruction a practical reality for teachers and students. *i-Ready*:
  ➢ integrates powerful assessments and rich insights with effective and engaging instruction in reading and mathematics to address students' individual needs.
  ➢ empowers teachers every day to make more informed instructional decisions.
  ➢ motivates students with access to their own personalized path to growth.
XtraMath
  ➢ This program helps students practice their math facts for addition, subtraction, multiplication, and addition.
  ➢ Can individualize the fluency skills for each student.
  ➢ Can run reports to determine progress.
Scholastic Study Jams
  ➢ Fun videos which explain common mathematics concepts.
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Khan Academy
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https://drive.google.com/file/d/1o5qNSIvyDPhaabNIi2Dn4wH8_qiTFDcy/view?usp=sharing

101 Math Discourse Questions:

http://www.casamples.com/downloads/100MathDiscourseQuestions_Printable.pdf

Asking Effective Questions

http://www.edu.gov.on.ca/eng/literacynumeracy/inspire/research/CBS_AskingEffectiveQuestions.pdf

K-2 Fluency Resources:

https://achievethecore.org/content/upload/Math%20Fluency%20Resources_Grade%20K.pdf

Achieve the Core Coherence Map
https://achievethecore.org/coherence-map/2

Assessments:

Chapter 8:
1. Diagnostic Assessment: Am I Ready? completed in SE or printed from *Assessment Masters*. A ready-made diagnostic test is available online.
2. Check My Progress SE or *Assessment Masters*. A bank of questions is available in the Assessment tab in ConnectED.
3. Ch. 8 Summative Assessment completed in ConnectED or printed from *Assessment Masters*
4. Ch. 8 Project

Chapter 9:

1. Diagnostic Assessment: Am I Ready? Completed in SE or printed from *Assessment Masters*. A ready-made diagnostic test is available online.
2. Check My Progress SE or *Assessment Masters*. A bank of questions is available in the Assessment tab in ConnectED.
3. Ch. 9 Summative Assessment completed in ConnectED or printed from *Assessment Masters*.
4. Chapter 9 Project

Chapter 10:
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2. Check My Progress SE, or use *Assessment Masters*. A bank of questions is available in the Assessment tab in ConnectED.
3. Ch. 10 Summative Assessment completed in ConnectED or printed from *Assessment Masters*.
4. Chapter 10 Project

Chapter 11:
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2. Check My Progress SE, or use *Assessment Masters*. A bank of questions is available in the Assessment tab in ConnectED.
3. Ch. 11 Summative Assessment completed in ConnectED or printed from *Assessment Masters*.
4. Chapter 11 Project

Differentiation in the Mathematics Classroom

Special Education Students
➢ Provide number charts/ number lines (or calculators) to students who struggle with fluency.
➢ Represent numbers in place value charts.
➢ Give students copies of place value charts to organize their thoughts while completing their work.
➢ Assign fewer complex problems and have students illustrate or explain the reasoning they use.

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➢ Create Vocabulary Banks
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Domain 4: Geometry

Chapter 12: Geometric Shapes and Equal Shares

NJ 2016 Student Learning Standards: Mathematics Grade 2	NJDOE Mathematics Curricular Framework
Number and Operations in Base Ten	[Guide Document and Supports](#)
2.G.1 - Recognize and draw shapes having special attributes, such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.	[Mathematics Curricular Framework](#)
2.G.2 - Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	**Mathematical Practices**
	MP. The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students.
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, etc. and describe the whole as two halves, three thirds,	**highlight appropriate indicators for unit/domain**
	MP.1. Make sense of problems and persevere in solving them. MP.2. Reason abstractly and quantitatively. MP.3. Construct viable arguments and critique the reasoning of others.

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four fourths. Recognize that equal shares of identical wholes need not have the same shape.	<mark>MP.4. Model with mathematics.</mark> MP.5. Use appropriate tools strategically. MP.6. Attend to precision. <mark>MP.7. Look for and make use of structure.</mark> MP.8. Look for and express regularity in repeated reasoning.
Career Readiness, Life Literacies, and Key Skills Integration **NJSLS - CRLLKS 2020** **highlight appropriate indicators for unit/domain** CRLLKS1. Act as a responsible and contributing community members and employee. <mark>CRLLKS2. Attend to financial well-being.</mark> CRLLKS3. Consider the environmental, social and economic impacts of decisions. CRLLKS4. Demonstrate creativity and innovation. <mark>CRLLKS5. Utilize critical thinking to make sense of problems and persevere in solving them</mark> CRLLKS6. Model integrity, ethical leadership and effective management. CRLLKS7. Plan education and career paths aligned to personal goals. CRLLKS8. Use technology to enhance productivity increase collaboration and communicate effectively.persevere in solving them. CRLLKS9. Work productively in teams while using cultural/global competence.	**21ˢᵗ Century Student Outcomes** http://www.battelleforkids.org/networks/p21 **Learning and Innovation Skills** **highlight appropriate indicators for unit/domain** <mark>Think Creatively</mark> <mark>Work Creatively with Others</mark> Implement Innovations <mark>Reason effectively</mark> <mark>Use Systems Thinking</mark> Make Judgments and Decisions <mark>Solve Problems</mark> Communicate Clearly Collaborate with Others **Life and Career Skills** **highlight appropriate indicators for unit/domain** Adapt to Change Be Flexible Manage Goals and Time <mark>Work Independently</mark> <mark>Be Self-directed Learners</mark> Interact Effectively with Others Work Effectively in Diverse Teams

Enduring Understandings ● How to identify and describe two-dimensional shapes. ● How to identify and describe three-dimensional shapes. ● How to partition two-dimensional shapes into equal parts.	**Essential Questions** **Chapter 12 Geometric Shapes and Equal Shares** ● How do I count and use money?
Content Knowledge **My Math Chapter 12** 1. Pennies, Nickels, and Dimes 2. Quarters 3. Count Coins 4. Problem-Solving Strategy: Act It Out 5. Dollars	**Skills** **My Math Chapter 12** 1. Identify two-dimensional geometric shapes. 2. Recognize attributes (sides and angles) of two-dimensional shapes. 3. Use the draw a diagram strategy to solve problems. 4. Identify three-dimensional geometric shapes. 5. Describe the faces, edges, and vertices of three-dimensional shapes. 6. Identify two-dimensional shapes and solid shapes. 7. Partition two-dimensional shapes into two, three, and four equal shares. 8. Determine the area of a rectangle.
Primary and Supplementary Resources Grade 2 My Math Teacher Edition Grade 2 My Math Student Edition Grade 2 Pacing Calendar Chapter Vocabulary Cards My Math Resources	

EdConnect Login

Illustrative Mathematics

iReady

i-Ready makes differentiated instruction a practical reality for teachers and students. *i-Ready*:
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- ➢ empowers teachers every day to make more informed instructional decisions.
- ➢ motivates students with access to their own personalized path to growth.

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- ➢ Can run reports to determine progress.

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- ➢ Questions at the end of the video reinforce the concepts.

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K-2 Fluency Resources:

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4. Ch. 12 Project

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