Moving Beyond the Page Math

Age 6-8

Recommend two year span, completing a unit every 6 weeks

(make sure to complete each activity in the lessons)

Unit 1: Number Sense, Lesson 1: Patterns are Everywhere!

* Identify patterns in the real world
* Distinguish between patterns and non-patterns
* Create visual patterns

Unit 1: Number Sense, Lesson 2: Patterns in Numbers

* Count within 1000; skip-count by 5s, 10s, and 100s
* Model with mathematics

Unit 1: Number Sense, Lesson 3: Missing Numbers

* Reason abstractly and quantitatively

Unit 1: Number Sense, Lesson 4: The Power of 10

* Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900
* Make sense of problems and persevere in solving them
* Model with mathematics

Unit 1: Number Sense, Lesson 5: Comparing Numbers

* Reason abstractly and quantitatively
* Model with mathematics
* Construct viable arguments and critique the reasoning of others
* Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate

Unit 1: Number Sense, Lesson 6: Equal Groups

* Determine whether a group of objects (up to 20) has an odd or even number of members, write an equation to express an even number as a sum of two equal addends
* Make sense of problems and persevere in solving them
* Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems

Unit 1: Number Sense, Final Project: Project Number Sense!

* Count within 1000; skip-count by 5s, 10s, and 100s
* Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900
* Determine whether a group of objects (up to 20) has an odd or even number of members, write an equation to express an even number as a sum of two equal addends
* Make sense of problems and persevere in solving them
* Make sense of problems and persevere in solving them
* Attend to precision

Unit 2: Addition and Subtraction/Fact Power!, Lesson 1: Using Arrays to Add

* Use addition to find the total number of objects arrange in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends

Unit 2: Addition and Subtraction/Fact Power!, Lesson 2: So Many More Ways to Add

* Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apparat, and comparing, with unknowns in all positions

Unit 2: Addition and Subtraction/Fact Power!, Lesson 3: Problem Solving with Addition

* Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apparat, and comparing, with unknowns in all positions
* Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers
* Generate and solve problem situations

Unit 2: Addition and Subtraction/Fact Power!, Lesson 4: Time to Subtract!

* Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apparat, and comparing, with unknowns in all positions
* Fluently add and subtract within 20 using mental strategies.
* Explain why addition and subtraction strategies work, using place value and the properties of operations

Unit 2: Addition and Subtraction/Fact Power!, Lesson 5: Problem Solving with Subtractions

* Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apparat, and comparing, with unknowns in all positions
* Generate and solve problem situations

Unit 2: Addition and Subtraction/Fact Power!, Lesson 6: Tricks to Build Fact Power

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

Unit 2: Addition and Subtraction/Fact Power!, Lesson 7: Another Trick: Fact Families

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

Unit 2: Unit 2: Addition and Subtraction/Fact Power!, Lesson 8: Adding and Subtracting to Solve Problems

* Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apparat, and comparing, with unknowns in all positions
* Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers

Unit 2: Unit 2: Addition and Subtraction/Fact Power!, Final Project: Mathematical Ocean Adventure

* Fluently add and subtract within 20 using mental strategies. By end of Grade 2, know from memory all sums of two one-digit numbers
* Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apparat, and comparing, with unknowns in all positions

Unit 3: Geometry, Lesson 1: Getting To Know Attributes

* Recognize and use knowledge of attributes

Unit 3: Geometry, Lesson 2: Making and Naming Polygons

* Recognize and create shapes having specified attributes
* Identify triangles, squares, rectangles, pentagons, hexagons, and other polygons
* Understand that a circle is not a polygon

Unit 3: Geometry, Lesson 3: Polygon Attributes

* Recognize and create shapes having specified attributes, such as a given number of angles
* Identify the parts of polygons
* Distinguish regular and irregular shapes

Unit 3: Geometry, Lesson 4: Quadrilaterals

* Recognize and create shapes having specified attributes
* Distinguish squares and rectangles

Unit 3: Geometry, Lesson 5: Shaping Up!

* Recognize and create shapes

Unit 3: Geometry, Lesson 6: Fun With Tessellations and Tangrams

* Copy and create images using shapes

Unit 3: Geometry, Lesson 7: Dividing Shapes

* Partition circles and rectangles into two, three, or four equal shares
* Describe equal shares using the words halves, thirds, and fourths and describe the whole as two halves, three thirds, four fourths

Unit 3: Geometry, Lesson 8: Solid Shapes

* Recognize and create solids
* Identify the parts of solids

Unit 3: Geometry, Final Project: Playground Plans

* Recognize and create shapes
* Use shapes and solids to create pictures/images

Unit 4: Place Value I, Lesson 1: Two-Digit Place Value Review

* Read and write numbers to 1000 using base-ten numerals, number names, and expanded form

Unit 4: Place Value I, Lesson 2: Adding to 100

* Mentally add 10 and multiples of 10 to any number
* Add two-digit numbers
* Apply mental math strategies

Unit 4: Place Value I, Lesson 3: Addition Tricks!

* Add one-digit and two-digit numbers
* Apply mental math strategies

Unit 4: Place Value I, Lesson 4: Lots of Subtraction!

* Mentally subtract 10 from any number
* Subtract two-digit numbers

Unit 4: Place Value I, Lesson 5: Place Value to 1000

* Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones
* Understand the numbers 100, 200, 300, 400, 500, 600, 70, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds (and 0 tens and 0 ones)
* Count within 100
* Skip count by 100s
* Read and write numbers to 1000
* Add and subtract two-digit numbers

Unit 4: Place Value I, Lesson 6: More Practice With Numbers to 1000

* Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones
* Read and write numbers to 1000
* Add and subtract two-digit numbers

Unit 4: Place Value I, Lesson 7: Comparing Three Digit Numbers

* Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones
* Read and write numbers to 1000
* Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons

Unit 4: Place Value I, Lesson 8: Skip Counting by 10 Within 1000

* Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones
* Count within 100
* Skip count by 5s, 10s, and 100s
* Read and write numbers to 1000

Unit 4: Place Value I, Lesson 9: Fun With Big Numbers

* Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones
* Count within 100
* Skip count by 5s, 10s, and 100s
* Read and write numbers to 1000
* Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits

Unit 4: Place Value I, Final Project: Place Value Think-Tac-Toe

* Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones
* Count within 100
* Read and write numbers to 1000
* Compare three-digit numbers
* Add and subtract two-digit numbers
* Apply mental math strategies

Unit 5: Measurement: Length, Lesson 1: Why Do We Use Standard Measurement Units?

* Measure the length of an object twice
* Read and write numbers to 1000

Unit 5: Measurement: Length, Lesson 2: Inches

* Estimate lengths using units of inches, feet, centimeters, and meters
* Measure the length of an object twice
* Read and write numbers to 1000
* Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones

Unit 5: Measurement: Length, Lesson 3: Inches and Feet

* Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes
* Read and write numbers to 1000
* Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones

Unit 5: Measurement: Length, Lesson 4: The Metric System, Too

* Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes
* Measure the length of an object twice, using length units of different lengths for the two measurements
* Read and write numbers to 1000
* Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones

Unit 5: Measurement: Length, Lesson 5: More Work With Measurement Units

* Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes
* Measure the length of an object twice, using length units of different lengths for the two measurements
* Estimate lengths using units of inches, feet, centimeters, and meters
* Read and write numbers to 1000
* Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones

Unit 5: Measurement: Length, Lesson 6: Creating With Measurement

* Create using measurement
* Read and write numbers to 1000
* Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones

Unit 5: Measurement: Length, Lesson 7: The Right Tools for the Job

* Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes
* Read and write numbers to 1000
* Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones

Unit 5: Measurement: Length, Lesson 8: Comparing Lengths

* Measure the length of an object twice, using length units of different lengths for the two measurements
* Estimate lengths using units of inches, feet, centimeters, and meters
* Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit
* Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units
* Read and write numbers to 1000
* Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones

Unit 5: Measurement: Length, Lesson 9: Gummy Worms and Measurement Data

* Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes
* Estimate lengths using units of inches, feet, centimeters, and meters
* Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units
* Generate measurement data by measuring lengths of several objects to the nearest whole unit
* Show measurement data by making a line plot
* Read and write numbers to 1000
* Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones

Unit 5: Measurement: Length, Final Project: Measurement in My World

* Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes
* Generate measurement data by measuring lengths of several objects to the nearest whole unit

Unit 6: Place Value II, Lesson 1: Adding Multi-Digit Numbers

* Fluently add and subtract within 100
* Add up to four two-digit numbers
* Add and subtract within 1000

Unit 6: Place Value II, Lesson 2: Going Further With Subtraction

* Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction

Unit 6: Place Value II, Lesson 3: Three-Digit Place Value Review

* Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones
* Count within 100
* Read and write numbers to 1000 using base-ten numerals, number names, and expanded form
* Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using >, =, and < symbols to record the results of comparisons

Unit 6: Place Value II, Lesson 4: Adding and Subtracting 10 and 100 Within 1000

* Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900
* Add and subtract within 1000

Unit 6: Place Value II, Lesson 5: Adding Within 1000

* Add and subtract within 1000
* Read and write numbers to 1000

Unit 6: Place Value II, Lesson 6: Subtracting Within 1000

* Add and subtract within 1000

Unit 6: Place Value II, Lesson 7: More Addition and Subtraction Practice

* Add and subtract within 1000

Unit 6: Place Value II, Final Project: Traveling Adventure!

* Read and write numbers to 1000
* Add and subtract within 1000

Unit 7: Telling Time, Lesson 1: Telling Time to the Hour and Half Hour Review

* Tell and write time from analog and digital clocks to the nearest five minutes, using AM and PM

Unit 7: Telling Time, Lesson 2: AM and PM

* Tell and write time from analog and digital clocks to the nearest five minutes, using AM and PM
* Add and subtract within 1000

Unit 7: Telling Time, Lesson 3: Units of Time

* Tell and write time from analog and digital clocks to the nearest five minutes, using AM and PM
* Add and subtract within 1000

Unit 7: Telling Time, Lesson 4: Telling Time to 5 Minutes

* Tell and write time from analog and digital clocks to the nearest five minutes, using AM and PM
* Sequence times
* Add and subtract within 1000

Unit 7: Telling Time, Lesson 5: Ways to Say Times

* Tell and write time from analog and digital clocks to the nearest five minutes, using AM and PM

Unit 7: Telling Time, Lesson 6: Time and Daily Activities

* Tell and write time from analog and digital clocks to the nearest five minutes, using AM and PM
* Relate time to daily activities
* Add and subtract within 1000

Unit 7: Telling Time, Lesson 7: More Practice With Time

* Tell and write time from analog and digital clocks to the nearest five minutes, using AM and PM

Unit 7: Telling Time, Lesson 8: Time Problem Solving

* Tell and write time from analog and digital clocks to the nearest five minutes, using AM and PM
* Relate time to daily activities

Unit 7: Telling Time, Final Project: Making a Schedule

* Tell and write time from analog and digital clocks to the nearest five minutes, using AM and PM
* Sequence times
* Relate time to daily activities

Unit 8: Money, Lesson 1: Penny, Nickel, and Dime Review

* Count cent and dollar amounts
* Show cent and dollar amounts
* Show equal amounts of money in different ways
* Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and cent symbols appropriately
* Tell and write time from analog and digital clocks to the nearest five minutes

Unit 8: Money, Lesson 2: Introducing Quarters!

* Count cent and dollar amounts
* Show cent and dollar amounts
* Show equal amounts of money in different ways
* Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and cent symbols appropriately
* Add and subtract within 1000

Unit 8: Money, Lesson 3: More Practice With Coins

* Count cent and dollar amounts
* Show cent and dollar amounts
* Show equal amounts of money in different ways
* Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and cent symbols appropriately
* Mentally add 100 to a given number 100-900 and mentally subtract 100 from a given number 100-900

Unit 8: Money, Lesson 4: Fun With Money

* Count cent and dollar amounts
* Show cent and dollar amounts
* Show equal amounts of money in different ways
* Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and cent symbols appropriately
* Add and subtract within 1000
* Tell and write time from analog and digital clocks to the nearest five minutes

Unit 8: Money, Lesson 5: Making a Dollar

* Count cent and dollar amounts
* Show cent and dollar amounts
* Show equal amounts of money in different ways
* Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and cent symbols appropriately

Unit 8: Money, Lesson 6: Work With a Dollar and More

* Count cent and dollar amounts
* Show cent and dollar amounts
* Show equal amounts of money in different ways
* Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and cent symbols appropriately

Unit 8: Money, Lesson 7: Money Problem Solving

* Count cent and dollar amounts
* Show cent and dollar amounts
* Show equal amounts of money in different ways
* Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and cent symbols appropriately
* Add and subtract within 1000

Unit 8: Money, Lesson 8: Time to Shop!

* Count cent and dollar amounts
* Show cent and dollar amounts
* Show equal amounts of money in different ways
* Compare amounts of money
* Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and cent symbols appropriately

Unit 8: Money, Lesson 9: Some More Practice With Money

* Count cent and dollar amounts
* Show cent and dollar amounts
* Show equal amounts of money in different ways
* Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and cent symbols appropriately

Unit 8: Money, Final Project: A Cereal Box About Money

* Count cent and dollar amounts
* Show cent and dollar amounts
* Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using $ and cent symbols appropriately

Unit 9: Data and Graphing, Lesson 1: Data is Everywhere!

* Collect data

Unit 9: Data and Graphing, Lesson 2: Pictographs

* Collect data
* Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories
* Solve simple put-together, take-apart, and compare problems using information presented in a bar graph

Unit 9: Data and Graphing, Lesson 3: Bar Graphs

* Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories
* Solve simple put-together, take-apart, and compare problems using information presented in a bar graph

Unit 9: Data and Graphing, Lesson 4: Line Plots

* Generate measurement data by measuring lengths of several objects to the nearest whole unit
* Show the measurements by making a line plot, where the horizontal scale is marked off in a whole-number units

Unit 9: Data and Graphing, Lesson 5: More Graphing Practice

* Collect data
* Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories
* Solve simple put-together, take-apart, and compare problems using information presented in a bar graph

Unit 9: Data and Graphing, Lesson 6: Some Problem Solving

* Solve simple put-together, take-apart, and compare problems using information presented in a bar graph

Unit 9: Data and Graphing, Final Project: My Book of Graphs

* Collect data
* Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories
* Solve simple put-together, take-apart, and compare problems using information presented in a bar graph

Unit 10: Skills Review, Lesson 1: Reviewing Numbers to 1000

* Mentally add and subtract 10 and 100 to and from a given number 100-900
* Read and write numbers to 1000 using base-ten numerals, number names, and expanded form
* Compare two three-digit numbers

Unit 10: Skills Review, Lesson 2: Reviewing Addition and Subtraction Within 1000

* Count within 1000;skip count by 10s and 100s
* Add and subtract within 1000
* Tell, write, and show times to the nearest five minutes

Unit 10: Skills Review, Lesson 3: Reviewing Linear Measurement

* Tell, write, and show times to the nearest five minutes
* Measure the length of an object by using the appropriate tools
* Estimate lengths using inches, feet, centimeters, and meters

Unit 10: Skills Review, Lesson 4: Reviewing Geometry

* Show cent and dollar amounts
* Recognize and draw shapes having given attributes
* Identify triangles, quadrilaterals, pentagons, hexagons, and cubes
* Partition circles and rectangles into two, three, and four equal shares, using the words halves, thirds, quarters/fourths