

# Clinton-Glen Gardner School District



## Curriculum Management System

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**Mathematics**

**Grade 2**

**July 2011**

**\* For adoption by all regular education programs as specified and for adoption or adaptation by all Special Education Programs in accordance with Board of Education Policy #2200.**

**Board Approved: July 26, 2011  
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# CLINTON-GLEN GARDNER SCHOOL DISTRICT

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## Acknowledgments

During the 2010-2011 school year, the Clinton-Glen Gardner School District developed a curriculum consortium with seven other North-Voorhees sending districts, including Bethlehem Township, Califon, Clinton Township, High Bridge, Lebanon Borough, Lebanon Township and Tewksbury Township. This consortium represents a collaborative effort that created an opportunity to bring together math expertise from each of the participating districts. The following individuals are acknowledged for their assistance in the preparation of this Curriculum Management System:

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# **Clinton-Glen Gardner School District**

## **Mission**

The mission of Clinton Public School is to inspire our students to become contributing members of society who are independent, innovative, life-time learners equipped with the necessary skills to meet the demands of our ever-changing world.

## **Philosophy**

The economy in which graduates of our schools will seek employment is more competitive than ever and is rapidly changing in response to advances in technology. To compete in today's global, information-based economy, students must be able to solve real problems, reason effectively, and make logical connections. In this changing world those who have a good understanding of mathematics will have many opportunities and doors open to them throughout their lives. Today's workforce requires mathematical knowledge and skills in areas such as data analysis, problem-solving, pattern recognition, statistics and probability; therefore, our school's curriculum must prepare students for these expectations.

The Clinton-Glen Gardner School is committed to providing all students with the opportunity and the support necessary to learn significant mathematics with depth and understanding. To that end, students will engage in a wide variety of learning activities designed to develop their ability to reason and solve complex problems. Calculators, computers, manipulatives, technology, and the Internet will be used as tools to enhance learning and assist in problem solving. Group work, projects, literature, and interdisciplinary activities will make mathematics more meaningful and aid understanding. Classroom instruction will be designed to meet the learning needs of all children and will reflect a variety of learning styles.

The math curriculum fosters students who:

- Develop computational, conceptual, problem-solving and reasoning skills
- Demonstrate their understanding of mathematical concepts based on higher levels of mathematical thought
- Use technology and other tools as an integral part of solving mathematical problems

**New Jersey State Department of Education  
Common Core State Standards**

**A note about Common Core State Standards for Mathematics.**

The Common Core State Standards for Mathematics were adopted in 2010. The standards referenced in this curriculum guide refer to the progress indicators in these newly adopted standards. A complete copy of the Common Core State Standards for Mathematics may be found at:

<http://www.corestandards.org/the-standards/mathematics> (by grade level)

<http://www.corestandards.org/the-standards> (in their entirety)

**A note about 21<sup>st</sup> Century Life and Careers Standards and Cumulative Progress Indicators.**

The New Jersey Core Curriculum Content Standards for 21<sup>st</sup> Century Life and Careers were revised in 2009. The Cumulative Progress Indicators (CPI's) referenced in this curriculum guide refer to these new standards. A complete copy of the new Core Curriculum Content Standards for 21<sup>st</sup> Century Life and Careers may be found at:

<http://www.state.nj.us/education/cccs/standards/9/>

## Mathematics: Standards for Mathematical Practice Interpreted for Kindergarten Through Second Grade

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important “processes and proficiencies” with long standing importance in mathematics education. The first of these are the NCTM process standards of problem solving, reasoning and proof, communication, representation and connections. The second are the strands of mathematical proficiency specified in the National Research Council’s report *Adding It Up*: adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately) and productive disposition (habitual inclination to see mathematics as sensible, useful and worthwhile, coupled with a belief in diligence and one’s own efficacy).

The Standards for Mathematical Practice are:

### 1. **MAKE SENSE OF PROBLEMS AND PERSEVERE IN SOLVING THEM.**

As you look at or read a mathematical problem, think about what it means and what it is asking you to do. Also think about what would be a good way to start solving it. Ask yourself:

- What does the problem tell me?
  - What information is given?
  - What are the relationships among parts of the problem?
  - What is the goal of solving the problem?
  - Have I seen other problems similar to this one?
- What does the problem ask me to find out (solve)?
- How should I start solving the problem?
- Can pictures or a drawing help me to figure out how to solve the problem?
- Does how I’m answering the problem make sense with what the problem is asking?
- What are some other ways to solve the problem?
- Can I use another way to check if my answer is correct?
- Does my answer make sense?

### 2. **REASON ABSTRACTLY AND QUANTITATIVELY.**

Understand the relationship of numbers and number problems and represent them using pictures, drawings or symbols. Talk about the parts of number problems using pictures, drawings or symbols as well as how the pictures, drawings or symbols represent and help explain the problem. Show how using different numbers or operations in the same problem changes it.

### 3. **CONSTRUCT VIABLE ARGUMENTS AND CRITIQUE THE REASONING OF OTHERS.**

Use objects, drawings, diagrams or actions to construct arguments about math problems with understanding and using appropriate vocabulary to explain the reasoning process. Build a local argument, communicate it with others, justify your reasoning process and respond to the reasoning process someone else uses. Express agreement if both arguments are correct and explain why an argument is flawed if it is.

**4. MODEL WITH MATHEMATICS.**

Apply mathematical skills to everyday life, society, the workplace and other situations; identify important quantities in practical situations; write an equation to describe a situation; revise solutions; use tools such as diagrams, two-way tables, graphs, flowcharts and formulas to show relationships; analyze relationships to draw conclusions, interpret results in context and reflect on whether the results make sense.

**5. USE APPROPRIATE TOOLS STRATEGICALLY.**

Identify and make decisions regarding which tool, such as paper and pencil, models, rulers, spreadsheets, etc., to use to help solve mathematical problems as well as know when a tool is not the right one to use. Use technological and other tools to deepen understanding.

**6. ATTEND TO PRECISION.**

Communicate precisely when discussing math incorporating the following:

- Use clear definitions.
- Choose, use and explain symbols correctly, consistently and appropriately.
- Specify units of measure and labels correctly.
- Avoid careless errors.
- Follow formulas to explain thinking to others.

**7. LOOK FOR AND MAKE USE OF STRUCTURE.**

Look for and identify structure and patterns in mathematics (for example, three and seven more is the same amount as seven and three more, or sort shapes according to their number of sides) and see if the pattern or structure changes.

**8. LOOK FOR AND EXPRESS REGULARITY IN REPEATED REASONING.**

Look for repetition in calculations and numeric thinking, such as skip counting. Pay attention to the whole problem and the details and continuously evaluate the accuracy and reasonableness of both intermediate and final answers.

**CONNECTING THE STANDARDS FOR MATHEMATICAL PRACTICE TO THE STANDARDS FOR MATHEMATICS CONTENT**

The Standards for Mathematical Practice describe ways in which developing student practitioners of the discipline of mathematics increasingly ought to engage with the subject matter as they grow in mathematical maturity and expertise throughout the elementary, middle and high school years. Designers of curricula, assessments and professional development should all attend to the need to connect the mathematical practices to mathematical content in mathematical instruction. The Standards for Mathematical Content are a balanced combination of procedure and understanding. Expectations that begin with the word “understand” are often especially good opportunities to connect the practices to the content. Students who lack understanding of a topic may rely on procedures too heavily. Without a flexible base from which to work, they may be less likely to consider analogous problems, represent problems coherently,

justify conclusions, apply the mathematics to practical situations, use technology mindfully to work with the mathematics, explain the mathematics accurately to other students, step back for an overview or deviate from a known procedure to find a shortcut. In short, a lack of understanding effectively prevents a student from engaging the mathematical practices. In this respect those content standards, which set an expectation of understanding are potential “points of intersection” between the Standards for Mathematical Content and the Standards for Mathematical Practice. These points of intersection are intended to be weighted toward central and generative concepts in the school mathematics curriculum that most merit time, resources, innovative energies and focus necessary to qualitatively improve the curriculum, instruction, assessment, professional development and student achievement in mathematics.

## Grade 2 Mathematics

### Scope and Sequence

<p><b>Topic: Operations and Algebraic Thinking</b></p> <ul style="list-style-type: none"><li>I. Operations<ul style="list-style-type: none"><li>a. Addition<ul style="list-style-type: none"><li>i. Writing equations</li><li>ii. Solving word problems</li><li>iii. Key words</li><li>iv. Commutative property</li><li>v. Compliments of ten</li></ul></li><li>b. Subtraction<ul style="list-style-type: none"><li>i. Writing equations</li><li>ii. Solving word problems</li><li>iii. Key words</li></ul></li><li>c. Computational fluency<ul style="list-style-type: none"><li>i. Numbers within 20</li><li>ii. Fact families</li></ul></li></ul></li><li>II. Strategies<ul style="list-style-type: none"><li>a. Counting on</li><li>b. Number line</li><li>c. Doubles</li><li>d. Doubles +1</li><li>e. Compliments of ten</li></ul></li></ul>	<p><b>Topic: Number and Operations in Base Ten</b></p> <ul style="list-style-type: none"><li>III. Place Value<ul style="list-style-type: none"><li>a. Tens and Ones</li><li>b. Greater than, less than, equal to</li><li>c. Rounding</li><li>d. Numbers through 1,000</li></ul></li><li>IV. Money<ul style="list-style-type: none"><li>a. Value of coins and bills</li><li>b. Value of coin/bill combinations</li><li>c. Create amounts of money</li><li>d. Determine change from purchases</li></ul></li><li>V. Addition with two-digit numbers<ul style="list-style-type: none"><li>a. Without regrouping</li><li>b. With regrouping</li><li>c. Estimation and answer reasonableness</li></ul></li><li>VI. Addition with three-digit numbers<ul style="list-style-type: none"><li>a. Without regrouping</li><li>b. With regrouping</li><li>c. Estimation and answer reasonableness</li></ul></li><li>VII. Subtraction with two-digit numbers<ul style="list-style-type: none"><li>a. Without regrouping</li><li>b. With regrouping</li><li>c. Estimation and answer reasonableness</li></ul></li><li>VIII. Subtraction with three-digit numbers<ul style="list-style-type: none"><li>a. Without regrouping</li><li>b. With regrouping</li><li>c. Estimation and answer reasonableness</li></ul></li></ul>

**Topic: Measurement and Data**

- IX. Measurement
  - a. Inches, feet, centimeters and meters
  - b. Compare lengths
  - c. Measurement word problems
- X. Time
  - a. Time to the 5 minute
  - b. A.M. and P.M.
  - c. Calendar skills
- XI. Data
  - a. Line plot
  - b. Circle graph
  - c. Picture graph
  - d. Bar graph
  - e. Probability

**Topic: Geometry**

- XII. Geometry
  - a. Two-dimensional and three-dimensional shapes
    - i. Faces
    - ii. Angles
    - iii. Vertices
    - iv. Edges
  - b. Compose and decompose shapes
  - c. Congruent figures
  - d. Symmetry
- XIII. Fractions
  - a. Halves
  - b. Thirds
  - c. Fourths

The Standards for Mathematical Practice stated below are to be developed with students, used by students when teaching the mathematical content here within and integrated into each of the following units.

Common Core State Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Understanding Addition and Subtraction</b>	
	<b>Subject/Grade Level:</b> <b>Grade 2</b> <b>Mathematics</b>	<b>Goal 1:</b> The student will be able to use a variety of strategies to solve addition and subtraction equations working toward fluency and automaticity.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>1.1. Join two groups together to find how many in all. (2.OA.1)</p> <p>1.2. Write an addition sentence to tell how many in all. (2.OA.1)</p> <p>1.3. Solve a story problem by writing an addition sentence. (2.OA.1)</p> <p>1.4. Take away a number of objects from a group. (2.OA.1)</p> <p>1.5. Compare two groups to find how many more/fewer. (2.NBT.4)</p> <p>1.6. Write subtraction sentences to solve both separation and comparison problems. (2.NBT.4)</p> <p>1.7. Solve problems by choosing addition or subtraction. (2.NBT.5)</p> <p>1.8. Use clue words to prompt</p>	<p><b>Essential Questions:</b> In what ways can numbers be used to tell information? How does what you know about words help you to know when to add or subtract? Why is recognizing what strategy to use for a specific purpose, helpful?</p> <p><b>Conceptual Understandings:</b> There are words that prompt us to add or subtract.  Determine what information in word problem is needed to solve the problem and what is extra.  Math sentence can be written and solved using the information found within the word problem.  There are various strategies that one can apply to solve a word problem such as: drawing and/or writing equations, estimate, number line or one hundred chart.  Addition is when you put numbers together to make a larger number.  Subtraction is when you take away to make a smaller number. When adding two numbers, reversing the numbers does not affect the sum.  There is a relationship between addition and subtraction</p>	<p><b>NOTE: The assessment models provided in this document are suggestions for the teacher. If the teacher chooses to develop his/her own model, it must be of equal or better quality and at the same or higher cognitive levels.</b></p> <p><b>Depending upon the needs of the class, the assessment questions may be answered in the form of essays, quizzes, mobiles, PowerPoint, oral reports, booklets, or other formats of measurement used by the teacher.</b></p> <p><b>Assessment Models:</b> Complete addition and subtraction equations to 20 accurately.  Identify clue word (highlight, circle or underline) that indicates addition or subtraction for a word problem and write the equation with correct answer.  List the 11 addition facts for 10.  Write the 4 equations for a given fact family.  Complete an equation with a missing addend.</p> <p><b>Additional Resources:</b></p>

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Understanding Addition and Subtraction</b>	
	<b>Subject/Grade Level:</b> <b>Grade 2</b> <b>Mathematics</b>	<b>Goal 1:</b> The student will be able to use a variety of strategies to solve addition and subtraction equations working toward fluency and automaticity.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>solving word problems for addition and subtraction. (2.OA.1)</p> <p>1.9. Use the Commutative Property (turn around fact) to find sums. (2.NBT.5, 2.NBT.9)</p> <p>1.10. Recognize facts that have sums of 10. (2.OA.2)</p> <p>1.11. Demonstrate fluency in solving addition and subtraction problems within 20. (2.OA.2)</p> <p>1.12. Write and recognize fact families. (2.OA.2)</p> <p>1.13. Find missing addends. (2.OA.1, 2.NBT.8)</p> <p>1.14. Recognize a problem and brainstorm ways to solve the problem individually or collaboratively.</p>	<p>(fact families).</p> <p>Fluency with addition and subtraction is developed when efficient strategies for adding and subtracting to used accurately.</p> <p>Different strategies (mental, paper, drawing) can be used to add and subtract numbers fluently.</p> <p>A math sentence can be written to solve for unknown information in either addition or subtraction by utilizing the inverted operation.</p>	

Suggested days of Instruction	Curriculum Management System		<b>Topic: Understanding Addition and Subtraction</b>	
	<u>Subject/Grade Level:</u> <b>Grade 2</b>		<u>Goal 1:</u> The student will be able to use a variety of strategies to solve addition and subtraction equations working toward fluency and automaticity.	
	<b>Mathematics</b>			
	Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)	Essential Questions, Conceptual Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model	
	The student will be able to:			
	(9.1.4.A.1)			
	1.15. Evaluate available resources that can assist in solving problems. (9.1.4.A.2)			
	1.16. Apply critical thinking and problem-solving skills in classroom and family settings. (9.1.4.A.5)			
	1.17. Practice collaborative skills in groups, and explain how these skills assist in completing tasks in different settings (at home, in school, and during play). (9.1.4.C.1)			
	1.18. Express needs, wants, and feelings appropriately in various situations. (9.1.4.D.2)			
	1.19. Explain the importance of understanding and following rules in family, classroom, and community settings. (9.1.4.F.3)			

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Fact Strategies for Addition and Subtraction</b>	
	<b>Subject/Grade Level:</b> <b>Grade 2</b> <b>Mathematics</b>	<b>Goal 2:</b> The student will be able to use a variety of strategies to solve addition and subtraction equations working toward fluency and automaticity.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>2.1. Count on to add 1, 2 or 3 to another number. (2.OA.2)</p> <p>2.2. Recognize doubles as a strategy. (2.OA.2)</p> <p>2.3. Use doubles +1 strategy. (2.OA.2)</p> <p>2.4. Find the sum of three addends. (2.NBT.6)</p> <p>2.5. Find sums by making a 10 when adding 9. (2.OA.2)</p> <p>2.6. Solve problems by writing number sentences. (2.OA.1)</p> <p>2.7. Use a number line to count back. (2.OA.2)</p> <p>2.8. Find differences by using</p>	<p><b>Essential Questions:</b> Why is recognizing what strategy to use for a specific purpose helpful?</p> <p>What are some different strategies that can be used to assist in solving addition and subtraction equations?</p> <p><b>Conceptual Understandings:</b> Words or drawings can be used to explain addition and subtraction strategies.</p> <p>When adding two numbers, reversing the numbers does not affect the sum.</p> <p>There is a relationship between addition and subtraction (fact families).</p> <p>Fluency with addition and subtraction is developed when efficient strategies for adding and subtracting to used accurately.</p> <p>The same strategies used for two one-digit numbers can be applied when adding three or more one-digit numbers.</p>	<p><b>NOTE: The assessment models provided in this document are suggestions for the teacher. If the teacher chooses to develop his/her own model, it must be of equal or better quality and at the same or higher cognitive levels.</b></p> <p><b>Depending upon the needs of the class, the assessment questions may be answered in the form of essays, quizzes, mobiles, PowerPoint, oral reports, booklets, or other formats of measurement used by the teacher.</b></p> <p><b>Assessment Models:</b> Demonstrate or explain the strategy used to come up with the answer to addition and subtraction equations.</p> <p><b>Additional Resources:</b></p>

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Fact Strategies for Addition and Subtraction</b>	
	<b>Subject/Grade Level:</b> <b>Grade 2</b> <b>Mathematics</b>	<b>Goal 2:</b> The student will be able to use a variety of strategies to solve addition and subtraction equations working toward fluency and automaticity.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>doubles facts. (2.OA.2)</p> <p>2.9. Find differences by using known addition facts. (2.OA.2)</p> <p>2.10. Use data in pictures to help find missing numbers in number sentences. (2.NBT.9)</p> <p>2.11. Answer addition/subtraction facts through 20 with automatic response to the equation. (2.OA.2)</p> <p>2.12. Apply critical thinking and problem-solving skills in classroom and family settings. (9.1.4.A.5)</p> <p>2.13. Practice collaborative skills in groups, and explain how these skills assist in completing tasks in different settings (at home, in school, and during play). (9.1.4.C.1)</p>		

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Fact Strategies for Addition and Subtraction</b>	
	<b>Subject/Grade Level:</b> <b>Grade 2</b> <b>Mathematics</b>	<b>Goal 2:</b> The student will be able to use a variety of strategies to solve addition and subtraction equations working toward fluency and automaticity.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>2.14. Express needs, wants, and feelings appropriately in various situations. (9.1.4.D.2)</p> <p>2.15. Explain the importance of understanding and following rules in family, classroom, and community settings. (9.1.4.F.3)</p>		

Suggested days of Instruction	Curriculum Management System	<b>Topic: Place Value</b>	
	<u>Subject/Grade Level:</u>	<b>Goal 3:</b> The student will be able to identify the tens and ones places in two-digit numbers while demonstrating a conceptual understanding of a number in its expanded form. The student will be able to extend the working sequence of numbers to include those up to 1,000.	
	Grade 2 Mathematics		
	Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)	Essential Questions, Conceptual Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
	The student will be able to:		
	3.1. Count groups of 10 up to 10 tens and write how many. (2.NBT.1, 2.NBT.2)  3.2. Use groups of 10s and 1s to show a given number. (2.NBT.1, 2.NBT.2)  3.3. Read and write number words for given numbers up to 1000. (2.NBT.3)  3.4. Solve a problem by making an organized list. (2.NBT.5, 2.NBT.7)  3.5. Compare numbers using $<$ , $>$ , $=$ up to 1000. (2.NBT.4)  3.6. Use a number line to determine the closest 10. (2.NBT.7)  3.7. Identify and write number that are before, after or between. (2.NBT.4)	<b>Essential Questions:</b> In what ways can numbers be used to tell information? How does the position of a digit in a number help you understand the value?  <b>Conceptual Understandings:</b> Each place in a number has a specific value in relation to the base ten number system.  Numbers follow a pattern that repeats even when place value changes.  Place value can be represented in standard, expanded, number words and orally expressed.  Symbols ( $<$ , $>$ , $=$ ) can be used to compare the value of numbers through 1000.  Different strategies (mental, paper, drawing) can be used to add and subtract numbers fluently.  Even numbers are those that are characterized as making groups of two (partners) or making two equal groups (teams) and odd numbers do not.  A math sentence can be written to solve for unknown information in either addition or subtraction by utilizing the inverted operation.	<b>NOTE: The assessment models provided in this document are suggestions for the teacher. If the teacher chooses to develop his/her own model, it must be of equal or better quality and at the same or higher cognitive levels.</b>  <b>Depending upon the needs of the class, the assessment questions may be answered in the form of essays, quizzes, mobiles, PowerPoint, oral reports, booklets, or other formats of measurement used by the teacher.</b>  <b>Assessment Models:</b> Identify the value of a digit in a given number up to 1000.  Write the number in expanded form.  Use symbols ( $<$ , $>$ , $=$ ) to compare the value of numbers up to 1000.  Label numbers as odd/even.  Determine the closest ten to a set of various numbers.  Identify and explain the pattern based on a given set of numbers.  Write number before, after and between various given numbers.  Write numeral from reading number words.

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Place Value</b>	
	<b>Subject/Grade Level:</b> <b>Grade 2</b> <b>Mathematics</b>	<b>Goal 3:</b> The student will be able to identify the tens and ones places in two-digit numbers while demonstrating a conceptual understanding of a number in its expanded form. The student will be able to extend the working sequence of numbers to include those up to 1,000.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>3.8. Extend skip counting pattern on a 100's chart. (2.NBT.2)</p> <p>3.9. Recognize and extend addition/subtraction pattern when given a set of numbers up through 1000. (2.NBT.2)</p> <p>3.10. Identify numbers as odd or even. (2.OA.3)</p> <p>3.11. Read and write numerals up to 1000. (2.NBT.1)</p> <p>3.12. Recognize a problem and brainstorm ways to solve the problem individually or collaboratively. (9.1.4.A.1)</p> <p>3.13. Apply critical thinking and problem-solving skills in classroom and family settings. (9.1.4.A.5)</p>		<b>Additional Resources:</b>

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b> <u><b>Subject/Grade Level:</b></u> <b>Grade 2</b> <b>Mathematics</b>	<b>Topic: Place Value</b>	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>3.14. Participate in brainstorming sessions to seek information, ideas, and strategies that foster creative thinking. (9.1.4.B.1)</p> <p>3.15. Practice collaborative skills in groups, and explain how these skills assist in completing tasks in different settings (at home, in school, and during play). (9.1.4.C.1)</p> <p>3.16. Express needs, wants, and feelings appropriately in various situations. (9.1.4.D.2)</p>		

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Money</b>	
	<b>Subject/Grade Level:</b>	<b>Goal 4:</b> The student will be able to utilize money to make purchases and calculate the change from a purchase.	
	<b>Grade 2 Mathematics</b>		
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>4.1. Demonstrate knowledge of names and values of coins. (2.MD.8)</p> <p>4.2. Count mixed money amounts using dollars including \$5/\$10/\$20, half dollars, quarters, dimes, nickels, &amp; pennies. (2.MD.8)</p> <p>4.3. Determine the money necessary to pay for a target price. (2.MD.8)</p> <p>4.4. Compare amounts of money using <math>&lt;</math>, <math>&gt;</math>, <math>=</math>. (2.NBT.4)</p> <p>4.5. Show the same amount of money using different sets of coins. (2.MD.8)</p> <p>4.6. Use counting on to count and write change with different denominations of coins. (2.MD.8)</p>	<p><b>Essential Questions:</b> How does use of money help you in real life? In what ways can numbers be used to tell information?</p> <p><b>Conceptual Understandings:</b> Money knowledge can be used to solve word problems.  Symbols (<math>&lt;</math>, <math>&gt;</math>, <math>=</math>) can be used to compare the value of money.</p>	<p><b>NOTE: The assessment models provided in this document are suggestions for the teacher. If the teacher chooses to develop his/her own model, it must be of equal or better quality and at the same or higher cognitive levels.</b></p> <p><b>Depending upon the needs of the class, the assessment questions may be answered in the form of essays, quizzes, mobiles, PowerPoint, oral reports, booklets, or other formats of measurement used by the teacher.</b></p> <p><b>Assessment Models:</b> Count a given set of money.  Show money needed to purchase a target priced item.  Compare sums of money using <math>&lt;</math>, <math>&gt;</math> and <math>=</math>.  Given a money value, show the coins/bills to use in two or more ways.</p> <p><b>Additional Resources:</b></p>

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Money</b>	
	<b>Subject/Grade Level:</b> <b>Grade 2</b> <b>Mathematics</b>	<b>Goal 4:</b> The student will be able to utilize money to make purchases and calculate the change from a purchase.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>4.7. Apply critical thinking and problem-solving skills in classroom and family settings. (9.1.4.A.5)</p> <p>4.8. Practice collaborative skills in groups, and explain how these skills assist in completing tasks in different settings (at home, in school, and during play). (9.1.4.C.1)</p> <p>4.9. Explain the meaning of productivity and accountability, and describe situations in which productivity and accountability are important in the home, school, and community. (9.1.4.F.1)</p> <p>4.10. Establish and follow performance goals to guide progress in assigned areas of responsibility and accountability during classroom projects and extra-curricular activities. (9.1.4.F.2)</p>		

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Addition of Two-Digit Numbers With and Without Regrouping</b>	
	<b>Subject/Grade Level:</b> <b>Grade 2</b> <b>Mathematics</b>	<b>Goal 5:</b> The student will be able to demonstrate an understanding of place value for tens and ones by accurately adding with two-digit numbers.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>5.1. Use manipulatives to show regrouping of tens and ones. (2.NBT.7)</p> <p>5.2. Explain how regrouping is done and represent with manipulatives. (2.NBT.7)</p> <p>5.3. Compute addition problems of 2 digit numbers (with and without regrouping). (2.NBT.5)</p> <p>5.4. Add a 1 digit to a 2 digit and record in vertical format. (2.NBT.9)</p> <p>5.5. Calculate sums of money to \$.99. (2.MD.8)</p> <p>5.6. Add three two-digit addends. (2.NBT.6)</p> <p>5.7. Solve problems involving addition using data from a</p>	<p><b>Essential Questions:</b> How can I use what I know about number relationships to add and subtract? Why is recognizing what strategy to use for a specific purpose helpful?</p> <p><b>Conceptual Understandings:</b> Different strategies (mental, paper, drawing) can be used to add numbers fluently.  The same strategies used for two two-digit numbers can be applied when adding three or more than two-digit numbers.  Different strategies (mental, paper, drawing, concrete models) can be applied to add within 100.  Place value affects the other place values when adding (regrouping, trading, composing/decomposing)  When adding two-digit numbers knowing the value of that digit in a given position determines the next step one must take to solve an equation.  Multiples of 10 and 100 can be used as landmark numbers in computation.  Words or drawings can be used to explain addition strategies.</p>	<p><b>NOTE: The assessment models provided in this document are suggestions for the teacher. If the teacher chooses to develop his/her own model, it must be of equal or better quality and at the same or higher cognitive levels.</b> <b>Depending upon the needs of the class, the assessment questions may be answered in the form of essays, quizzes, mobiles, PowerPoint, oral reports, booklets, or other formats of measurement used by the teacher.</b></p> <p><b>Assessment Models:</b> Illustrate/explain adding two-digit numbers with/without regrouping.  Accurately compute two and three two-digit numbers with/without regrouping for addition.  Accurately compute money sums up to \$.99 using two two-digit numbers.  Give a table with various two-digit numbers and solve addition with/without regrouping.  Choose from a list of strategies/tools one could use to solve a given two-digit math addition equation to determine which is the best way to attain the correct answer.  Give an equation using 2 two-digit numbers. Solve the problem giving an estimate and exact sum.</p>

Suggested days of Instruction	Curriculum Management System	<b>Topic: Addition of Two-Digit Numbers With and Without Regrouping</b>												
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<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Addition of Two-Digit Numbers With and Without Regrouping</b>	
	<b>Subject/Grade Level:</b> <b>Grade 2</b> <b>Mathematics</b>	<b>Goal 5:</b> The student will be able to demonstrate an understanding of place value for tens and ones by accurately adding with two-digit numbers.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>(9.1.4.B.1)</p> <p>5.13. Practice collaborative skills in groups, and explain how these skills assist in completing tasks in different settings (at home, in school, and during play). (9.1.4.C.1)</p> <p>5.14. Establish and follow performance goals to guide progress in assigned areas of responsibility and accountability during classroom projects and extra-curricular activities. (9.1.4.F.2)</p> <p>5.15. Explain the importance of understanding and following rules in family, classroom, and community settings. (9.1.4.F.3)</p>		

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Addition of Three-Digit Numbers With and Without Regrouping</b>	
	<b>Subject/Grade Level:</b> <b>Grade 2</b> <b>Mathematics</b>	<b>Goal 6:</b> The student will be able to demonstrate an understanding of place value for hundreds, tens and ones by accurately adding with three-digit numbers.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>6.1. Add three-digit numbers mentally when there is no regrouping. (2.NBT.8)</p> <p>6.2. Use manipulatives to show regrouping of hundreds, tens and ones. (2.NBT.7)</p> <p>6.3. Compute addition problems involving three-digit numbers (with and without regrouping). (2.NBT.5)</p> <p>6.4. Add two three-digit numbers and record in vertical format. (2.NBT.9)</p> <p>6.5. Solve problems involving addition using data from a table. (2.MD.10)</p> <p>6.6. Find missing addends in an equation containing three-digit numbers. (2.NBT.8, 2.OA.1)</p>	<p><b>Essential Questions:</b> How can I use what I know about number relationships to add and subtract? Why is recognizing what strategy to use for a specific purpose helpful?</p> <p><b>Conceptual Understandings:</b> A math sentence can be written to solve for unknown information in either addition by utilizing the inverted operation. Numbers follow a pattern that repeats even when place value changes. Symbols (&lt;, &gt;, =) can be used to compare the value of numbers. Different strategies (mental, paper, drawing) can be used to add numbers fluently. Different strategies (mental, paper, drawing, concrete models) can be applied to add within 1000. Place value affects the other place values when adding (regrouping, trading, composing/decomposing). When adding two- or three-digit numbers, knowing the value of that digit in a given position determines the next</p>	<p><b>NOTE: The assessment models provided in this document are suggestions for the teacher. If the teacher chooses to develop his/her own model, it must be of equal or better quality and at the same or higher cognitive levels.</b></p> <p><b>Depending upon the needs of the class, the assessment questions may be answered in the form of essays, quizzes, mobiles, PowerPoint, oral reports, booklets, or other formats of measurement used by the teacher.</b></p> <p><b>Assessment Models:</b> Illustrate/explain adding three-digit numbers with and without regrouping. Accurately compute two and three three-digit numbers with and without regrouping for addition. Give a table with various three-digit numbers and solve addition with and without regrouping. Choose from a list of strategies/tools one could use to solve a given three-digit math addition equation to determine which is the best way to attain the correct answer. Give an equation using 2 three-digit numbers. Solve the problem giving an estimate and exact sum. Accurately extend three-digit number patterns from any given number up to 1,000.</p>

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Addition of Three-Digit Numbers With and Without Regrouping</b>	
	<b>Subject/Grade Level:</b> <b>Grade 2</b> <b>Mathematics</b>	<b>Goal 6:</b> The student will be able to demonstrate an understanding of place value for hundreds, tens and ones by accurately adding with three-digit numbers.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>6.7. Apply knowledge of number patterns to extend existing patterns with numbers within 1000. (2.NBT.2)</p> <p>6.8. Apply critical thinking and problem-solving skills in classroom and family settings. (9.1.4.A.5)</p> <p>6.9. Participate in brainstorming sessions to seek information, ideas, and strategies that foster creative thinking. (9.1.4.B.1)</p> <p>6.10. Practice collaborative skills in groups, and explain how these skills assist in completing tasks in different settings (at home, in school, and during play). (9.1.4.C.1)</p> <p>6.11. Establish and follow performance goals to guide progress in assigned areas</p>	<p>step one must take to solve an equation.</p> <p>Multiples of 10 and 100 can be used as landmark numbers in computation.</p> <p>Words or drawings can be used to explain addition strategies.</p> <p>Picture graphs, bar graphs, charts and tables can be used to solve comparative and addition problems.</p>	<b>Additional Resources:</b>

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b> <u><b>Subject/Grade Level:</b></u> <b>Grade 2</b> <b>Mathematics</b>	<b>Topic: Addition of Three-Digit Numbers With and Without Regrouping</b>	
		<b>Goal 6:</b> The student will be able to demonstrate an understanding of place value for hundreds, tens and ones by accurately adding with three-digit numbers.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>of responsibility and accountability during classroom projects and extra-curricular activities. (9.1.4.F.2)</p> <p>6.12. Explain the importance of understanding and following rules in family, classroom, and community settings. (9.1.4.F.3)</p>		

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Subtraction of Two-Digit Numbers With and Without Regrouping</b>	
	<b>Subject/Grade Level:</b> <b>Grade 2</b> <b>Mathematics</b>	<b>Goal 7:</b> The student will be able to demonstrate an understanding of place value for tens and ones by accurately subtracting with two-digit numbers.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>7.1. Use manipulatives to show regrouping of tens and ones. (2.NBT.7)</p> <p>7.2. Explain how regrouping is done and represent with manipulatives. (2.NBT.7)</p> <p>7.3. Compute subtraction problems of two-digit numbers (with and without regrouping). (2.NBT.5)</p> <p>7.4. Subtract a one-digit number from a two-digit number and record in vertical format. (2.NBT.9)</p> <p>7.5. Subtract amounts of money less than a dollar with and without regrouping. (2.MD.8)</p> <p>7.6. Solve problems involving subtraction using data from a table.</p>	<p><b>Essential Questions:</b> How can I use what I know about number relationships to add and subtract? Why is recognizing what strategy to use for a specific purpose helpful?</p> <p><b>Conceptual Understandings:</b> Different strategies (mental, paper, drawing) can be used to subtract numbers fluently.  Different strategies (mental, paper, drawing, concrete models) can be applied to subtract within 100.  Place value affects the other place values when subtracting (regrouping, trading, composing/decomposing).  When subtracting two- or three-digit numbers, knowing the value of that digit in a given position determines the next step one must take to solve an equation.  Multiples of 10 and 100 can be used as landmark numbers in computation.  Words or drawings can be used to explain subtraction strategies.  Money knowledge can be used to solve word problems.  Picture graphs, bar graphs, charts and tables can be used</p>	<p><b>NOTE: The assessment models provided in this document are suggestions for the teacher. If the teacher chooses to develop his/her own model, it must be of equal or better quality and at the same or higher cognitive levels.</b></p> <p><b>Depending upon the needs of the class, the assessment questions may be answered in the form of essays, quizzes, mobiles, PowerPoint, oral reports, booklets, or other formats of measurement used by the teacher.</b></p> <p><b>Assessment Models:</b> Illustrate/explain subtracting two-digit numbers with and without regrouping.  Accurately compute two two-digit numbers with and without regrouping for subtraction.  Accurately subtract money amounts less than \$1.00 with and without regrouping.  Give a table with various two-digit numbers and solve subtraction with and without regrouping.  Choose from a list of strategies/tools one could use to solve a given two-digit math subtraction equation to determine which is the best way to obtain the correct answer.  Give an equation using two two-digit numbers. Solve the problem giving an estimate and exact difference.</p>

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Subtraction of Two-Digit Numbers With and Without Regrouping</b>	
	<b>Subject/Grade Level:</b> <b>Grade 2</b> <b>Mathematics</b>	<b>Goal 7:</b> The student will be able to demonstrate an understanding of place value for tens and ones by accurately subtracting with two-digit numbers.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>(2.MD.10)</p> <p>7.7. Solve a problem by using estimation to determine reasonableness of difference. (2.NBT.8)</p> <p>7.8. Use clue words to prompt solving word problems for double digit subtraction. (2.OA.1, 9.1.4.A.1)</p> <p>7.9. Use addition to check subtraction. (2.NBT.9)</p> <p>7.10. Estimate differences by rounding to the nearest ten. (2.NBT.8)</p> <p>7.11. Identify and solve problems with too much information. (2OA.1, 9.1.4.A.1)</p> <p>7.12. Apply critical thinking and problem-solving skills in classroom and family settings. (9.1.4.A.5)</p>	<p>to solve comparative and subtraction problems.</p> <p>There is a relationship between addition and subtraction (fact families).</p>	<p>Identify clue word (highlight, circle or underline) that indicates subtraction for a word problem and write the equation with correct answer.</p> <p><b>Additional Resources:</b></p>

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Subtraction of Two-Digit Numbers With and Without Regrouping</b>	
	<b>Subject/Grade Level:</b> <b>Grade 2</b> <b>Mathematics</b>	<b>Goal 7:</b> The student will be able to demonstrate an understanding of place value for tens and ones by accurately subtracting with two-digit numbers.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>7.13. Participate in brainstorming sessions to seek information, ideas, and strategies that foster creative thinking. (9.1.4.B.1)</p> <p>7.14. Practice collaborative skills in groups, and explain how these skills assist in completing tasks in different settings (at home, in school, and during play). (9.1.4.C.1)</p> <p>7.15. Establish and follow performance goals to guide progress in assigned areas of responsibility and accountability during classroom projects and extra-curricular activities. (9.1.4.F.2)</p> <p>7.16. Explain the importance of understanding and following rules in family, classroom, and community settings. (9.1.4.F.3)</p>		

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Subtraction of Three-Digit Numbers With and Without Regrouping</b>	
	<b>Subject/Grade Level:</b> <b>Grade 2</b> <b>Mathematics</b>	<b>Goal 8:</b> The student will be able to demonstrate an understanding of place value for hundreds, tens and ones by accurately subtracting with three-digit numbers.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>8.1. Add three-digit numbers within 1,000 mentally when there is no regrouping. (2.NBT.8)</p> <p>8.2. Use manipulatives to show regrouping of hundreds, tens and ones. (2.NBT.7)</p> <p>8.3. Compute addition problems with three-digit numbers (with and without regrouping) within 1,000. (2.NBT.5)</p> <p>8.4. Add two three-digit numbers and record in vertical format. (2.NBT.9)</p> <p>8.5. Solve problems involving addition using data from a table. (2.MD.10)</p> <p>8.6. Find missing addends in an equation involving three-digit numbers. (2.NBT.8, 2.OA.1)</p>	<p><b>Essential Questions:</b> How can I use what I know about number relationships to add and subtract? Why is recognizing what strategy to use for a specific purpose helpful?</p> <p><b>Conceptual Understandings:</b> A math sentence can be written to solve for unknown information in subtraction by utilizing the inverted operation.</p> <p>Numbers follow a pattern that repeats even when place value changes.</p> <p>Different strategies (mental, paper, drawing, concrete models) can be applied to subtract within 1000.</p> <p>Place value affects the other place values when either subtracting (regrouping, trading, composing/decomposing).</p> <p>When subtracting two or three digit numbers, knowing the value of that digit in a given position determines the next step one must take to solve an equation.</p> <p>Multiples of 10 and 100 can be used as landmark numbers in computation.</p> <p>Words or drawings can be used to explain subtraction strategies.</p>	<p><b>NOTE: The assessment models provided in this document are suggestions for the teacher. If the teacher chooses to develop his/her own model, it must be of equal or better quality and at the same or higher cognitive levels.</b></p> <p><b>Depending upon the needs of the class, the assessment questions may be answered in the form of essays, quizzes, mobiles, PowerPoint, oral reports, booklets, or other formats of measurement used by the teacher.</b></p> <p><b>Assessment Models:</b> Illustrate/explain subtracting three-digit numbers with and without regrouping within 1,000.</p> <p>Accurately compute three-digit numbers with and without regrouping for subtraction.</p> <p>Give a table with various three-digit numbers and solve subtraction with and without regrouping.</p> <p>Give an equation using two three-digit numbers. Solve the problem giving an estimate and exact difference.</p> <p><b>Additional Resources:</b></p>

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b> <b>Subject/Grade Level:</b> <b>Grade 2</b> <b>Mathematics</b>	<b>Topic: Subtraction of Three-Digit Numbers With and Without Regrouping</b>	
		<b>Goal 8:</b> The student will be able to demonstrate an understanding of place value for hundreds, tens and ones by accurately subtracting with three-digit numbers.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	8.7. Apply knowledge of number patterns to extend existing patterns with numbers within 1,000. (2.NBT.2)  8.8. Use addition to check subtraction. (2.NBT.9)  8.9. Estimate differences by rounding to the nearest 10 or 100. (2.NBT.8)  8.10. Apply critical thinking and problem-solving skills in classroom and family settings. (9.1.4.A.5)  8.11. Participate in brainstorming sessions to seek information, ideas, and strategies that foster creative thinking. (9.1.4.B.1)  8.12. Practice collaborative skills in groups, and explain how these skills assist in	Picture graphs, bar graphs, charts and tables can be used to solve comparative, probability, and addition/subtraction problems.	

Suggested days of Instruction	Curriculum Management System	<b>Topic: Subtraction of Three-Digit Numbers With and Without Regrouping</b>	
	<u>Subject/Grade Level:</u> <b>Grade 2</b> <b>Mathematics</b>	<u>Goal 8:</u> The student will be able to demonstrate an understanding of place value for hundreds, tens and ones by accurately subtracting with three-digit numbers.	
	Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>completing tasks in different settings (at home, in school, and during play). (9.1.4.C.1)</p> <p>8.13. Establish and follow performance goals to guide progress in assigned areas of responsibility and accountability during classroom projects and extra-curricular activities. (9.1.4.F.2)</p> <p>8.14. Explain the importance of understanding and following rules in family, classroom, and community settings. (9.1.4.F.3)</p>		

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b> <b>Subject/Grade Level:</b> <b>Grade 2</b> <b>Mathematics</b>	<b>Topic: Geometry and Fractions</b>	
		<b>Goal 9:</b> The student will be able to analyze, describe, classify, create and compose shapes utilizing information about a shape's attributes (faces, angles, vertices and edges). The student will be able to explore the concept of fractions (halves, thirds and fourths) in relation to circles and rectangles.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	9.1. Identify plane and solid shapes by geometric attributes such as face, angle, vertex and edge. (2.G.1)  9.2. Draw shapes having specified attributes such as a given number of angles or a given number of faces. (2.G.1)  9.3. Identify and construct congruent figures. (2.G.1)  9.4. Demonstrate and describe the decomposing (two triangles = square) and combining (two squares = rectangle) shapes to make new shapes. (2.G.1)  9.5. Identify and draw lines of symmetry. (4.G.3)  9.6. Partition a rectangle, using	<b>Essential Questions:</b> How are shapes a part of our world? In what ways can numbers be used to tell information?  <b>Conceptual Understandings:</b> Shapes are determined by the number of angles and/or given number of equal faces.  A rectangle can be partitioned into same size squares and counted to find the total number.  Shapes can be broken into smaller equal parts (halves, thirds, half of, a third of) and together those parts make a whole.	<b>NOTE: The assessment models provided in this document are suggestions for the teacher. If the teacher chooses to develop his/her own model, it must be of equal or better quality and at the same or higher cognitive levels.</b>  <b>Depending upon the needs of the class, the assessment questions may be answered in the form of essays, quizzes, mobiles, PowerPoint, oral reports, booklets, or other formats of measurement used by the teacher.</b>  <b>Assessment Models:</b> Identify and draw plane and solid shapes.  Accurately identify geometric attributes (face, angle, vertex, and edge) of a given solid shape.  Given two figures, differentiate congruent and non-congruent figures.  Using pattern blocks, compose and decompose shapes.  Given a shape, draw a line of symmetry. Using graph paper, give the area and perimeter of a given shape.  Identify halves, thirds, and fourths of a circle or rectangle.

Suggested days of Instruction	Curriculum Management System	Topic: Geometry and Fractions	
	Subject/Grade Level: <b>Grade 2</b> <b>Mathematics</b>	<u>Goal 9:</u> The student will be able to analyze, describe, classify, create and compose shapes utilizing information about a shape's attributes (faces, angles, vertices and edges). The student will be able to explore the concept of fractions (halves, thirds and fourths) in relation to circles and rectangles.	
	Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) <b>The student will be able to:</b>	Essential Questions, Conceptual Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
	graph paper, into rows and columns of same size squares and count to find the total number to determine the area and perimeter. (2.G.2)  9.7. Partition circles and rectangles into two, three or four equal shares and name the fraction as halves, thirds or fourths. (2.G.3)  9.8. Apply critical thinking and problem-solving skills in classroom and family settings. (9.1.4.A.5)  9.9. Practice collaborative skills in groups, and explain how these skills assist in completing tasks in different settings (at home, in school, and during play). (9.1.4.C.1)  9.10. Express needs, wants, and feelings appropriately in		<b>Additional Resources:</b>

Suggested days of Instruction	Curriculum Management System	<b>Topic: Geometry and Fractions</b>	
	<u>Subject/Grade Level:</u> <b>Grade 2</b> <b>Mathematics</b>	<u>Goal 9:</u> The student will be able to analyze, describe, classify, create and compose shapes utilizing information about a shape's attributes (faces, angles, vertices and edges). The student will be able to explore the concept of fractions (halves, thirds and fourths) in relation to circles and rectangles.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	various situations. (9.1.4.D.2)  9.11. Explain the meaning of productivity and accountability, and describe situations in which productivity and accountability are important in the home, school, and community. (9.1.4.F.1)  9.12. Establish and follow performance goals to guide progress in assigned areas of responsibility and accountability during classroom projects and extra-curricular activities. (9.1.4.F.2)  9.13. Explain the importance of understanding and following rules in family, classroom, and community settings. (9.1.4.F.3)		

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Measurement, Time and Data</b>	
	<b>Subject/Grade Level:</b> <b>Grade 2</b> <b>Mathematics</b>	<b>Goal 10:</b> The student will be able to utilize various forms of measurement to describe an object's/ situation's attributes and/or condition.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	<p>10.1. Measure lengths with inches, feet, yards and centimeters. (2.MD.1)</p> <p>10.2. Estimate length measurements in inches, feet, centimeters and meters. (2.MD.3)</p> <p>10.3. Measure same object/space using standard and metric units. (2.MD.2)</p> <p>10.4. Choose appropriate measuring tool to measure a given space. (2.MD.1)</p> <p>10.5. Compare the measurement of two different objects using the same standard of measurement. (2.MD.4)</p> <p>10.6. Determine a length of an object from any given point on a number line diagram.</p>	<p><b>Essential Questions:</b> In what ways can numbers be used to tell information? How is measurement used in your world?</p> <p><b>Conceptual Understandings:</b> Continuous length is countable by using standard tools of measurement such as rulers, yardsticks, meter sticks and measuring tapes.</p> <p>The same object can be measured using standard and metric units.</p> <p>Looking at the object/space and considering the unit of measurement assists in making accurate estimations.</p> <p>Measuring in the same unit helps you compare the size of two or more objects.</p> <p>Common units of measurement can be added or subtracted when solving word problems.</p> <p>A given length is the same length no matter where it is placed on a measurement tool (8 inches of yarn will cover 8 units no matter where on a ruler/yard stick it is placed).</p> <p>Addition and/or subtraction can be used to determine the length of an object when it is placed on a non-zero starting point (8 inches of yarn is placed on a 2 and reaches 10: 10-</p>	<p><b>NOTE: The assessment models provided in this document are suggestions for the teacher. If the teacher chooses to develop his/her own model, it must be of equal or better quality and at the same or higher cognitive levels.</b></p> <p><b>Depending upon the needs of the class, the assessment questions may be answered in the form of essays, quizzes, mobiles, PowerPoint, oral reports, booklets, or other formats of measurement used by the teacher.</b></p> <p><b>Assessment Models:</b> Given an object student will be able to measure in inches, feet, yards, and centimeters and compare measurement to another object.</p> <p>Determine the length of an object using a section of a number line with a non-zero starting point.</p> <p>Identify clue word (highlight, circle or underline) to solve word problems using standard units of measurement within 100.</p> <p>Accurately tell time to the five minutes, draw hands accurately for given time, and distinguish between AM and PM.</p> <p>Given a calendar, identify any given date and be able to find a date previous or subsequent to that date.</p> <p>Be able to describe the relationship between hours</p>

Suggested days of Instruction	Curriculum Management System	<b>Topic: Measurement, Time and Data</b>	
	<u>Subject/Grade Level:</u> <b>Grade 2</b> <b>Mathematics</b>	<b>Goal 10:</b> The student will be able to utilize various forms of measurement to describe an object's/ situation's attributes and/or condition.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	(2.MD.6)	2=8).	in a day, days in a week, and months in a year.
	10.7. Solve word problems that use standard units of measurement within 100. (2.MD.5)	Time can be measured using an analog or digital clock.  Lengths (or related measured data such as temperature) can be compared by placing the information on a line plot graph.	Given data, create a bar graph or pictograph and be able to interpret data using the information from the graph.  Given a circle graph or line plot, interpret the data.
	10.8. Tell time to the five minutes. (2.MD.7)	Graphs represent a set of data.	<b>Additional Resources:</b>
	10.9. Distinguish between AM & PM. (2.MD.7)	Picture and bar graphs can be used to solve comparative, addition and subtraction problems.	
	10.10. Determine number of days in month & year.		
	10.11. Determine number of weeks in month and year.		
	10.12. Name the next/previous month when given any month.		
	10.13. Find today's date on a calendar.		
	10.14. Count on weeks within a given month and determine that date.		

Suggested days of Instruction	Curriculum Management System	Topic: Measurement, Time and Data	
	<u>Subject/Grade Level:</u> <b>Grade 2</b> <b>Mathematics</b>	<u>Goal 10:</u> The student will be able to utilize various forms of measurement to describe an object's/ situation's attributes and/or condition.	
	Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's) <b>The student will be able to:</b>	Essential Questions, Conceptual Understandings	Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model
	<p>10.15. Place and compare information on a line plot graph. (2.MD.9)</p> <p>10.16. Interpret data on a circle graph. (2.MD.10)</p> <p>10.17. Draw a picture and/or bar graph to represent a data set with up to four categories. (2.MD.10)</p> <p>10.18. Solve simple addition and subtraction problems using information from a bar graph. (2.MD.10)</p> <p>10.19. Collect, generate and record data generated from chance devices such as spinners and dice. (2.MD.9)</p> <p>10.20. Recognize a problem and brainstorm ways to solve the problem individually or</p>		

<b>Suggested days of Instruction</b>	<b>Curriculum Management System</b>	<b>Topic: Measurement, Time and Data</b>	
	<b>Subject/Grade Level:</b> <b>Grade 2</b> <b>Mathematics</b>	<b>Goal 10:</b> The student will be able to utilize various forms of measurement to describe an object's/ situation's attributes and/or condition.	
	<b>Objectives / Cluster Concepts / Cumulative Progress Indicators (CPI's)</b> <b>The student will be able to:</b>	<b>Essential Questions, Conceptual Understandings</b>	<b>Instructional Tools / Materials / Technology / Resources / Learning Activities / Interdisciplinary Activities / Assessment Model</b>
	collaboratively. (9.1.4.A.1)  10.21. Evaluate available resources that can assist in solving problems. (9.1.4.A.2)  10.22. Apply critical thinking and problem-solving skills in classroom and family settings. (9.1.4.A.5)  10.23. Establish and follow performance goals to guide progress in assigned areas of responsibility and accountability during classroom projects and extra-curricular activities. (9.1.4.F.2)  10.24. Explain the importance of understanding and following rules in family, classroom, and community settings. (9.1.4.F.3)		