



Lady Liberty Academy Charter School

2nd Grade Math Curriculum

Duration	Content	Skills/Check for Prior Knowledge	Vocabulary	Assessment	Standards	Resources	Essential Questions	Math Projects
First 2 weeks	Addition and Subtraction math facts from 0-20	<ul style="list-style-type: none"> On a daily basis, students will practice their factangles from 0-20. Adding and subtracting 2 digits to 1 digit (18-5=13), Mental Math and 3 digit alignment or Problems should be given in both vertical or horizontal forms. 	<ul style="list-style-type: none"> Less than in all much more altogether Total Sum Addend Plus Minus Difference Fewer Left Deduct Remove Add Subtract Greater than 	<ul style="list-style-type: none"> Beginning of the year Math Fact assessment from 0-20 on addition and subtraction. Timed math fact assessment/drills both written and oral. Ultimate 2nd Grade Snapshots Bundle- Math-CCSS NJ DOE Model Curriculum Assessments- NJ Dept. of Education 	2.A.2.2. (Application) Solve open addition and subtraction sentences with one unknown (x) using numbers equal to or less than 20.	<ul style="list-style-type: none"> www.mathcats.com www.math-aids.com Dadsworksheets.com Mathfactcafe.com http://practicalpages.wordpress.com Donnayoung.org/math/math-facts.htm www.teacherspayteachers.com http://www.sheppardsoftware.com/mathgames/fruitshoot/fruitshoot_subtraction.htm 	<ol style="list-style-type: none"> How does knowing addition and subtraction facts help me in the real world? What strategies do I use to find sums or differences between digits? How do I take apart and recombine numbers in a variety of ways for finding sums and differences? 	<ol style="list-style-type: none"> "Math About Me" Poster Fact Family Houses Fact Family trees, flowers, butterflies, kites, etc.
1 week	Place Value Numbers with 2 digits-> tens and ones	<ul style="list-style-type: none"> How many tens and how many ones are in a number? Showing what a ten is by using base ten rods and ones through using unit cubes. Presenting place value in various forms such as: expanded, standard, word, and model forms. Compare 2 digit numbers using $<$, $>$, or $=$. 	<ul style="list-style-type: none"> Tens Ones Less than Equal to More than Greater than Place value Unit Rod Number form Standard form Expanded form Word form 	<ul style="list-style-type: none"> Ultimate 2nd Grade Snapshots Bundle- Math-CCSS Singapore Math in Focus Place Value 2 Digit Math Assessment Mastery Connect Assessment NJ DOE Model Curriculum Assessments NJ Dept. of Education 	2.N.1.1. Comprehension Read, write, count, and sequence numerals to 100. 2.A.2.1. Comprehension Use concepts of equal to, greater than, and less than to compare numbers (0-100). 2.N.3.1. (Application) Solve addition and subtraction problems up to 100 in context.	<ul style="list-style-type: none"> www.education.com www.math-play.com/place-value-games.html www.math-aids.com/place_value www.Youtube.com (Rockin' the Standards-Place Value Rap) http://www.2nd-grade-math-salamanders.com/ 	<ol style="list-style-type: none"> How are place value patterns repeated in large numbers? How do I demonstrate the relationship between numbers, quantities, and place value for numbers up to 100? How can I use models, words, numbers, and expanded formats to order and compare numbers? 	<ol style="list-style-type: none"> Wanted Place Value Poster How much is my name worth?-Using base ten rods and unit cubes. Place Value House- Using 2 Digit numbers



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1 week	2 digit addition and subtraction without regrouping.	<ul style="list-style-type: none"> •Students can add up to 2-digit numbers.(In forms of Horizontal, vertical, and word form problems without regrouping). •Students can subtract 2 digit numbers.(In forms of Horizontal, vertical, and word form problems without regrouping) •Students are well aware of the place value of tens and ones between 2 digit numbers while adding and subtracting. 	<ul style="list-style-type: none"> •Tens •Ones •Less than •in all •much more •altogether •Total •Sum •Addend •Plus •Minus •Difference •Fewer •Left •Deduct •Remove •Add •Subtract •Place Value 	<ul style="list-style-type: none"> •Math in Focus Assessments (Background Knowledge) •Mastery Connect •Ultimate 2nd Grade Snapshots Bundle- Math-CCSS •NJ DOE Model Curriculum Assessments- NJ Dept. of Education 	<p>2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.</p> <p>2.NBT.6 Add up to four two-digit numbers using strategies based on place value and properties of operations.</p> <p>2.NBT.9 Explain why addition and subtraction strategies work, using place value and the properties of operations.</p>	<p>(2 & 3 Digit Addition and Subtraction in 2nd Grade)</p> <p>http://www.waterbury.k12.ct.us/userfiles/-4/my%20files/elementary%20ccssm/2/2ndaddingandsubtracting2-.pdf?id=533636</p> <p>www.math-aids.com</p> <p>K-6thinkcentral.com</p> <p>http://www.sheppardsoftware.com/mathgames/fruitshoot/fruitshoot_subtraction.htm</p>	<ol style="list-style-type: none"> How do I solve 2 digit number problems without regrouping? What are the steps for addition/subtraction without regrouping? How do I add four 2 digit numbers? How can I add tens and then ones to solve addition problems for two-digit numbers? 	<ol style="list-style-type: none"> Scooping up Double Digit Addition Ice cream cones 2 digit addition & subtraction numbers problems on graph paper. “How to” book on adding & subtracting 2 digit numbers. 2 digit math story/word problems
1 week	2 digit addition and subtraction with regrouping.	<ul style="list-style-type: none"> •Students can add up to 2-digit numbers.(In forms of Horizontal, vertical, and word form problems with regrouping) •Students can subtract 2 digit numbers.(In forms of Horizontal, vertical, and word form problems with regrouping) •Students are well aware of the place value of tens and ones between 2 digit numbers while adding and subtracting. 	<ul style="list-style-type: none"> •Tens •Ones •Less than •in all •altogether •Total •Sum •Addend •Plus •Minus •Difference •Fewer •Left •Deduct •Remove •Add •Subtract •Place Value •Borrow •Carry over 	<ul style="list-style-type: none"> •Math in Focus Assessments (Background Knowledge) •Mastery Connect •Ultimate 2nd Grade Snapshots Bundle- Math-CCSS •NJ DOE Model Curriculum Assessments- NJ Dept. of Education 	<p>2.NBT.5 Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction .</p> <p>2.NBT.6 Add up to four two-digit numbers using strategies based on place value and properties of operations.</p> <p>2.NBT.9 Explain why addition and subtraction strategies work, using place value and the properties of operations.</p>	<p>2 & 3 Digit Addition and Subtraction in 2nd Grade)</p> <p>http://www.waterbury.k12.ct.us/userfiles/-4/my%20files/elementary%20ccssm/2/2ndaddingandsubtracting2-.pdf?id=533636</p> <p>www.math-aids.com</p> <p>K-6thinkcentral.com</p> <p>http://www.sheppardsoftware.com/mathgames/fruitshoot/fruitshoot_subtraction.htm</p> <p>Double Digit Addition Rap</p> <p>http://</p>	<ol style="list-style-type: none"> When do we regroup in addition and subtraction? What are strategies to regroup in addition and subtraction? What are the steps for addition/subtraction with regrouping? How do I add four 2 digit numbers? How can I add tens and then ones to solve addition problems for two-digit numbers? 	<ol style="list-style-type: none"> 2 digit addition & subtraction number problems on graph paper. “How to” book on adding & subtracting 2 digit numbers with regrouping. 2 digit math story/word problems



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2 weeks	Place Value up to 1,000	<ul style="list-style-type: none"> •Students will be able to understand and use the hundreds, tens, and ones place value. •Students will be able to show that 10 bundles of tens are called a "hundred." •Students will be able to count to 1,000 by 1's, 5's, 10's and 100's. •Students will be able to write numbers in 100's in various ways/ •Students can compare three digit numbers using $<$, $>$, and $=$. •Students must be able to distinguish place value modes cube=1,000 units, Flat=100 units, rod=10 units, a unit cube=1 unit. 	<ul style="list-style-type: none"> •Hundreds •Tens •Ones •Flat •Base ten rod •Unit •Place value •Bundle •Less than •Equal to •More than •Greater than •Number form •Standard form •Expanded form •Word form 	<ul style="list-style-type: none"> •NJ DOE Model Curriculum Assessments- NJ Dept. of Education •Ultimate 2nd Grade Snapshots Bundle- Math-CCS •Singapore Math in Focus Place Value •Mastery Connect Assessment 	<p>CCSS.Math.Content.2.NBT.A.1 Understand that the three digits of a three-digit number represent amounts of hundreds, tens, and ones; e.g., 706 equals 7 hundreds, 0 tens, and 6 ones.</p> <p>CCSS.Math.Content.2.NBT.A.1.a 100 can be thought of as a bundle of ten tens — called a "hundred."</p> <p>CCSS.Math.Content.2.NBT.A.1.b The numbers 100, 200, 300, 400, 500, 600, 700, 800, 900 refer to one, two, three, four, five, six, seven, eight, or nine hundreds.</p> <p>CCSS.Math.Content.2.NBT.A.2 Count within 1000; skip-count by 5s, 10s, and 100s.</p> <p>CCSS.Math.Content.2.NBT.A.3 Read and write numbers to 1000 using base-ten numerals, number names, and expanded form.</p> <p>CCSS.Math.Content.2.NBT.A.4 Compare two three-digit numbers based on meanings of the hundreds, tens, and ones digits, using $>$, $=$, and $<$ symbols to record the results of comparisons.</p>	<p>Thinkcentral k-6 website</p> <p>Math-aids.com</p> <p>http://www.math-play.com/place-value-games.html</p> <p>Go math Academy</p> <p>http://www.gamequarium.com/placevalue.html</p> <p>http://mrunusbaum.com/placevaluepirates/</p> <p>http://www.2nd-grade-math-salamanders.com/</p>	<ol style="list-style-type: none"> 1. How can I represent the expanded notion of 3-digit numbers using symbols and concrete tools? 2. How can I use 3 digit numbers as models, words, and expanded formats to order and compare numbers? 3. How does understanding place value help you solve 3 digit addition and subtraction problems? 4. How are place value patterns repeated in large numbers? 	<ul style="list-style-type: none"> •Place Value Math Monster •"Wanted"/ Missing 3 Digit Number Poster. •3 Digit Place Value Neighborhood. •Place Value Snack Sort



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1 week	3 Digit addition and subtraction <i>without</i> regrouping.	<ul style="list-style-type: none"> •Students can add up to 3-digit numbers.(In forms of Horizontal, vertical, and word form problems without regrouping). •Students can subtract 3 digit numbers.(In forms of Horizontal, vertical, and word form problems without regrouping) •Students are well aware of the place value of hundred, tens, and ones between 3 digit numbers while adding and subtracting. 	<ul style="list-style-type: none"> •Tens •Hundreds •Ones •Less than •in all •much more •altogether •Total •Sum •Addend •Plus •Minus •Difference •Fewer •Left •Deduct •Remove •Add •Subtract •Place Value 	<ul style="list-style-type: none"> •Math in Focus Assessments (Background Knowledge) •Mastery Connect •Ultimate 2nd Grade Snapshots Bundle- Math-CCSS •NJ DOE Model Curriculum Assessments- NJ Dept. of Education 	<p>CCSS.Math.Content.2.NBT.B.5Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.</p> <p>CCSS.Math.Content.2.NBT.B.7 Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method.</p> <p>Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.</p> <p>CCSS.Math.Content.2.NBT.B.9Explain why addition and subtraction strategies work, using place value and the properties of operations.</p>	<p>http://www.coolmath-games.com/numbermonster-addition/numbermonster-addition-2n3digit.htm</p> <p>http://www.math-play.com/Addition-Game.html</p> <p>Youtube videos:</p> <p>http://www.youtube.com/watch?v=v1DooDwX0Vw</p> <p>http://www.youtube.com/watch?v=NhKi6lY4FJE</p> <p>http://www.2nd-grade-math-salamanders.com/</p>	<ol style="list-style-type: none"> How do I solve 3 digit number problems without regrouping? What are the steps for addition/ subtraction without regrouping? How do I add four 3 digit numbers? How can I add the hundreds, tens, and then ones to solve addition problems for three-digit numbers? 	<ol style="list-style-type: none"> Graph paper 3 digit addition and subtraction w/o regrouping. “How to” Book on 3 digit subtraction and addition w/0 regrouping.



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2 weeks	3 Digit addition and subtraction <i>with</i> regrouping	<ul style="list-style-type: none"> •Students can add up to 3-digit numbers.(In forms of Horizontal, vertical, and word form problems with regrouping) •Students can subtract 3 digit numbers.(In forms of Horizontal, vertical, and word form problems with regrouping) •Students are well aware of the place value of hundred, tens, and ones between 3 digit numbers while adding and subtracting. 	<ul style="list-style-type: none"> •Hundreds •Tens •Ones •Less than •in all •altogether •Total •Sum •Addend •Plus •Minus •Difference •Fewer •Left •Deduct •Remove •Add •Subtract •Place Value •Regroup •Borrow •Carry over 	<ul style="list-style-type: none"> •Math in Focus Assessments (Background Knowledge) •Mastery Connect •Ultimate 2nd Grade Snapshots Bundle- Math-CCSS •NJ DOE Model Curriculum Assessments- NJ Dept. of Education 	<p>CCSS.Math.Content.2.NBT.B.5Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction.</p> <p>CCSS.Math.Content.2.NBT.B.7 Add and subtract within 1000, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method.</p> <p>Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones; and sometimes it is necessary to compose or decompose tens or hundreds.</p> <p>CCSS.Math.Content.2.NBT.B.9Explain why addition and subtraction strategies work, using place value and the properties of operations.</p>	<p>http://www.softschools.com/math/addition/3_digit_addition/3_digit_addition_with_regrouping/</p> <p>http://www.pinterest.com/msharkey2/3-digit-addition-and-subtraction/</p> <p>http://www.ixl.com/promo?partner=google&campaign=1244&adGroup=regrouping&clid=CN3Dx6ng-b8CFUoS7Aod8DAAOg</p> <p>Thinkcentral k-6</p> <p>Math-aids.com</p> <p>Abyca.com</p> <p>http://www.coolmath4kids.com/subtraction/07-subtraction-lesson-three-digit-numbers-01.html</p> <p>YouTube videos</p> <p>http://www.youtube.com/watch?v=MUs4Lfujgco</p> <p>http://www.youtube.com/watch?v=BkzoUfvAXDU</p> <p>Regrouping Song http://</p>	<ol style="list-style-type: none"> 1. When do we regroup in addition and subtraction? 2. What are strategies to regroup in addition and subtraction? 3. What are the steps for addition/ subtraction with regrouping? 4. How do I add and subtract 3 digit numbers? 5. How can I add the hundreds, tens, and then ones to solve addition problems for three-digit numbers? 	<ol style="list-style-type: none"> 1. Graph paper 3 digit addition and subtraction w/ regrouping. 2. “How to” Book on 3 digit subtraction and addition w/ regrouping. 3. Math comic strip on regrouping 3 digit numbers through addition and subtraction.



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2 weeks 1st week for rounding and estimating numbers only. 2nd week - using estimating within addition and subtraction.	Estimation and Rounding 2 digit numbers. Also utilizing estimating and rounding for addition and subtraction.	<ul style="list-style-type: none"> •Students will be able to round 2 digit numbers to the nearest tens. •Students will be able to round 2 digit numbers in order to add or subtract to receive an estimated answer. •Students will be able to utilize rounding as a strategy to check their answers and work. 	<ul style="list-style-type: none"> •Estimate •Round •Nearest tens •Increase •Zero •Less than •in all •much more •altogether •Total •Sum •Addend •Plus •Minus •Difference •Fewer •Left •Deduct •Remove •Add •Subtract •Greater than •ones 	<ul style="list-style-type: none"> •Math in Focus Assessments (Background Knowledge) •Mastery Connect •Ultimate 2nd Grade Snapshots Bundle- Math-CCSS •NJ DOE Model Curriculum Assessments- NJ Dept. of Education 	CCSS.Math.Content.2.NBT.B.8 Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900. CCSS.Math.Content.2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations.	Math-aids.com Thinkcentral k-6 Teacherspay Teachers.com http://www.sheppardsoftware.com/mathgames/menus/roundestimate.htm http://www.onlinemathlearning.com/rounding-games.html Rounding RAP	<ol style="list-style-type: none"> 1. How does rounding and estimation strategies assist in more efficient and accurate computation? 2. How do we use patterns to solve problems? 3. How can I estimate the answers for operations involving two digit numbers? 	<ol style="list-style-type: none"> 1. Rounding Number Line Kinesthetic / Movement Game 2. Number Line sentence strip projects (Rounding) 3. Rounding Rollercoasters
2 weeks 1st week for rounding and estimating numbers only. 2nd week - using estimating within addition and subtraction.	Estimation and Rounding 3 digit numbers. Also utilizing estimating and rounding for addition and subtraction.	<ul style="list-style-type: none"> •Students will be able to round 3 digit numbers to the nearest tens and hundreds. •Students will be able to round 3 digit numbers in order to add or subtract to receive an estimated answer. •Students will be able to utilize rounding as a strategy to check their answers and work. 	<ul style="list-style-type: none"> •Estimate •Round •Nearest tens •Nearest hundred •Increase •Zero •Less than •in all •much more •altogether •Total •Sum •Addend •Plus •Minus •Difference •Fewer •Left •Deduct •Remove •Add •Subtract •Greater than •ones 	<ul style="list-style-type: none"> •Math in Focus Assessments (Background Knowledge) •Mastery Connect •Ultimate 2nd Grade Snapshots Bundle- Math-CCSS •NJ DOE Model Curriculum Assessments- NJ Dept. of Education 	CCSS.Math.Content.2.NBT.B.8 Mentally add 10 or 100 to a given number 100-900, and mentally subtract 10 or 100 from a given number 100-900. CCSS.Math.Content.2.NBT.B.9 Explain why addition and subtraction strategies work, using place value and the properties of operations.	Math-aids.com Thinkcentral k-6 Teacherspay Teachers.com http://www.sheppardsoftware.com/mathgames/menus/roundestimate.htm http://www.onlinemathlearning.com/rounding-games.html Rounding RAP	<ol style="list-style-type: none"> 1. How does rounding and estimation strategies assist in more efficient and accurate computation? 2. How do we use patterns to solve problems? 3. How can I estimate the answers for operations involving three digit numbers? 	<ol style="list-style-type: none"> 1. Rounding Number Line Kinesthetic / Movement Game 2. Number Line sentence strip projects (Rounding) 3. Rounding Rollercoasters



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2 weeks 1 st week- review of one step word problems 2 nd week- two-step problems	Adding and Subtracting 1 and 2 Step Word Problems	<ul style="list-style-type: none"> •Recognizing key words/clues to choose a specific math strategy to solve. •Reading the word problem carefully and understanding the question the problem is asking. Identifying a math strategy such as: addition, subtraction, multiplication, division, etc. •Choosing various strategies such as: drawing illustrations, visualizing, using numbers, tally marks, etc. •Ensuring to solve the problem in the sequence of what is stating and being able to support an answer their evidence of a math strategy. 	<ul style="list-style-type: none"> •Less than •in all •How much more? •altogether •Total •Sum •Addend •Plus •Minus •Difference •Fewer •Left •Deduct •Remove •Add •Subtract •Greater than 	<ul style="list-style-type: none"> •Math in Focus Assessments (Background Knowledge) •Mastery Connect •Ultimate 2nd Grade Snapshots Bundle- Math-CCSS •NJ DOE Model Curriculum Assessments- NJ Dept. of Education 	CCSS.Math.Content.2.OA.A.1 Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem	http://www.math-aids.com/Word_Problems/ http://www.dadsworksheets.com/v1/Worksheets/Word%20Problems.html http://www.k5learning.com/free-math-worksheets/second-grade-2/word-problems http://www.2nd-grade-math-salamanders.com/ K-6thinkcentral	<ol style="list-style-type: none"> 1. How do I recognize what strategy to use for a specific problem? 2. Which words are key words to help me choose a strategy? 3. How can I decompose and break down a word problem that has multi-steps and various questions? 	<ul style="list-style-type: none"> •Word Problem/ Math Stories •Interactive Math Journals
2 weeks 1 st week- counting coins 2 nd week- counting bills	Money	Recognize bills and coins and their respective values <ul style="list-style-type: none"> • Use the decimal point to separate dollars and cents • Exchange dollars for cents and vice versa • Compare amounts of money using tables • Use bar models to solve real-world problems involving addition and Subtraction of money. 	<ul style="list-style-type: none"> •Bills •Coins •Amount •Price •Decimal point •Place value •Cents •Dollars •Total •Sum •Difference •Change •Dollar sign •Budget •Cash •Less than •Greater than •Worth 	<ul style="list-style-type: none"> •Math in Focus Assessments (Background Knowledge) •Mastery Connect •Ultimate 2nd Grade Snapshots Bundle- Math-CCSS •NJ DOE Model Curriculum Assessments- NJ Dept. of Education 	CCSS.Math.Content.2.MD.C.8 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using \$ and ¢ symbols appropriately. Example: If you have 2 dimes and 3 pennies, how many cents do you have?	http://www.2nd-grade-math-salamanders.com/ http://worksheets.theteacherscorner.net/make-your-own/money-worksheets/ http://www.math-aids.com/Money/ http://www.mathfactcafe.com/worksheet/money/	<ol style="list-style-type: none"> 1).How can I represent the same amount of money using different combinations of coins and bills? 2).How can I model and solve problems by representing, adding and subtracting amounts of money? 3). Why is it important to learn how to count money? 	<ul style="list-style-type: none"> •Creating your own dollar bill/coin. •Menu at a restaurant/store with prices. •2nd Grade Budget Project •If I had 100 dollars writing prompt...



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1 week	Metric Measurement	<ul style="list-style-type: none"> • Measure and compare how long and how tall things are using metric measurements (centimeter and meter) • Draw a line of a given length • Use model drawing to solve real-world measurement problems. 	<ul style="list-style-type: none"> •Unit •Measure •Meter •Centimeter •Tall •Short •Long •Wide •Height •Width •Length •Estimate •Ruler •Meter stick 	<ul style="list-style-type: none"> •Math in Focus Assessments (Background Knowledge) •Mastery Connect •Ultimate 2nd Grade Snapshots Bundle- Math-CCSS •NJ DOE Model Curriculum Assessments- NJ Dept. of Education 	<p>CCSS.Math.Content.2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.</p> <p>CCSS.Math.Content.2.MD.A.2 Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.</p>	<p>http://www.2nd-grade-math-salamanders.com/</p> <p>http://www.homeschoolmath.net/worksheets/measuring.php</p> <p>http://www.math-aids.com/Measurement/Converting_Metric.html</p> <p>K-6 Thinkcentral</p>	<ol style="list-style-type: none"> 1). How do you use weight and measurement in your life? 2).What tools and units are used to measure the attributes of an object? 3).How are the units of measure within a standard system related? 4).How do you decide which unit of measurement to use? 	<ol style="list-style-type: none"> 1. “Metric Me” Measurement Project with our bodies. http://www.teacherspayteachers.com/Product/Metric-Me-285428 2. Scavenger Hunt/ “Measure Around the Room” with meter sticks.
1 week	Customary Unit	<ul style="list-style-type: none"> • Use a ruler to measure, compare and estimate lengths of objects in customary units of measurement (feet and inches) • Solve one and two-step problems involving length. 	<ul style="list-style-type: none"> •Tall •Short •Long •Wide •Height •Width •Length •Inch •Foot •Yard •Estimate •Unit •Measure •Yard stick 	<ul style="list-style-type: none"> •Math in Focus Assessments (Background Knowledge) •Mastery Connect •Ultimate 2nd Grade Snapshots Bundle- Math-CCSS •NJ DOE Model Curriculum Assessments- NJ Dept. of Education 	<p>CCSS.Math.Content.2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.</p> <p>CCSS.Math.Content.2.MD.A.2 Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.</p>	<p>http://www.2nd-grade-math-salamanders.com/</p> <p>http://www.homeschoolmath.net/worksheets/measuring.php</p> <p>http://www.mathworksheets4kids.com/customary.html</p> <p>http://www.worksheetplace.com/index.php?function=DisplayCategory&showCategory=Y&links=2&id=301&link1=40&link2=301</p>	<ol style="list-style-type: none"> 1). How do you use weight and measurement in your life? 2).What tools and units are used to measure the attributes of an object? 3).How are the units of measure within a standard system related? 4).How do you decide which unit of measurement to use? 	<ol style="list-style-type: none"> 1. Creating “Student Rulers.” 2. “Measuring Around the Room.” 3). Walking in “Feet” project. 4). Inchworms 5). Measuring with Gummy worms.



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1 week	Odd and Even Numbers	<ul style="list-style-type: none"> Differentiating numbers that are even and odd through number recognition. Acknowledging that even numbers are grouped as equal and odd numbers are unequal groups. Adding 2 even numbers, you receive an even number. Adding 2 odd numbers, you receive an even number. Adding an even and odd number, you receive an odd number. 	<ul style="list-style-type: none"> Odd Even Digits Numbers Groups Equal Count 	<ul style="list-style-type: none"> Math in Focus Assessments (Background Knowledge) Mastery Connect Ultimate 2nd Grade Snapshots Bundle-Math-CCSS NJ DOE Model Curriculum Assessments- NJ Dept. of Education 	<p>CCSS.Math.Content.2.OA.C.3 Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.</p>	<p>http://www.2nd-grade-math-salamanders.com/</p> <p>http://www.mathsisfun.com/numbers/even-odd.html</p> <p>http://www.aaamath.com/g25a2-evenodd.html</p> <p>http://www.brainpopjr.com/math/numbersense/evenandodd/preview.weml</p> <p>Math-aids.com</p>	<ol style="list-style-type: none"> Why is it important to learn odd numbers and even numbers? How can we recognize the difference between an odd number and an even number? 	<ol style="list-style-type: none"> "Even Steven" and "Odd Todd" "Craft
2 weeks 1 st week- Times tables by 0, 1, and 2 2 nd week- Times tables by 5 and 10	Multiplication Tables of 0, 1, 2, 5, 10	<ul style="list-style-type: none"> Skip counting by 2, 5 and 10 Use dot paper as concrete representation of multiplication facts of 2, 5 and 10 to form arrays. Identify related multiplication facts Learn that multiplication involves the concept of equal groups Create multiplication stories and sentences about pictures Use equal groups and repeated addition to multiply. 	<ul style="list-style-type: none"> Repeated addition Equal groups In all Array Product Total Groups of Times Multiple factor 	<ul style="list-style-type: none"> Math in Focus Assessments (Background Knowledge) Mastery Connect Ultimate 2nd Grade Snapshots Bundle-Math-CCSS NJ DOE Model Curriculum Assessments- NJ Dept. of Education 	<p>CCSS.Math.Content.2.OA.C.3 Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.</p> <p>CCSS.Math.Content.2.OA.C.4 Use addition to find the total number of objects arranged 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.</p>	<p>http://www.2nd-grade-math-salamanders.com/</p>	<ol style="list-style-type: none"> What are the mathematical properties that govern addition and multiplication? How would you use them? How do you know if a number is divisible by 0, 1, 2, 5, and 10? How can multiples be used to solve problems? What strategies aid in mastering multiplication and division facts? How are repeated addition and multiplication related? 	<ol style="list-style-type: none"> Multiplication City Tic tac toe Multiplication Facts 4 different ways to multiply poster Andy Waldrof Multiplication Art Math Interactive folder/ notebook



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2 weeks 1 st week- 3 times tables 2 nd week- four times tables	Multiplication Tables by 3 and 4	<ul style="list-style-type: none"> Use skip-counting and dot paper strategies as concrete representations To learn the multiplication facts for 3 and 4. Use dot paper as concrete representation of multiplication facts of 3 and 4 to form arrays. Use the inverse relationship of multiplication and division to write division sentences from related multiplication sentences. Learn that multiplication involves the concept of equal groups Create multiplication stories and sentences about pictures Use equal groups and repeated addition to multiply. 	<ul style="list-style-type: none"> Repeated addition Equal groups In all Array Product Total Groups of Times Multiple factor 	<ul style="list-style-type: none"> Math in Focus Assessments (Background Knowledge) Mastery Connect Ultimate 2nd Grade Snapshots Bundle- Math-CCSS NJ DOE Model Curriculum Assessments- NJ Dept. of Education 	<p>CCSS.Math.Content.2.OA.C.3 Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.</p> <p>CCSS.Math.Content.2.OA.C.4 Use addition to find the total number of objects arranged 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.</p>	<p>http://www.2nd-grade-math-salamanders.com/</p>	<ol style="list-style-type: none"> What are the mathematical properties that govern addition and multiplication? How would you use them? How do you know if a number is divisible by 3 and 4? How can multiples be used to solve problems? What strategies aid in mastering multiplication and division facts? How are repeated addition and multiplication related? 	<ol style="list-style-type: none"> Real-life Arrays Project. Lego building arrays Math Interactive folder/ notebook Monster Math (Multiplication) In and Out Math with Robot



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2 weeks 1 st week- Numerical operations 2 nd week-word problems	Division	<ul style="list-style-type: none"> •Divide to share equally. <ul style="list-style-type: none"> • Divide by repeated subtraction of equal groups. Draw a picture Repeated Subtraction Number line Inverse Multiplication fact operation. 	<ul style="list-style-type: none"> •Share •Equal •Divide •Repeated subtraction •Divisor •Dividend •Quotient 	<ul style="list-style-type: none"> •Math in Focus Assessments (Background Knowledge) •Mastery Connect •Ultimate 2nd Grade Snapshots Bundle- Math-CCSS •NJ DOE Model Curriculum Assessments- NJ Dept. of Education 	CCSS.Math.Content.2.OA.C.4 Use addition to find the total number of objects arranged 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.	http://www.2nd-grade-math-salamanders.com/ http://www.math-aids.com/Division/ http://www.math-drills.com/division.shtml http://www.k5learning.com/free-math-worksheets/third-grade-3/division Math-aids.com	1) How can I use what I know about repeated subtraction, equal sharing, and forming equal groups to solve division problems? 2). How does my knowledge about multiplication facts help me to solve problems?	1). M&M Division Teachers pay teachers.com 2). Different ways to divide poster
1 week	Fractions	<ul style="list-style-type: none"> •Dividing shapes into equal parts. •Recognizing the numerator from the denominator. •Read, write and identify unit fractions for halves, thirds and fourths •Partitioning shapes into equal parts independently. •Adding fractions with common denominators. 	<ul style="list-style-type: none"> •Whole •Part •Denominator •Numerator •Equal part •Share •One-fourth •One-third •One-half •Partition •divide 	<ul style="list-style-type: none"> •Math in Focus Assessments (Background Knowledge) •Mastery Connect •Ultimate 2nd Grade Snapshots Bundle- Math-CCSS •NJ DOE Model Curriculum Assessments- NJ Dept. of Education 	CCSS.Math.Content.2.G.A.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them. CCSS.Math.Content.2.G.A.3 Partition circles and rectangles into two, three, or four equal shares, describe the shares using the words halves, thirds, half of, a third of, etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.	http://www.2nd-grade-math-salamanders.com/ http://www.math-aids.com/Fractions/ http://www.math-drills.com/fractions.shtml http://www.mathworksheets4kids.com/fractions.html	1).How can I use fractions in real life? 2).How do I identify the whole? 3).How do I use concrete materials and drawings to understand and show understanding of fractions (from 1/12ths to 1/2)? 4). How do I explain the meaning of a fraction and its numerator and denominator, and use my understanding to represent and compare fractions? 5). How do I explain how changing the size of the whole affects the size or amount of a fraction?	1. Fraction Pizzas 2. Fraction Flip books 3. Fraction Layered Wall 4. Fraction Sandwich/cookie 5. Fraction-pillar 6. Fraction Gum ball machine



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2 weeks 1 st week-hour, half an hour, 15 minutes 2 nd week-quarter to, half past, quarter after, elapsed time	Time	<ul style="list-style-type: none"> Show and tell time in hours and minutes Use A.M. and P.M. to show morning, afternoon or night Order events by time and determine elapsed time (hour and half hour). 	<ul style="list-style-type: none"> Minutes Hour Hands Seconds Time O'clock Quarter to Quarter after Half past Noon Half an hour Clock Analog Digital A.M./P.M. Morning, evening, & afternoon Elapsed time/ time has passed 	<ul style="list-style-type: none"> Math in Focus Assessments (Background Knowledge) Mastery Connect Ultimate 2nd Grade Snapshots Bundle- Math-CCSS NJ DOE Model Curriculum Assessments- NJ Dept. of Education 	CCSS.Math.Content.2.MD.C.7 Tell and write time from analog and digital clocks to the nearest five minutes, using a.m. and p.m	http://www.2nd-grade-math-salamanders.com/ http://www.k5learning.com/free-math-worksheets/second-grade-2/telling-time http://www.math-aids.com/Time/ http://www.mathfactcafe.com/worksheet/time/ http://worksheets.theteacherscorner.net/make-your-own/telling-time/ http://www.homeschoolmath.net/worksheets/clock.php	<ol style="list-style-type: none"> What is the difference between length of time and time of day? What tools and units are used to measure the attributes of time? Why is telling time important? How do different units of time (minutes, day, weeks) relate to each other? How do I use a clock to tell time to the nearest quarter hour? How can I tell time using both digital and analog clock faces? How do I determine the duration of time intervals in hours? How can I tell time to the nearest quarter hour? How do I determine how much time has passed between events? 	<ol style="list-style-type: none"> Student Craft clocks "Elapsed time" Math books Student watches Daily Schedule Poster Time Machine



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Duration	Content	Skills/Check for Prior Knowledge	Vocabulary	Assessments	Standards	Resources	Essential Questions	Projects
1 week	Picture and Bar Graphs	<ul style="list-style-type: none"> •Read, analyze and interpret picture graphs. • Make picture graphs and solve real-world problems using picture graphs. 	<ul style="list-style-type: none"> •Key •Symbol •Total •Greater than •Less than •Least •Most •Bars •Pictures •Lines •Graph •Chart •Table •Title •Compare •Horizontal •Vertical •Scale •Range 	<ul style="list-style-type: none"> •Math in Focus Assessments (Background Knowledge) •Mastery Connect •Ultimate 2nd Grade Snapshots Bundle-Math-CCSS •NJ DOE Model Curriculum Assessments- NJ Dept. of Education 	<p>CCSS.Math.Content.2.MD.D.9 Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.</p> <p>CCSS.Math.Content.2.MD.D.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems¹ using information presented in a bar graph.</p>	<p>http://www.2nd-grade-math-salamanders.com/</p> <p>http://www.commoncoresheets.com/BarGraphs.php</p> <p>http://www.math4children.com/Grade2/worksheets/</p> <p>http://www.kidzsheets.com/2012/09/Secondgrade-Bargraph1.html</p> <p>http://www.education.com/worksheets/second-grade/graphing-data/</p> <p>http://www.greatschools.org/worksheets-activities/slideshows/6378-second-grade-math-worksheets-slideshow.gs?page=3</p> <p>K-6thinkcentral</p>	<ol style="list-style-type: none"> 1). Why do we have to learn how to read different types of graphs? 2). How can we read a legend/key of a graph and why is it important? 3). What does graphing do with data? 4). What are the differences between line plots, bar graphs, pie graphs, and pictographs? 	<ol style="list-style-type: none"> 1). 2nd grade and Middle School Survey and Data Graphs 2). My favorite interests graph 3). Skittle/Luck Charms Graph 4). Graphing Party



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Duration	Content	Skills/Check for Prior Knowledge	Vocabulary	Assessments	Standards	Resources	Essential Questions	Projects
1 week	Shapes and Lines	Recognize, draw, identify and describe parts of lines and curves	<ul style="list-style-type: none"> •Line •Curves •Letters •Numbers •Shapes 	<ul style="list-style-type: none"> •Math in Focus Assessments (Background Knowledge) •Mastery Connect •Ultimate 2nd Grade Snapshots Bundle- Math-CCSS •NJ DOE Model Curriculum Assessments- NJ Dept. of Education 	<p>CCSS.Math.Content.2.G.A.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.¹</p> <p>Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.</p>	<p>http://www.2nd-grade-math-salamanders.com/</p> <p>http://www.mathinenglish.com/worksheetsgeometry.php</p>	<ol style="list-style-type: none"> 1). What is the difference between lines and curves? 2). Which shapes have line? Which shapes have curves? 3). Why do we need to learn about lines and curves in the real world? 	<ol style="list-style-type: none"> 1). Line and Curves yarn activity with letters and numbers 2). Lines and curves chalk activity
1 week	2D and 3D Shapes	<ul style="list-style-type: none"> • Identify, classify and count flat and curved surfaces • Identify solids that can stack, slide and/or roll Identify, classify and combine plane and solid shapes • Draw shapes and figures on dot paper and square grid paper • Build models using solid shapes • Identify, describe, extend and create patterns using different sizes, shapes, colors and positions 	<ul style="list-style-type: none"> •Flat •Plane •sides •Vertices •Vertex •Corners •Edges •2-D/3-D •Solid •Stack •Roll •Slide •Sort •Triangles •Quadrilaterals •Pentagons •Hexagons •Cone •Cube •Rectangular prism •Cylinder •Triangular prism •pyramid 	<ul style="list-style-type: none"> •Math in Focus Assessments (Background Knowledge) •Mastery Connect •Ultimate 2nd Grade Snapshots Bundle- Math-CCSS •NJ DOE Model Curriculum Assessments- NJ Dept. of Education 	<p>CCSS.Math.Content.2.G.A.1 Recognize and draw shapes having specified attributes, such as a given number of angles or a given number of equal faces.¹</p> <p>Identify triangles, quadrilaterals, pentagons, hexagons, and cubes.</p> <p>CCSS.Math.Content.2.G.A.2 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.</p>	<p>http://www.2nd-grade-math-salamanders.com/</p> <p>http://www.mathinenglish.com/worksheetsgeometry.php</p> <p>http://www.mathworksheets4kids.com/solid-shapes.html</p> <p>http://www.k6-geometric-shapes.com/shape-worksheets.html</p> <p>K-6thinkcentral</p>	<ol style="list-style-type: none"> 1). How can you recognize the difference between 2-D shapes and 3-D shapes? 2). Which real world objects take on the forms of 2-D or 3-D shapes? 3). Which shapes can you roll, stack, slide through sorting? 	<ol style="list-style-type: none"> 1).Marshmallow Geometric Shapes (S.T.E.M. Project) 2). 2D and 3D Snack sort 3).2 D and 3D Jeopardy Game http://madeintheshadeinsecondgrade.blogspot.com/search?updated-max=2012-02-04T15:27:00-05:00&max-results=7 4). Real life objects in 2D-3D Project.