Lady Liberty Academy Charter School

2nd Grade Year at a Glance in Mathematics

By Mrs. Rymer

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

|  |  |
| --- | --- |
| **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 ones  Standard Form: 25  Expanded form: 20+5  Word form: Twenty-five  Model form:  25>19   |  |  | | --- | --- | | 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 =. |
| **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. |
| **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 No  12-19= (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. |
| **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: 123  Word form: One hundred twenty-three  Expanded Form: 100+20+3  Model Form:   |  |  |  | | --- | --- | --- | | Hundreds | Tens | Ones | | 1 | 2 | 3 |   123<134  123=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. |
| **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. |

## Trimester 2 (January-March)

|  |  |
| --- | --- |
| **Estimation and Rounding 2 digit numbers.**  \*Round to nearest tens-  45🡪50  43🡪 40  +25🡪 +30  Rounding Rules   1. 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. |
| **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. |
| **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. |
| **Money**  [http://ts2.mm.bing.net/th?id=HN.608040036452271417&pid=15.1](http://www.tlsbooks.com/letslearnaboutmoney4.html) | • 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 and  Subtraction of money. |
| **Metric Measurement**  [http://ts1.mm.bing.net/th?id=HN.608011818512418676&pid=15.1](http://www.teacherspayteachers.com/Product/Academic-Jeopardy) | • 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. |
| **Customary Measurement**  [http://ts4.mm.bing.net/th?id=HN.608011827102551627&pid=15.1](http://pinterest.com/pin/112308584433125921/) | • 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. |
| **Odd and Even Numbers**  [http://ts1.mm.bing.net/th?id=HN.608000685963542764&pid=15.1](http://www.sithtech.net/photographyzto/List-of-Odd-Numbers-Chart.html) | * 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. |

# Trimester 3 (April-June)

|  |  |
| --- | --- |
| **Multiplication tables of 2, 5, 10**  [http://ts4.mm.bing.net/th?id=HN.608003228586017403&pid=15.1](http://www.mymathspages.com/2012/10/multiplication-and-its-importance-in-improving-your-maths/2-5-and-10-times-tables/) | • 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, 4  [http://ts2.mm.bing.net/th?id=HN.608036772277193509&pid=15.1](http://amazingworksheets.blogspot.com/2012/04/times-tables-chart-2345.html) | • 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. |
| **Division**  **[Division Strategies](http://media-cache-ec0.pinimg.com/originals/c2/14/0b/c2140b0355a56f097deaaff35cb0045b.jpg)** | • Divide to share equally.  • Divide by repeated subtraction of equal groups.   * Draw a picture * Repeated Subtraction * Number line * Inverse Multiplication fact operation |
| **Fractions**  [http://ts3.mm.bing.net/th?id=HN.608051332209117086&pid=15.1](http://www.freewebs.com/workstattion/MATH/fractions/activities.htm) [http://ts2.mm.bing.net/th?id=HN.608005453371146357&pid=15.1](http://www.fractionsworksheets.ca/fractions/fractions.html) | * 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. |
| **Time**  *[Telling Time Worksheets](http://www.teacherspayteachers.com/Product/Telling-Time-Unit-with-Five-lessons-Digital-analog-and-elapsed-time)* | • 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](http://www.australiancurriculum.edu.au/Glossary?a=M&t=picture+graphs) | • 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](http://blogs.fairview.k12.oh.us/jlefevre/2013/09/) | • 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](http://www.chartmedia.co.uk/2d-3d-shapes) | • 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 |