Math Curriculum Map for Second Grade

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	September	October	November	December	January	
Unit Name or Theme	Using Addition Strategies	Pumpkin Math	Using Subtraction Strategies	Gingerbread Math	Telling Time	Unit Name or Theme
Enduring Understandings and Performance Indicators	Patterns are predictable Patterns exhibit relationships Numbers can help us solve problems Ordinal numbers and money can help us describe positions or quantities Addition helps us explain relationships between numbers, sets and patterns	Attributes demonstrate similarities & differences Attributes are measurable Three dimensional shapes can be described, classified and compared according to characteristics Questions can be answered by collecting, representing and analyzing data Measuring shapes and units can help us understand size and volume We use a variety of tools and methods to help us problem solve	Subtraction helps us explain differences among numbers, sets and patterns Addition & subtraction are related Fact families can help us identify relationships among numbers Numbers help us solve problems	Units of measurement help us to understand our world (e.g. perimeter, grids, coordinates) Grouping numbers can assist us in multiplication Estimation can help us solve problems Understanding the value of money can assist in solving a problem	Time is a unit of measurement Elapsed time can be calculated Calendars represent units of time Logical reasoning requires experience and research	Enduring Understandings and Performance Indicators
Essential Questions	How can we compare or sort sets? How can we order events based on time? How can mathematical problems be represented? What strategies can I apply when solving a mathematical problem?	How can we sort objects? Why do we organize & display data? How can we display data? How can mathematical situations be represented? How can measurement help us interpret our world?	How can mathematical situations and problems be represented? How can operations relate to one another?	How can we develop a map? How does grouping numbers or sets assist us in determining quantity or value? Why does the development of a spending plan solve a problem? How do I determine a reasonable estimate of values, sums, and differences of quantities?	How can I best explain time equivalents? How can I determine, record & explain elapsed time? How do calendars organize time? Why is logical reasoning purposeful?	Essential Questions
Assessment Strategies Formative & Summative	Calendar binder September assessment Paper/pencil tasks	Observations Checklists Paper/pencil tasks Everyday Math assessments	Calendar binder Everyday Math assessments Paper/pencil tasks October assessment	Calendar binder Everyday math assessments Observations: reindeer round-up interactive bulletin board Budget Village project Map project Fast fact test	Observations: clock movements, work stations Everyday Math assessments Lab assessment January assessment	Assessment Strategies Formative & Summative

Math Curriculum Map for Second Grade

Instructional Skills and Strategies	**Calendar Activities:** Predict the pattern, track days, graph, recite ordinals to 100, identify values of money, tally and move sets, pattern, trade money **Instructional Skills and Strategies:** Find sums through 24 using number lines, counting on, patterns, coin counting, missing addends, doubles, neighbors, fast 10s, 9s and 8s, three addends, draw, compare, mental math Form patterns with manipulatives, calendar pieces, money, shapes, and numbers Identify money up to sums using coins and trade	**Calendar Activities:** Extension of September, odd/even, skip counting **Instructional Skills and Strategies:** Display sets of pumpkins according to shape, color and size (e.g. inch, foot, meter, kilometer, centimeter) Represent whole numbers as length on a number line within 100 Describe attributes of pumpkins Solve mathematical riddles Measure pumpkin length and weight Estimate length and weight Count by 2s, 5s, 10s Identify odd/even Add and subtract within 100 to solve everyday problems	**Calendar Activities:** 3,4,5,6 patterns, tally, identify coins, switch counting, trade money, move sets of ten **Instructional Skills and Strategies:** To subtract count back, use doubles, use addition, use ten, use 7,8,9 Fact families	**Calendar Activities:** 3,5,10 patterns, abaa pattern, tallies, 100 chart, trade money, graph, mathematical statements, place value- move sets **Instructional Skills and Strategies:** Estimation, construct a scale-size town, develop a map, fact games, measurement with arrays, drawing perimeters, construct village, develop budget, compare measurements, flashcards for home practice	**Calendar Activities:** predict patterns, track days, graph, trade coins, elapsed time, tally, 100s chart, trade money, move sets **Instructional Skills and Strategies:** tell & write time to the hour, half-hour, quarter-hour, identify five & one minute intervals, use a.m. and p.m., estimate and determine elapsed time using addition & subtraction, read & develop schedules & calendars	Instructional Skills and Strategies
Primary Resources	EveryDay Math Box and Bag It Math Meacham's Calendar Pattern	Everyday Math Workbook (teacher generated) Balance scales Pumpkins of various sizes Unifix cubes and color tiles **Literature:** The Pumpkin Seed Book	Everyday Math Workbook (teacher generated) Calendar binder Box and Bag It Math Meacham's Calendar Pattern Numberlines Manipulatives	Everyday Math Math Excursions text Fast Fact packets Box and Bag It Math Meacham's Calendar Pattern Home connections	Everyday Math Clocks Box It and Bag It Math Meacham's Calendar Pattern Clock station	Primary Resources
Links with CCSS/ NCTM	CCSS 2.OA, 2.NBT NCTM Numbers and Operation Standard, Algebra, Problem Solving, Communications, Connections, Representation	CCSS 2.G, 2.MD, 2.OA NCTM Algebra, Geometry, Problem Solving, Communications, Connections, Representation	CCSS 2.OA, 2.NBT NCTM Numbers and Operation Standard, Algebra, Communications, Connections, Representation	CCSS 2.MD, 2.OA NCTM Measurement, Problem Solving, Reasoning and Proof Communications, Connections, Representation,	CCSS 2.MD NCTM Problem Solving, Communications, Connections, Representation	Links with CCSS/NCTM

Math Curriculum Map for Second Grade

	February	March	April	May	June	
Unit Name or Theme	Working with Money	Place Value Addition	Place Value Subtraction	Geometry and Fractions	Probability	Unit Name or Theme
Enduring Understandings and Performance Indicators	Money represents units of measurement Money has value, can be compared and represented in multiple ways Sums and differences of quantities can be estimated with monetary values	Numbers can be compared and ordered Inverse relationships exist between addition and subtraction statements Mathematical situations can be represented by operations	Numbers can be compared and ordered Inverse relationships exist between addition and subtraction statements Mathematical situations can be represented by operations	2 and 3 dimensional shapes can be represented by models and constructs Geometric shapes can be described, classified and compared according to their characteristics Geometric patterns can be recognized, described, extended and created based on attributes and numbers Symmetry represents balanced and repeated patterns found in geometric shapes and in nature The likelihood of an event can be described or written as a fraction	The possible results of an experiment can be described and graphed A difference can be determined between predicted and actual outcomes	Enduring Understandings and Performance Indicators
Essential Questions	How does money represent value? What is the relationship among coins and dollars? How can we use addition and subtraction to solve monetary situations?	What is the relationship among numbers? How can we represent similar numerical operations? Why should a mathematical operation be chosen to represent a solution to a problem?	What is the relationship among numbers? How can we represent similar numerical operations? Why should a mathematical operation be chosen to represent a solution to a problem? How can subtraction be extended into multiplication?	How can I represent a shape as a 2 or 3 dimensional figure? How can I record characteristics of geometric shapes? What is the relationship among geometric shapes or patterns? How can I identify symmetry? How can we quantify an event or data without whole numbers?	How can I record or describe the conduction of an experiment? Why is it important to document an experiment? What is the purpose in developing & documenting outcomes?	Essential Questions
Assessment Strategies Formative & Summative	Everyday Math assessments Observations: trading coins, making change February assessment "Secret Messages"	Everyday Math assessments Observations March assessment	Everyday Math assessments Observations April assessment	Everyday Math assessments Observations Shape designs May assessment	Everyday Math assessments Observations Experiments Final assessment	Assessment Strategies Formative & Summative

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Instructional Skills and Strategies	**Calendar Activities:** predict patterns, trade coins, secret messages, track & graph days, ordinal numbers to 100 **Instructional Skills and Strategies:** Identify and count coins Match coin sets with values Compare and order sets Estimate values Make change Solve riddles and word problems with real-world situations involving money Switch counting	**Calendar Activities:** predict patterns, trade coins, track & graph days, ordinal numbers to 100 **Instructional Skills and Strategies:** Add tens, count on, regroup, use models to add, mental math, use pictures to add, organize numbers to add Find patterns in numbers Skip count by 5s, 10s, and 100s Write numbers to 1000 in expanded form Use place value and properties of operations to add up to four 2-digit numbers	**Calendar Activities:** 3,4,5,6 patterns, trade money, tally days, ordinal numbers to 100 **Instructional Skills and Strategies:** Subtract tens, count back, regroup, use models to subtract, use pictures to subtract, organize numbers to subtract, mental math Add and subtract within 100 Count within 1000 Use symbols to compare numbers Explain why addition and subtraction strategies work	**Calendar Activities:** fraction patterns and parts, tally, count down, trade money, place value **Instructional Skills and Strategies:** Recognize, draw and construct shapes (e.g. triangles, polygons, quadrilaterals, pentagons, hexagons and cubes) Partition rectangles into rows and columns Partition circles into two, three, or four equal shares (e.g. halves, thirds, half of, a third of) Explore quilt shapes Manipulate shapes (e.g. slide, flip, reverse) Explore symmetry with equal parts Work with breaking apart whole to fraction (i.e. eat pie/pizza) Utilize deductive and inductive reasoning to solve problems	**Calendar Activities:** patterns, numbers, trades, place value **Instructional Skills and Strategies:** Experiment Develop patterns Trade numbers Work with place value Number games	Instructional Skills and Strategies
Primary Resources	Everyday Math Box & Bag It Math Meacham's Calendar Patterns Secret Messages Stampers and sentences strips Coin sets **Literature:** The Dollar Word Book	Workmats & manipulatives Everyday Math Tens models Box It and Bag It Math Meacham's Calendar Patterns	Workmats & manipulatives Everyday Math Tens models Box It and Bag It Math Meacham's Calendar Patterns	Everyday Math Quilt squares and supplies Box and Bag it Math Meacham's Calendar **Literature:** Quilting books	Everyday Math Quilt squares and supplies Box and Bag it Math Meacham's Calendar	Primary Resources
Links with CCSS/ NCTM	CCSS 2.MD NCTM Problem solving, Communications, Connections and Representation	CCSS 2.NBT NCTM Numbers and Operation Standard, Algebra, Problem Solving, Communications, Connections, Representation	CCSS 2.NBT, 2.OA NCTM Numbers and Operation Standard, Algebra, Problem Solving, Communications, Connections, Representation	CCSS 2.G NCTM Algebra, Geometry, Measurement, Problem Solving, Communications, Connections, Representation	NCTM Algebra NCTM Data analysis and probability, Problem Solving, Reasoning and Proof, Communications, Connections, Representation	Links with CCSS/NCTM