

| Section | Outcomes | Modifications | Resources |
|---------------------------------|---|-------------------------------|---|
| 1.1 Understand Addition | N.MR.02.09 Given a contextual situation that involves addition and subtraction using numbers through 99: model using objects or pictures, explain in words, record using numbers and symbols; solve. | Leveled work connecting cubes | For whole unit: |
| 1.2 Count on | N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99. Find missing values in open sentences, e.g., $42 + \quad = 57$; use relationship between addition and subtraction. Find missing values in open sentences, e.g., $42 + \quad = 57$; use relationship between addition and subtraction. N.MR.02.08 | | Variety of picture books Individual white boards for whole unit Graphic organizer to help with vocabulary 200 Chart Computer math games |
| 1.3 Doubles and Near Doubles | N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99. | | |
| 1.4 Hands On: Make a Ten | N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99. | | |
| 1.5 Algebra: Practice the Facts | N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99. | | |

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| 1.6 Algebra: Follow the Rule | NCTM Number and Operations: Develop fluency with basic number combinations for addition and subtraction | | |
| 1.7 Algebra: Add 3 Numbers | NCTM Number and Operations: Develop and use strategies for whole-number computations, with a focus on addition and subtraction. | | |
| 1.8 Problem Solving Workshop Strategy: Draw a Picture | N.MR.02.08 Find missing values in open sentences, e.g., $42 + \quad = 57$; use relationship between addition and subtraction. N.MR.02.09 Given a contextual situation that involves addition and subtraction using numbers through 99: model using objects or pictures, explain in words, record using numbers and symbols; solve. | | Underline important words in problem |
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Subject: Math

Grade: 2nd

Chapter/Outcome: Subtraction Facts and Strategies (2) Date Revised: February 2010

| Section | Outcomes | Modifications | Resources |
|----------------------------|---|---------------|--|
| 2.1 Understand Subtraction | N.MR.02.09 Given a contextual situation that involves addition and subtraction using numbers through 99: model using objects or pictures, explain in words, record using numbers and symbols; solve. | | For whole unit: Graphic organizer for vocabulary Flash cards |
| 2.2 Count Back | N.MR.02.07 Find the distance between numbers on the number line, e.g., how far is 79 from 26? N.MR.02.08 Find missing values in open sentences, e.g., $42 + \quad = 57$; use relationship between addition and subtraction. | | Review fact families with 2 nd grade students as the digits Connecting cubes |

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| <p>2.3 Algebra Fact Families</p> <p>2.4 Algebra: Think Addition to Subtract</p> <p>2.5 Algebra: Missing Addends</p> <p>2.6 Problem Solving Workshop Skill: Choose the Operation</p> | <p>N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99.</p> <p>NCTM: Number and Operations: Understand various meanings of addition and subtraction of whole numbers and the relationship between the two operations.</p> <p>N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99.</p> <p>N.MR.02.08 Find missing values in open sentences, e.g., $42 + \quad = 57$; use relationship between addition and subtraction.</p> <p>N.MR.02.08 Find missing values in open sentences, e.g., $42 + \quad = 57$; use relationship between addition and subtraction.</p> <p>N.MR.02.09 Given a contextual situation that involves addition and subtraction using numbers through 99: model using objects or pictures, explain in words, record using numbers and symbols; solve.</p> | | <p>Addition Bingo game</p> |
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| Section | Outcomes | Modifications | Resources |
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| 3.1 Tens | N.ME.02.01 Count to 1000 by 1's, 10's and 100's starting from any number in the sequence. | | For whole unit: |
| 3.2 Hands On: Tens and Ones | N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99. N.ME.02.02 Read and write numbers to 1000 in numerals and words, and relate them to the quantities they represent. N.ME.02.05 Express numbers through 999 using place value, e.g., 137 is 1 hundred, 3 tens, and 7 ones; use concrete materials. | | Front board Connecting cubes Computer math games |
| 3.3 Understand Place Value | N.ME.02.05 Express numbers through 999 using place value, e.g., 137 is 1 hundred, 3 tens, and 7 ones; use concrete materials. N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99. | | |
| 3.4 Expanded Form | NCTM Number and Operations: Develop a sense of whole numbers and represent and use them in flexible ways including relating, composing, and decomposing numbers. | | |
| 3.5 Read and Write Numbers to 100 | N.ME.02.02 Read and write numbers to 1000 in numerals and words, and relate them to the quantities they represent. | | |
| 3.6 Hands On: | NCTM Number and Operations: Develop a sense of | | |

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| Different Ways to Show Numbers | whole numbers and represent and use them in flexible ways including relating, composing, and decomposing numbers. | | |
| 3.7 Problem Solving Workshop Skill: Make Reasonable Estimates | NCTM Number and Operations: Develop understanding of the relative position and magnitude of whole numbers and of ordinal and cardinal numbers and their connections. | | |

Subject: Math

Grade: 2nd

Chapter/Outcome: Number Concepts and Patterns (4) Date Revised: February 2010

| Section | Outcomes | Modifications | Resources |
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| 4.1 Ordinal Numbers | NCTM Number and Operations: Develop understanding of the relative position and magnitude of whole numbers and of ordinal and cardinal numbers and their connections. | | For whole unit: Graphic organizer for vocabulary Computer math games 200 chart |
| 4.2 Algebra: Compare Numbers: >, <, or = | N.ME.02.03 Compare and order numbers to 1000; use the symbols > and <. | | |
| 4.3 Algebra: Order Numbers | N.ME.02.03 Compare and order numbers to 1000; use the symbols > and <. | | |
| 4.4 Round to the Nearest 10 | NCTM Number and Operations: Use multiple models to develop initial understanding of place value and the base-ten number system. | | |
| 4.5 Hands On: Even and Odd Numbers | NCTM Number and Operations: Develop a sense of whole numbers and represent and use them in flexible ways including relating, composing, and decomposing numbers. | | |
| 4.6 Algebra: Patterns on a | N.ME.02.01 Count to 1000 by 1's, 10's and 100's | | |

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| Hundred Chart | starting from any number in the sequence. N.ME.02.04 Count orally by 3's and 4's starting with 0, and by 2's, 5's and 10's starting from any whole number. | | |
| 4.7 Problem Solving Workshop Strategy: Find a Pattern | N.ME.02.04 Count orally by 3's and 4's starting with 0, and by 2's, 5's and 10's starting from any whole number. | | |
| 4.8 Algebra: Number Patterns | N.ME.02.01 Count to 1000 by 1's, 10's and 100's starting from any number in the sequence. N.ME.02.04 Count orally by 3's and 4's starting with 0, and by 2's, 5's and 10's starting from any whole number. | | |

Subject: Math

Grade: 2nd

Chapter/Outcome: Explore 2-Digit Addition (5) Date Revised: February 2010

| Section | Outcomes | Modifications | Resources |
|--|---|---------------|--|
| 5.1 Mental Math: Add on Multiples of 10 | N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99. | | For whole unit: Flash cards Calculator |
| 5.2 Hands On: Regrouping for Addition | N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99. M.PS.02.08 Add and subtract money in mixed units, e.g., \$2.50 + 60 cents and \$5.75 - \$3, but not \$2.50 + \$3.10. | | Computer math games |
| 5.3 Hands On: Model 2-Digit | N.FL.02.10 Add fluently two numbers through 99, | | Subtraction Bingo game |

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| Addition | using strategies including formal algorithms; subtract fluently two numbers through 99. | | |
| 5.4 Problem Solving Workshop Strategy: Make a Model | N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99. | | |
| 5.5 Hands On: Model and Record 2-Digit Addition | N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99. | | |
| 5.6 Hands On: 2-Digit Addition | N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99. | | Underline important parts in problem |

Subject: Math

Grade: 2nd

Chapter/Outcome: 2-Digit Addition (6)

Date Revised: February 2010

| Section | Outcomes | Modifications | Resources |
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| 6.1 Add 2-Digit Numbers | N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99. | | |
| 6.2 Practice 2 Digit Addition | N.FL.02.10 Add fluently two numbers through 99, | | |

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| 6.3 Rewrite 2-Digit Addition | <p>using strategies including formal algorithms; subtract fluently two numbers through 99.</p> <p>N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99.</p> | | |
| 6.4 Estimate Sums | <p>N.FL.02.11 Estimate the sum of two numbers with three digits.</p> | | |
| 6.5 More 2-Digit Addition | <p>N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99.</p> | | |
| 6.6 Problem Solving Workshop Skill: Use a Table | <p>N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99.</p> | | |
| 6.7 Algebra: Break Apart Numbers to Add | <p>N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99.</p> | | |

Subject: Math

Grade: 2nd

Chapter/Outcome: Explore 2-Digit Subtraction (7) Date Revised: February 2010

| Section | Outcomes | Modifications | Resources |
|---|--|---------------|---|
| 7.1 Mental Math: Subtract Multiples of 10 | <p>N.ME.02.01 Count to 1000 by 1's, 10's and 100's starting from any number in the sequence.</p> <p>N.ME.02.04 Count orally by 3's and 4's starting with 0, and by 2's, 5's and 10's starting from any whole number.</p> | | <p>For whole unit: 200 Chart</p> |

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| <p>7.2 Hands On: Regrouping for Subtraction</p> | <p>N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99.</p> <p>N.MR.02.09 Given a contextual situation that involves addition and subtraction using numbers through 99: model using objects or pictures, explain in words, record using numbers and symbols; solve.</p> <p>N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99</p> | | |
| <p>7.3 Hands On: Model 2-Digit Subtraction</p> | <p>N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99.</p> | | |
| <p>7.4 Problem Solving Workshop Strategy: Make a Model</p> | <p>N.MR.02.09 Given a contextual situation that involves addition and subtraction using numbers through 99: model using objects or pictures, explain in words, record using numbers and symbols; solve.</p> | | |
| <p>7.5 Hands On: Model and Record 2-Digit Subtraction</p> | <p>N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99.</p> | | |
| <p>7.6 Hands On: Subtract 2-Digit Numbers</p> | <p>N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99.</p> | | |

| Section | Outcomes | Modifications | Resources |
|---------------------------------------|---|---------------|--|
| 8.1 Hands On: 2-Digit Subtraction | N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99. | | For whole unit: Calculator Computer math games |
| 8.2 Practice 2-Digit Subtraction | N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99. | | |
| 8.3 Rewrite 2-Digit Subtraction | N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99. | | |
| 8.4 More 2-Digit Subtraction | N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99. | | |
| 8.5 Use Addition to Check Subtraction | N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99. | | |
| 8.6 Estimate Differences | NCTM Number and Operations: Use a variety of methods and tools to compute, including objects, mental computation, estimation, paper and pencil, and | | |

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| 8.7 Problem Solving Workshop Skill: Choose a Method | calculators. N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99. | | |
| 8.8 Mental Math: Find Differences | N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99. | | |
| 8.9 Mixed Practice | N.FL.02.10 Add fluently two numbers through 99, using strategies including formal algorithms; subtract fluently two numbers through 99. | | |

Subject: Math

Grade: 2nd

Chapter/Outcome: Data and Graphs (9) Date Revised: February 2010

| Section | Outcomes | Modifications | Resources |
|--|---|---------------|-----------|
| 9.1 Take a Survey | NCTM Data Analysis and Probability: Pose questions and gather data about themselves and their surroundings. | | |
| 9.2 Problem Solving Skill: Use a Table | NCTM Data Analysis and Probability: Describe parts of the data and the set of data as a whole to determine what the data shows. | | |
| 9.3 Read a Bar Graph | NCTM Data Analysis and Probability: Describe parts of the data and the set of data as a whole to determine what the data shows. | | |
| 9.4 Make a Bar Graph | NCTM Data Analysis and Probability: Represent data using concrete objects, pictures, and graphs. | | |
| 9.5 Pictographs | D.RE.02.01 Make pictographs using a scale representation, using scales where symbols | | |

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| <p>9.6 Line Plots</p> <p>9.7 Locate Points on a Grid</p> | <p>equal more than one. D.RE.02.02 Read and interpret pictographs D.RE.02.03 Solve problems using information in pictographs; include scales such as each represents 2 apples; avoid cases.</p> <p>NCTM Data Analysis and Probability: Describe parts of the data and the set of data as a whole to determine what the data shows.</p> <p>G.LO.02.07 Find and name locations using simple coordinate systems such as maps and first quadrant grids.</p> | | |
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Subject: Math

Grade: 2nd

Chapter/Outcome: Probability (10)

Date Revised: February 2010

| Section | Outcomes | Modifications | Resources |
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| 10.1 Certain or Impossible | NCTM Data Analysis and Probability: Discuss events related to students' experiences as likely or unlikely. | | |
| 10.2 More Likely or Less Likely | NCTM Data Analysis and Probability: Discuss events related to students' experiences as likely or unlikely. | | |
| 10.3 Hands On: Outcomes | NCTM Data Analysis and Probability: Understand and apply basic concepts of probability. | | |
| 10.4 Hands On: Equally Likely | NCTM Data Analysis and Probability: Discuss events related to students' experiences as likely or unlikely. | | |
| 10.5 Problem Solving Workshop Skill: Make a Prediction | NCTM Data Analysis and Probability: Discuss events related to students' experiences as likely or unlikely. | | |

Subject: Math

Grade: 2nd

Chapter/Outcome: Count Money (11)

Date Revised: February 2010

| Section | Outcomes | Modifications | Resources |
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| 11.1 Dimes, Nickels, and Pennies | NCTM Number and Operations: Count with understanding and recognize "how many" in sets of objects. | | For whole unit: Real coins |
| 11.2 Half Dollars and Quarters | NCTM Number and Operations: Count with understanding and recognize "how many" in sets of objects. | | Fake coins |
| 11.3 Count Collections | NCTM Number and Operations: Count with understanding and recognize "how many" in sets of objects. | | |
| 11.4 Hands On: Make the Same Amounts | NCTM Number and Operations: Use multiple models to develop initial understandings of place value and the base-ten number system. | | |
| 11.5 Problem Solving Workshop Strategy: Make a List | NCTM Number and Operations: Sort and classify objects according to their attributes and organize data about the objects. | | |

Subject: Math

Grade: 2nd

Chapter/Outcome: Use Money (12)

Date Revised: February 2010

| Section | Outcomes | Modifications | Resources |
|-------------------------------|---|---------------|-----------|
| 12.1 Algebra: Compare Amounts | N.ME.02.03 Compare and order numbers to 1000; use the symbols > and <. | | |
| 12.2 Problem Solving Workshop | M.PS.02.10 Solve simple word problems involving | | |

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| Strategy: Act It Out | length and money. | | |
| 12.3 Add and Subtract Money | M.PS.02.08 Add and subtract money in mixed units, e.g., \$2.50 + 60 cents and \$5.75 - \$3, but not \$2.50 + \$3.10. M.PS.02.10 Solve simple word problems involving length and money. | | |
| 12.4 Problem Solving Workshop Strategy: Predict and Test | M.PS.02.10 Solve simple word problems involving length and money. | | |
| 12.5 One Dollar | M.UN.02.07 Read and write amounts of money using decimal notations, e.g., \$1.15. | | |
| 12.6 Hands On: Make Change to \$1.00 | M.UN.02.07 Read and write amounts of money using decimal notations, e.g., \$1.15. | | |

Subject: Math

Grade: 2nd

Chapter/Outcome: Time (13)

Date Revised: February 2010

| Section | Outcomes | Modifications | Resources |
|-------------------------------|---|---------------|--------------------|
| 13.1 Explore Minute and Hours | NCTM Measurement: Recognize the attributes of length, volume, weight, area, and time. | | Large yellow clock |
| 13.2 Time to 15 Minutes | M.UN.02.05 Using both A.M. and P.M., tell and write time from the clock face in 5 minute intervals and from digital clocks to the minute; include reading time: 9:15 as nine fifteen and 9:50 as nine-fifty. Interpret time both as minutes after the hour and minutes before the next hour, e.g., 8:50 as eight fifty and ten to nine. Show times by drawing hands on clock face. | | Wall clock |

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| <p>13.3 Hands On: Time to 5 minutes</p> | <p>M.UN.02.05 Using both A.M. and P.M., tell and write time from the clock face in 5 minute intervals and from digital clocks to the minute; include reading time: 9:15 as nine fifteen and 9:50 as nine-fifty. Interpret time both as minutes after the hour and minutes before the next hour, e.g., 8:50 as eight fifty and ten to nine. Show times by drawing hands on clock face.</p> | | <p>Individual white boards</p> |
| <p>13.4 Time Before the Hour</p> | <p>M.UN.02.05 Using both A.M. and P.M., tell and write time from the clock face in 5 minute intervals and from digital clocks to the minute; include reading time: 9:15 as nine fifteen and 9:50 as nine-fifty. Interpret time both as minutes after the hour and minutes before the next hour, e.g., 8:50 as eight fifty and ten to nine. Show times by drawing hands on clock face.</p> | | |
| <p>13.5 Problem Solving Workshop Skill: Make Reasonable Estimates</p> | <p>NCTM Measurement: Select an appropriate unit and tool for the attribute being measured.</p> | | |
| <p>13.6 A.M. and P.M.</p> | <p>M.UN.02.05 Using both A.M. and P.M., tell and write time from the clock face in 5 minute intervals and from digital clocks to the minute; include reading time: 9:15 as nine fifteen and 9:50 as nine-fifty. Interpret time both as minutes after the hour and minutes before the next hour, e.g., 8:50 as eight fifty and ten to nine. Show times by drawing hands on clock face.</p> | | |
| <p>13.7 Hands On: Elapsed Time</p> | <p>M.UN.02.06 Use the concept of duration of time, e.g., determine what time it will be half an hour from 10:15.</p> | | |

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| 13.8 Days, Weeks, Months, and Years | NCTM Measurement: Recognize the attributes of length, volume, weight, area, and time. | | Calendar Wall chart Containers of various sizes |
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Subject: Math

Grade: 2nd

Chapter/Outcome: Solid Figures (14)

Date Revised: February 2010

| Section | Outcomes | Modifications | Resources |
|---|---|---------------|---------------------------------|
| 14.1 Identify Solid Figures | G.GS.02.01 Identify, describe, and compare familiar two-dimensional and three-dimensional shapes such as triangles, rectangles, squares, circles, semi-circles, spheres and rectangular prisms. | | Various solid shapes |
| 14.2 Hands On: Algebra: Sort Solid Figures | G.GS.02.04 Distinguish between curves and straight lines and between curved surfaces and flat surfaces. | | |
| 14.3 Hands On: Attributes of Solid Figures | G.SR.02.05 Classify familiar plane and solid objects, e.g., square, rectangle, rhombus, cube, pyramid, prism, cone, cylinder, and sphere, by common attributes such as shape, size, color, roundness, or number of corners and explain which attributes are being used for classification. | | Real life examples in classroom |
| 14.4 Hands On: Compare and Contrast Solid Figures | G.GS.02.04 Distinguish between curves and straight lines and between curved surfaces and flat surfaces. G.SR.02.05 Classify familiar plane and solid objects, e.g., square, rectangle, rhombus, cube, pyramid, prism, cone, cylinder, and sphere, by common attributes such as shape, size, color, roundness, or number of corners and explain which attributes are being used for | | |

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| <p>14.5 Hands On: Make Plane Figures from Solid Figures</p> | <p>classification.</p> <p>G.GS.02.01 Identify, describe, and compare familiar two-dimensional and three-dimensional shapes such as triangles, rectangles, squares, circles, semi-circles, spheres and rectangular prisms.</p> <p>G.SR.02.05 Classify familiar plane and solid objects, e.g., square, rectangle, rhombus, cube, pyramid, prism, cone, cylinder, and sphere, by common attributes such as shape, size, color, roundness, or number of corners and explain which attributes are being used for classification.</p> | | |
| <p>14.6 Problem Solving Workshop Strategy: Make a Table</p> | <p>G.GS.02.01 Identify, describe, and compare familiar two-dimensional and three-dimensional shapes such as triangles, rectangles, squares, circles, semi-circles, spheres and rectangular prisms.</p> <p>G.SR.02.05 Classify familiar plane and solid objects, e.g., square, rectangle, rhombus, cube, pyramid, prism, cone, cylinder, and sphere, by common attributes such as shape, size, color, roundness, or number of corners and explain which attributes are being used for classification.</p> | | |

Subject: Math
2010

Grade: 2nd

Chapter/Outcome: Plane Figures and Spatial Sense (8)

Date Revised: February

| Section | Outcomes | Modifications | Resources |
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| 15.1 Identify Plane Figures | G.GS.02.01 Identify, describe, and compare familiar | | |

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| 15.2 Algebra: Sort Plane Figures | <p>two-dimensional and three-dimensional shapes such as triangles, rectangles, squares, circles, semi-circles, spheres and rectangular prisms.</p> <p>G.SR.02.05 Classify familiar plane and solid objects, e.g., square, rectangle, rhombus, cube, pyramid, prism, cone, cylinder, and sphere, by common attributes such as shape, size, color, roundness, or number of corners and explain which attributes are being used for classification.</p> | | |
| 15.3 Hands On: Combine Plane Figures | <p>G.GS.02.02 Explore and predict the results of putting together and taking apart two-dimensional and three-dimensional shapes.</p> | | |
| 15.4 Hands On: Separate Plane Figures | <p>G.GS.02.02 Explore and predict the results of putting together and taking apart two-dimensional and three-dimensional shapes.</p> | | |
| 15.5 Problem Solving Workshop Strategy: Use Logical Reasoning | <p>G.SR.02.05 Classify familiar plane and solid objects, e.g., square, rectangle, rhombus, cube, pyramid, prism, cone, cylinder, and sphere, by common attributes such as shape, size, color, roundness, or number of corners and explain which attributes are being used for classification.</p> | | |
| 15.6 Hands On: Slides, Flips, and Turns | <p>G.TR.02.06 Recognize that shapes that have been slid, turned or flipped are the same shape, e.g., a square rotated 45° is still a square.</p> | | |
| 15.7 Congruent Figures | <p>G.GS.02.01 Identify, describe, and compare familiar two-dimensional and three-dimensional</p> | | |

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| 15.8 Symmetry | <p>shapes such as triangles, rectangles, squares, circles, semi-circles, spheres and rectangular prisms.</p> <p>NCTM Geometry: Recognize and create shapes that have symmetry.</p> | | |
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Subject: Math

Grade: 2nd

Chapter/Outcome: Patterns (16) Date Revised: February 2010

| Section | Outcomes | Modifications | Resources |
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| 16.1 Algebra: Identify and Describe Patterns | NCTM Algebra: Analyze how both repeating and growing patterns are generated. | | Clapping hands |
| 16.2 Algebra: Predict and Extend Patterns | NCTM Algebra: Recognize, describe, and extend patterns such as sequences of sounds and shapes or simple numeric patterns and translate from one representation to another. | | |
| 16.3 Hands On Algebra: Create a Pattern | NCTM Algebra: Recognize, describe, and extend patterns such as sequences of sounds and shapes or simple numeric patterns and translate from one representation to another. | | |
| 16.4 Find the Missing Piece | NCTM Algebra: Analyze how both repeating and growing patterns are generated. | | |
| 16.5 Hands On: Algebra: A Growing Pattern | NCTM Algebra: Analyze how both repeating and growing patterns are generated. | | |
| 16.6. Algebra: Predict and Extend a Growing Pattern | NCTM Algebra: Recognize, describe, and extend patterns such as sequences of sounds and shapes or simple numeric patterns and translate from one representation to another. | | |
| 16.7 Problem Solving Workshop Strategy: Find a | NCTM Algebra: Recognize, describe, and extend patterns such as sequences of sounds and shapes or simple numeric patterns and translate from one | | |

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| Pattern | representation to another. | | |
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Subject: Math

Grade: 2nd

Chapter/Outcome: Length, Perimeter, and Area (17) Date Revised: February 2010

| Section | Outcomes | Modifications | Resources |
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| 17.1 Hands On: Measure Length with Nonstandard Units | NCTM Measurement: Measure with multiple copies of units of the same size such as paper clips laid end to end. | | For whole unit: CM/IN Ruler Yard stick |
| 17.2 Hands On: Measure to the Nearest Inch | N.ME.02.20 Place 0 and halves, e.g., 1/2, 1½, 2½, on the number line; relate to a ruler. M.UN.02.01 Measure lengths in meters, centimeters, inches, feet, and yards approximating to the nearest whole unit and using abbreviations: cm, m, in, ft, yd. | | Meter stick |
| 17.3 Problem Solving Workshop Skill: Make Reasonable Estimates | M.PS.02.02 Compare lengths; add and subtract lengths (no conversion of units). M.PS.02.10 Solve simple word problems involving length and money. | | |
| 17.4 Hands On: Inch, Foot, and Yard | M.UN.02.01 Measure lengths in meters, centimeters, inches, feet, and yards approximating to the nearest whole unit and using abbreviations: cm, m, in, ft, yd. | | |
| 17.5 Hands On: Measure to the | M.UN.02.01 Measure lengths in meters, centimeters, | | Activity that measures distance toy car rolls down ramp |

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| Nearest Centimeter | inches, feet, and yards approximating to the nearest whole unit and using abbreviations: cm, m, in, ft, yd. | | |
| 17.6 Hands On: Centimeter and Meter | M.UN.02.01 Measure lengths in meters, centimeters, inches, feet, and yards approximating to the nearest whole unit and using abbreviations: cm, m, in, ft, yd. | | |
| 17.7 Hands On: Perimeter | M.TE.02.11 Determine perimeters of rectangles and triangles by adding lengths of sides, recognizing the meaning of perimeter. | | |
| 17.8 Hands On: Area | M.TE.02.04 Find the area of a rectangle with whole number side lengths by covering with unit squares and counting, or by using a grid of unit squares; write the area as a product. | | Walk perimeter of parking lot |
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Subject: Math

Grade: 2nd

Chapter/Outcome: Weight, Mass, (18) Date Revised: February 2010
Capacity, and Temperature

| Section | Outcomes | Modifications | Resources |
|---|---|---------------|---|
| 18.1 Hands On: Ounces and Pounds | NCTM Measurement: Select an appropriate unit and tool for the attribute being measured. | | Various containers from resource room Wall chart |
| 18.2 Hands On: Grams and Kilograms | NCTM Measurement: Select an appropriate unit and tool for the attribute being measured. | | |
| 18.3 Hands On: Cups, Pints, Quarts, and Gallons | NCTM Measurement: Use repetition of a single unit to measure something larger than the unit, for instance measuring the length of a room with a single meter stick. | | |

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| 18.4 Hands On: Liters | NCTM Measurement: Develop common referents for measures to make comparison and estimates. | | |
| 18.5 Hands On: Measure Temperature | M.UN.02.09 Read temperature using the scale on a thermometer in degrees Fahrenheit. | | |
| 18.6 Problem Solving Workshop Skill: Choose the Measuring Tool | NCTM Measurement: Select an appropriate unit and tool for the attribute being measured. | | Thermometer from resource room |

Subject: Math

Grade: 2nd

Chapter/Outcome: 2-Digit Subtraction (8)

Date Revised: February 2010

| Section | Outcomes | Modifications | Resources |
|---|---|---------------|-------------------------|
| 19.1 Unit Fractions | N.ME.02.18 Recognize, name, and represent commonly used unit fractions with denominators 12 or less; model $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$ by folding strips. N.ME.02.19 Recognize, name, and write commonly used fractions: $\frac{1}{2}$, $\frac{1}{3}$, $\frac{2}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$. | | Overhead fraction parts |
| 19.2 Hands On: Compare Unit Fractions | N.ME.02.19 Recognize, name, and write commonly used fractions: $\frac{1}{2}$, $\frac{1}{3}$, $\frac{2}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$. N.ME.02.21 For unit fractions from $\frac{1}{12}$ to $\frac{1}{2}$, understand the inverse relationship between the size of a unit fraction and the size of the denominator; compare unit fractions from $\frac{1}{12}$ to $\frac{1}{2}$. | | Wall chart |
| 19.3 Problem Solving Workshop Strategy: Make a Model | N.ME.02.21 For unit fractions from $\frac{1}{12}$ to $\frac{1}{2}$, understand the inverse relationship between the size of a unit fraction and the size of the denominator; compare unit fractions from $\frac{1}{12}$ to $\frac{1}{2}$. | | |

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| 19.4 Other Fractions | N.ME.02.19 Recognize, name, and write commonly used fractions: $\frac{1}{2}$, $\frac{1}{3}$, $\frac{2}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$. | | |
| 19.5 Fractions Equal to 1 | N.ME.02.22 Recognize that fractions such as $\frac{2}{2}$, $\frac{3}{3}$ and $\frac{4}{4}$ are equal to the whole (one). | | |
| 19.6 Hands On: Fractions of a Group | N.ME.02.18 Recognize, name, and represent commonly used unit fractions with denominators 12 or less; model $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$ by folding strips. N.ME.02.19 Recognize, name, and write commonly used fractions: $\frac{1}{2}$, $\frac{1}{3}$, $\frac{2}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$. | | Paper |

Subject: Math

Grade: 2nd

Chapter/Outcome: Place Value (20)

Date Revised: February 2010

| Section | Outcomes | Modifications | Resources |
|---|---|---------------|-----------|
| 20.1 Hundreds | N.ME.02.02 Read and write numbers to 1000 in numerals and words, and relate them to the quantities they represent. | | 200 chart |
| 20.2 Hands On: Hundreds, Tens, and Ones | N.ME.02.02 Read and write numbers to 1000 in numerals and words, and relate them to the quantities they represent. N.ME.02.05 Express numbers through 999 using place value, e.g., 137 is 1 hundred, 3 tens, and 7 ones; use concrete materials. | | |
| 20.3 Understand Place Value | N.ME.02.05 Express numbers through 999 using place value, e.g., 137 is 1 hundred, 3 tens, and 7 ones; use concrete materials. | | |

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| 20.4 Read and Write 3-Digit Numbers | N.ME.02.02 Read and write numbers to 1000 in numerals and words, and relate them to the quantities they represent. | | |
| 20.5 Hands On: Different Ways to Show Numbers | N.ME.02.02 Read and write numbers to 1000 in numerals and words, and relate them to the quantities they represent. | | |
| 20.6 Problem Solving Workshop Strategy: Make a Model | M.UN.02.07 Read and write amounts of money using decimal notations, e.g., \$1.15. | | |

Subject: Math

Grade: 2nd

Chapter/Outcome: Compare and Order (21)
Greater Numbers

Date Revised: February 2010

| Section | Outcomes | Modifications | Resources |
|--|---|---------------|-------------------------|
| 21.1 Algebra: Compare Numbers: >, <, or = | N.ME.02.03 Compare and order numbers to 1000; use the symbols > and <. | | Individual white boards |
| 21.2 Use Place Value to Compare Numbers | N.ME.02.03 Compare and order numbers to 1000; use the symbols > and <. | | |
| 21.3 Algebra: Order Numbers | N.ME.02.03 Compare and order numbers to 1000; use the symbols > and <. | | |
| 21.4 Problem Solving Workshop Skill: Use a Table | N.ME.02.03 Compare and order numbers to 1000; use the symbols > and <. | | |
| 21.5 Algebra: Skip-Counting Patterns | N.ME.02.01 Count to 1000 by 1's, 10's and 100's starting from any number in the sequence. N.ME.02.04 Count orally by 3's and 4's starting with 0, and by 2's, 5's and 10's starting from any | | |

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| | whole number. N.MR.02.07 Find the distance between numbers on the number line, e.g., how far is 79 from 26? | | |
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Subject: Math

Grade: 2nd

Chapter/Outcome: 3-Digit Addition (22) Date Revised: February 2010

| Section | Outcomes | Modifications | Resources |
|---|--|---------------|-------------------------|
| 22.1 3-Digit Addition | N.ME.02.01 Count to 1000 by 1's, 10's and 100's starting from any number in the sequence. | | Flash cards |
| 22.2 Hands On: Model 3-Digit Addition: Regroup Ones | N.FL.02.11 Estimate the sum of two numbers with three digits. | | Individual white boards |
| 22.3 Hands On: Model 3-Digit Addition: Regroup Tens | N.FL.02.11 Estimate the sum of two numbers with three digits. | | Addition Bingo game |
| 22.4 Estimate Sums | N.FL.02.11 Estimate the sum of two numbers with three digits. | | |
| 22.5 Problem Solving Workshop Skill: Too Much Information | NCTM Numbers and Operations: Develop and use strategies for whole-number computations, with a focus on addition and subtraction. | | |

Subject: Math

Grade: 2nd

Chapter/Outcome: 3-Digit Subtraction (23)

Date Revised: February 2010

| Section | Outcomes | Modifications | Resources |
|--|---|---------------|------------------------|
| 23.1 Mental Math: Subtract Multiples of 100 | NCTM Number and Operations: Use a variety of methods and tools to compute, including objects, mental computation, estimation, paper and pencil, and calculator. | | Subtraction Bingo game |
| 23.2 Hands On: Model 3-Digit Subtraction: Regroup Tens | N.FL.02.11 Estimate the sum of two numbers with three digits. | | |
| 23.3 Hands On: Model 3-Digit Subtraction: Regroup Hundreds | N.FL.02.11 Estimate the sum of two numbers with three digits. | | |
| 23.4 Add and Subtract Money | M.PS.02.08 Add and subtract money in mixed units, e.g., \$2.50 + 60 cents and \$5.75 - \$3, but not \$2.50 + \$3.10. M.PS.02.10 Solve simple word problems involving length and money. | | |
| 23.5 Problem Solving Workshop Skill: Solve Multistep Problems | M.PS.02.10 Solve simple word problems involving length and money. | | |
| 23.6 Estimate Differences | NCTM Number and Operations: Use a variety of methods and tools to compute, including objects, mental computation, estimation, paper and pencil, and calculator. | | Calculator |

| Section | Outcomes | Modifications | Resources |
|---|--|---------------|-----------|
| 24.1 Skip-Count Equal Groups | <p>N.ME.02.04 Count orally by 3's and 4's starting with 0, and by 2's, 5's and 10's starting from any whole number.</p> <p>N.MR.02.13 Understand multiplication as the result of counting the total number of objects in a set of equal groups, e.g., 3×5 gives the number of objects in 3 groups of 5 objects, or $3 \times 5 = 5 + 5 + 5 = 15$.</p> <p>N.FL.02.17 Develop strategies for fluently multiplying numbers up to 5×5.</p> | | |
| 24.2 Hands On: Connect Addition to Multiplication | <p>N.MR.02.13 Understand multiplication as the result of counting the total number of objects in a set of equal groups, e.g., 3×5 gives the number of objects in 3 groups of 5 objects, or $3 \times 5 = 5 + 5 + 5 = 15$.</p> <p>N.MR.02.15 Understand division (\div) as another way of expressing multiplication, using fact families within the 5×5 multiplication table; emphasize that division "undoes" multiplication, e.g., $2 \times 3 = 6$ can be rewritten as $6 \div 2 = 3$ or $6 \div 3 = 2$.</p> <p>N.FL.02.17 Develop strategies for fluently multiplying numbers up to 5×5.</p> | | |
| 24.3 Hands On: Algebra: Model with Arrays | <p>N.MR.02.14 Represent multiplication using area and array models.</p> <p>N.FL.02.17 Develop strategies for fluently multiplying numbers up to 5×5.</p> <p>M.TE.02.04 Find the area of a rectangle with whole</p> | | |

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| <p>24.4 Algebra: Multiply in Any Order</p> | <p>number side lengths by covering with unit squares and counting, or by using a grid of unit squares; write the area as a product.</p> <p>N.FL.02.17 Develop strategies for fluently multiplying numbers up to 5 x 5.</p> | | |
| <p>24.5 Multiply with 1 and 0</p> | <p>N.FL.02.17 Develop strategies for fluently multiplying numbers up to 5 x 5.</p> | | |
| <p>24.6 Problem Solving Workshop Strategy: Write a Number Sentence</p> | <p>N.MR.02.09 Given a contextual situation that involves addition and subtraction using numbers through 99: model using objects or pictures, explain in words, record using numbers and symbols; solve.</p> | | |
| <p>24.7 Hands On: Size of Shares</p> | <p>N.MR.02.15 Understand division (\div) as another way of expressing multiplication, using fact families within the 5 x 5 multiplication table; emphasize that division "undoes" multiplication, e.g., $2 \times 3 = 6$ can be rewritten as $6 \div 2 = 3$ or $6 \div 3 = 2$. N.MR.02.16 Given a simple situation involving groups of equal size or of sharing equally, represent with objects, words, and symbols; solve.</p> | | |
| <p>24.8 Hands On: Number of Equal Shares</p> | <p>N.MR.02.15 Understand division (\div) as another way of expressing multiplication, using fact families within the 5 x 5 multiplication table; emphasize that division "undoes" multiplication, e.g., $2 \times 3 = 6$ can be rewritten as $6 \div 2 = 3$ or $6 \div 3 = 2$. N.MR.02.16 Given a simple situation involving groups of equal size or of sharing equally, represent with objects, words, and symbols; solve.</p> | | |

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| 24.9 Connect Subtraction to Division | N.MR.02.15 Understand division (\div) as another way of expressing multiplication, using fact families within the 5 x 5 multiplication table; emphasize that division "undoes" multiplication, e.g., $2 \times 3 = 6$ can be rewritten as $6 \div 2 = 3$ or $6 \div 3 = 2$. N.MR.02.16 Given a simple situation involving groups of equal size or of sharing equally, represent with objects, words, and symbols; solve. | | |
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