Lady Liberty Academy Charter School

2nd Grade Year at a Glance in Mathematics

By Mrs. Rymer

# \*TRIMESTER 1\* (September-December)

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| **First 2 weeks of school-****Math Review**18-6= 7+8= 1+2+3=6  5 + 2 4 | * Addition and Subtraction math facts 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)
 |
| **Place Value Numbers with 2 digits-> tens and ones**25= 2 tens and 5 onesStandard Form: 25Expanded form: 20+5Word form: Twenty-fiveModel form: 25>19

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|  tens |  ones |
|  2 |  5 |

 | * 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 =.
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| **2 digit addition and subtraction without regrouping.**12+24= Tens Ones 13 +22\*Ms. Rymer has 12 bubbles and Ms. Levin has 14 bubbles, how many do they have altogether? | * 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.
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| **2 digit addition and subtraction with regrouping.**25-19= Tens Ones (3) 4 0 (10)* 3 2

\*Students should be able to recognize quickly math problems that need to be regrouped.Can we regroup? Yes or No12-19= (Yes because the 2 in the ones is less than 9). | * 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.
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| **Place Value up to 1,000**\*Students must practice counting by 100’s –100,200,300,400,500,600,700,800,900,1,000!Standard Form: 123Word form: One hundred twenty-threeExpanded Form: 100+20+3Model Form:

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| Hundreds | Tens | Ones |
|  1 |  2 |  3 |

123<134123=1 hundred, 2 tens, 3 ones | * 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. |
| **3 Digit addition and subtraction *without* regrouping.**312+224= H T O H-Hundreds 423 T-Tens -422 O-Ones | * 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.
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| **3 Digit addition and subtraction *with* regrouping**319+224= H T O H-Hundreds 5 13 T-Tens -4 22 O-Ones\*Students should be able to recognize quickly math problems that need to be regrouped.Can we regroup? Yes or No(Yes, because we cannot subtract 1-2 in the tens place. 1 is < than 2 and numbers on top that are less than the numbers on the bottom are a sign of regrouping and borrowing from our next number neighbors.) | * 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.
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## Trimester 2 (January-March)

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| **Estimation and Rounding 2 digit numbers.**\*Round to nearest tens-45🡪50 43🡪 40+25🡪 +30Rounding Rules1. Find the number, look next door.
2. 4 or less, just ignore!
3. 5 or greater, add 1 more!
4. Be a hero, everything after, write a zero!
 | * 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.
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| **Estimation and Rounding 3 digit numbers.**\*Round to nearest tens.345🡪350\*Round to nearest hundred.345🡪300\*Students will also round and estimate numbers for addition and subtraction with 3 digit numbers. | * 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.
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| **Adding and Subtracting 1 and 2 Step Word Problems**http://www.k-5mathteachingresources.com/images/2stepwordproblems.jpg | * 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.
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| **Money**http://ts2.mm.bing.net/th?id=HN.608040036452271417&pid=15.1 | • Recognize bills and coins and their respective values• 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 andSubtraction of money. |
| **Metric Measurement**http://ts1.mm.bing.net/th?id=HN.608011818512418676&pid=15.1 | • Measure and compare how long and how tall things are using metricmeasurements (centimeter and meter)• Draw a line of a given length• Use model drawing to solve real-world measurement problems. |
| **Customary Measurement**http://ts4.mm.bing.net/th?id=HN.608011827102551627&pid=15.1 | • Use a ruler to measure, compare and estimate lengths of objects incustomary units of measurement (feet and inches)• Solve one and two-step problems involving length. |
| **Odd and Even Numbers**http://ts1.mm.bing.net/th?id=HN.608000685963542764&pid=15.1 | * 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.
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# Trimester 3 (April-June)

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| **Multiplication tables of 2, 5, 10**http://ts4.mm.bing.net/th?id=HN.608003228586017403&pid=15.1 | • 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• Divide using 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. |
| Multiplication Tables of 3, 4http://ts2.mm.bing.net/th?id=HN.608036772277193509&pid=15.1 | • Use skip-counting and dot paper strategies as concrete representationsTo 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. |
| **Division****Division Strategies** |  • Divide to share equally. • Divide by repeated subtraction of equal groups.* Draw a picture
* Repeated Subtraction
* Number line
* Inverse Multiplication fact operation
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| **Fractions**http://ts3.mm.bing.net/th?id=HN.608051332209117086&pid=15.1 http://ts2.mm.bing.net/th?id=HN.608005453371146357&pid=15.1 | * 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.
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| **Time***Telling Time Worksheets* | • 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). |
| **Picture and Bar Graphs**http://ts2.mm.bing.net/th?id=HN.608011161383341821&pid=15.1 | • Read, analyze and interpret picture graphs.• Make picture graphs and solve real-world problems using picture graphs. |
| **Shapes and Lines**http://ts3.mm.bing.net/th?id=HN.607994947875571434&pid=15.1 | • Recognize, draw, identify and describe parts of lines and curves• Identify, classify and count flat and curved surfaces• Identify solids that can stack, slide and/or roll |
| **2-D & 3-D Shapes and Patterns**http://ts2.mm.bing.net/th?id=HN.608047093083671993&pid=15.1 | • 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 |