

3rd Grade Mathematics
1st Nine Week Curriculum Guide
 Developed Summer 2009

*Please use this document as a guide. You may add anything that you need to in order to pace your teaching.
 !!REMEMBER- Always go through the introduction of a text book before beginning the Units.

| Title: Data Analysis, Measurement, Money, Comparing | | | | | Time Frame: 1 st Nine Weeks |
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| Academic Vocabulary: | | | | | |
| GLEs | Essential Questions | Resources | Common Experiences | Checks for Understanding | Integrations/ Connections |
| *MGLE0306.3.4 Create and represent patterns using words, tables, graphs, and symbols. | Why do people use tables to record and interpret data? | Harcourt Math TE-Teacher edition SE-Student edition <ul style="list-style-type: none"> • Workbook • Problem Solving Workbook • Re-teaching workbook • Challenge Workbook • Manipulative Boxes • Teacher’s Resource Book School House Rock videos www.mathisfun.com www.funbrain.com www.math.harvard.com math videos | Problem Solving on Location: at the Statue of Liberty Harcourt Pp64-65 | *m0306.3.6 Analyze patterns in words, tables, and graphs to draw conclusions. | Ch.15 Ch.16 Ch. 6 Ch.1 Ch.2 Ch.3 |

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| <p>*MGLE0306.1.1 Use mathematical language, symbols, and definitions while developing mathematical reasoning.</p> | | | <p>Math Word Work Harcourt TE p.320B</p> | <p>*m0306.1.8 Explain and justify answers on the basis of mathematical properties, structures, and relationships. *m0306.1.10 Use correct, clearly written and oral mathematical language to pose questions and communicate ideas.</p> | |
| <p>*MGLE0306.1.3 Develop independent reasoning to communicate mathematical ideas and derive algorithms and/or formulas.</p> | | <p>www.aaamath.com www.toonuniversity.com www.platolearn.com www.aplusmath.com www.freemathtest.com www.teachrkids.com www.visualfractions.com www.noeticlearning.com/mathdrill</p> | | <p>*m0306.1.5 Determine when and how to break a problem into simpler parts. *m0306.1.7 Determine when and how to break a problem into simpler parts.</p> | |

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| <p>*MGLE0306.1.4 Move flexibly between concrete and abstract representations of mathematical ideas in order to solve problems, model mathematical ideas, and communicate solution strategies.</p> <p>*MGLE0306.1.5 Use mathematical ideas and processes in different settings to formulate patterns, analyze graphs, set up and solve problems and interpret solutions.</p> | | <p>www.amathsdictionaryforkids.com</p> <p>www.shodor.org/interactive/activities</p> <p>www.factmonster.com</p> <p>www.internet4classrooms.com</p> <p>http://classroom.jc-schools.net/math-unit/</p> <p>www.coolmath4kids.com</p> <p>www.numbernut.com</p> <p>www.eduplace.com/math/brain</p> | | <p>*m0306.1.9 Use manipulatives to demonstrate that the commutative property holds for addition but not for subtraction.</p> <p>*m0306.1.10 Use correct, clearly written and oral mathematical language to pose questions and communicate ideas.</p> <p>*m0306.1.12 Analyze and evaluate the mathematical thinking and strategies of others.</p> | |
| <p>*MGLE0306.1.6 Read and interpret the language of mathematics and use written/oral communication to express mathematical ideas precisely.</p> | | | | <p>*m0306.1.4 Analyze problems by identifying relationships, distinguishing relevant from irrelevant information, and</p> | |

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| | | | | <p>observing patterns.</p> <p>*m0306.1.7 Determine when and how to break a problem into simpler parts.</p> <p>*m0306.1.8 Explain and justify answers on the basis of mathematical properties, structures, and relationships.</p> <p>*m0306.1.12 Analyze and evaluate the mathematical thinking and strategies of others.</p> | |
| <p>MGLE0306.1.8 Use technologies / manipulatives appropriately to develop understanding of mathematical algorithms, to facilitate problem</p> | | | | <p>*m0306.1.9 Use manipulatives to demonstrate that the commutative property holds for addition but not for subtraction.</p> | |

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| <p>solving, and to create accurate and reliable models of mathematical concepts.</p> | | | | <p>*m0306.1.13 Create an use representations to organize, record, and communicate mathematical ideas.</p> <p>*m0306.1.14 Use age-appropriate books, stories, and videos to convey ideas of mathematics.</p> | |
| <p>*MGLE0306.2.2 Develop understanding of multiplication and related division facts through multiple strategies and representations.</p> <p>*MGLE0306.2.3 Relate multiplication and division as inverse operations.</p> <p>*MGLE0306.2.4 Solve multiplication and division problems using various representations.</p> | <p>How is multiplication related to addition?</p> | | <p>**Begin multiplication and division facts during the 1st nine weeks. This is an ongoing skill for the year. Practice and timed quizzes should come often!! ***** Multiplication Rocks! Harcourt TE p.228</p> | <p>*m0306.2.7 Represent multiplication using various representations such as equal-size groups, arrays, area models, and equal jumps on number lines.</p> <p>*m0306.2.8 Represent division using various representations such as successive subtraction, the number of equal</p> | <p>Extra Practice</p> <ul style="list-style-type: none"> • Ch. 8-11 Multiplication • Ch. 12-14 Division <p>Workbook ppg. 8.1-14.5</p> |

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| | | | | <p>jumps, partitioning, and sharing.</p> <p>*m0306.2.9 Describe contexts for multiplication and division facts.</p> | |
| <p>*MGLE0306.3.2 Develop understanding that a letter or a symbol can represent an unknown quantity in a simple mathematical expression/equation.</p> | <p>What is the relationship between addition and subtraction?</p> | | | <p>*m0306.3.5 Find unknowns in number sentences and problems involving addition, subtraction, multiplication, or division.</p> | |
| <p>*MGLE0306.1.7 Recognize the historical development of mathematics, mathematics in context, and the connections between mathematics and the real world.</p> | <p>Why should you begin counting money with the bill or coin with the greatest value?</p> | | <p>Math Harcourt TE Pg 108b Math word work.</p> | <p>*m0306.1.2 Compare and order decimal amounts in the context of money.</p> <p>*m0306.1.3 Count the value of combinations of coins and bills up to five dollars.</p> | |
| <p>*MGLE0306.2.6 Use various strategies and models to compare and order fractions and identify equivalent fractions.</p> | | | | <p>*m0306.2.2 Understand and use the symbols =, <, >, to signify order and comparison.</p> | |

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| | | | | <p>*m0306.2.5 Use highest order value (such as tens or hundreds digit) to make simple estimates.</p> | |
| <p>*MGLE0306.4.4 Use appropriate units, strategies and tools to solve problems involving perimeter.</p> | | | | <p>*m0306.4.10 Use reasonable units of length in estimates and measures.</p> <p>*m0306.4.11 Know common equivalences for length.</p> <p>*m0306.4.12 Make and record measurements that use mixed units within the same system of measurement.</p> <p>*0306.4.13 Use common abbreviations: km, m, cm, in, ft, yd, mi.</p> | |

3rd Grade Mathematics
 2nd Nine Week Curriculum Guide
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 !!REMEMBER- Always go through the introduction of a text book before beginning the Units.

| Title: Customary Units (metric & temperature), Addition, Subtraction, Time | | | | Time Frame: 2 nd Nine Weeks | |
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| Academic Vocabulary: | | | | | |
| GLEs | Essential Questions | Resources | Common Experiences | Checks for Understanding | Integrations/ Connections |
| *MGLE0306.4.5 Solve measurement problems involving fractional parts of linear units and capacity units. | Why is it important to have customary units of measure? | Check the list for Unit 1. | Problem Solving on Location: in Washington D.C. Harcourt Pp154-155 | *m0306.4.6 Recognize the use of fractions in liquid measurement. *m0306.4.7 Recognize the relationships among cups, pints, quarts, and gallons. *m0306.4.8 Estimate and/or measure the capacity of a container. *m0306.4.9 Measure weight to the nearest ounce or gram. | Ch. 17 & 18 Ch. 4 Ch. 5 Ch. 7 |

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| <p>*MGLE0306.2.1 Understand the place value of whole numbers to ten-thousands place including expanded notation for all arithmetic operations.</p> | | | | <p>*m0306.2.1 Read and write numbers up to 10,000 in numerals and up to 1,000 in words.</p> <p>*m0306.2.3 Use parentheses to indicate grouping.</p> <p>*m0306.2.4 Use a variety of methods to perform mental computations and compare the efficiency of those methods.</p> <p>*m0306.2.6 Solve a variety of addition and subtraction story problems including those with irrelevant information.</p> | |
| <p>*MGLE0306.3.1 Develop meaning for and apply the commutative, associative, and distributive properties using various representations.</p> | <p>How is regrouping in subtraction different from regrouping in addition?</p> | | | <p>*m0306.3.1 Show that addition and multiplication are commutative operations.</p> <p>*m0306.3.2 Show that subtraction and division are not commutative operations.</p> | |

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| | | | | <p>*m0306.3.3 Use commutative, associative, and distributive properties to multiply whole numbers.</p> <p>*m0306.3.4 Create and represent patterns using words, tables, graphs, and symbols.</p> | |
| <p>*MGLE0306.1.2 Apply and adapt a variety of appropriate strategies to problem solving, including estimation, and reasonableness of the solution.</p> | | | <p>Task-B Yarn Dolls</p> <p>Harcourt TE p.378</p> | <p>*m0306.1.4 Analyze problems by identifying relationships, distinguishing relevant from irrelevant information, and observing patterns.</p> <p>*m0306.1.5 Determine when and how to break a problem into simpler parts.</p> <p>*m0306.1.6 Use estimation to check answers for reasonableness, and calculators to check for accuracy.</p> | |

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| <p>*MGLE0306.1.7 Recognize the historical development of mathematics, mathematics in context, and the connections between mathematics and the real world.</p> | <p>What are the different ways to tell time?</p> | | | <p>*m0306.1.1 Read and write time to the nearest minute.</p> <p>*m0306.1.10 Use correct, clearly written and oral mathematical language to pose questions and communicate ideas.</p> | |
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3rd Grade Mathematics
 3rd Nine Week Curriculum Guide
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| Title: Geometric Figures, Congruent, Symmetry, Solid & Plane, Perimeter, Area, Volume, Algebra Patterns, Probability, Fractions. | | | | | Time Frame:3rd Nine Weeks |
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| Academic Vocabulary: | | | | | |
| GLEs | Essential Questions | Resources | Common Experiences | Checks for Understanding | Integrations/ Connections |
| *MGLE0306.4.1 Describe, compare, and analyze properties of polygons. | How do you name and sort polygons? | | Polygon Puzzle Challenge WB Lesson 19.3 p.CW101 | *m0306.4.1 Describe properties of plane figures and solid shapes. *m0306.4.2 Classify polygons according to the number of their sides and angles. *m0306.4.3 Classify lines and segments as parallel, perpendicular, or intersecting. | Ch.19 |
| *MGLE0306.4.2 Understand and apply the concepts of congruence and symmetry. | What do you know about congruent figures? | | | *m0306.4.4 Identify, create, and describe figures with line symmetry. | Ch. 20 |

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| *MGLE0306.4.3 Understand and use attributes of 2 and 3 dimensional figures to solve problems. | How can you compare and contrast plane and solid figures? | | | *m0306.4.1 Describe properties of plane figures and solid shapes. | Ch 21 |
| *MGLE0306.4.4 Use appropriate units, strategies and tools to solve problems involving perimeter. | What is the difference between an estimate and an actual measurement? | | | *m0306.4.5 Understand that all measurements require units. | Ch 22 Science |
| *MGLE0306.4.5 Solve measurement problems involving fractional parts of linear units and capacity units. | | | | *m0306.4.6 Recognize the use of fractions in liquid measures. | Ch 22 |
| *MGLE0306.3.3 Describe and analyze patterns and relationships in contexts. | How would you explain what translating a pattern means? | | Measurement Challenge WB Lesson 20.3 p.CW107 | *m0306.3.7 Create different representations of a pattern given a verbal description. *m0306.3.8 Analyze patterns in quantitative change resulting from computation. | Ch 23 Science- Data Analysis |
| *MGLE0306.5.1 Organize, display, and analyze data using various representations to solve problems. | | | Practice Game SPIN ME Harcourt TE p.468G | *m0306.5.1 Collect and organize data using observations, surveys, and experiments. | Ch 24 |

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| | | | | <p>*m0306.5.2 Construct a frequency table, bar graph, pictograph, or line plot of collected data.</p> <p>*m0306.5.3 Compare and interpret different representations of the same data.</p> <p>*0306.5.4 Solve problems using data from frequency tables, bar graphs, pictographs, or line plots.</p> | |
| *MGLE0306.2.5 Understand the meaning and uses of fractions. | When writing a fraction, how do you know which number to use for the denominator and which for the numerator? | | | <p>*m0306.2.10 Understand that symbols such as $\frac{1}{2}$, $\frac{1}{3}$, and $\frac{1}{4}$ represent numbers called unit fractions.</p> <p>*m0306.2.11 Identify fractions as parts of whole units, as parts of sets, as locations on number lines, and as division of two whole numbers.</p> | Ch 25 |

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| | | | | *m0306.2.12 Compare fractions using drawings, concrete objects, and benchmark fractions. | |
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3rd Grade Mathematics
4th Nine Week Curriculum Guide
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| Title: Multiply, Divide, Decimals & Money, Fractions & Decimals, Add & Subtract Fractions. | | | | Time Frame: 4th Nine Weeks | |
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| Academic Vocabulary: | | | | | |
| GLEs | Essential Questions | Resources | Common Experiences | Checks for Understanding | Integrations/ Connections |
| *MGLE0306.2.2 Develop understanding of multiplication and related division facts through multiple strategies and representations. | How do you decide whether to use multiplication or division to solve a problem? | Check Unit 1 | | *m0306.2.7 Represent multiplication using various representations such as equal-size groups, arrays, area models, and equal jumps on number lines. | Ch 29 |
| *MGLE0306.2.3 Relate multiplication and division as inverse operations. | | | | *m0306.2.4 Use a variety of methods to perform mental computations and compare the efficiency of those methods. | |
| *MGLE0306.2.4 Solve multiplication and division problems using various representations. | | | | *m0306.2.8 Represent division using various representations such as successive subtraction, the number of equal jumps, partitioning, and sharing. | Ch 30 |

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| <p>*MGLE036.1.7 Recognize the historical development of mathematics, mathematics in context, and the connections between mathematics and the real world.</p> | | | <p>Comparing Decimals Lesson 27.5 Challenge WB p.CW145</p> | <p>*m0306.1.2 Compare and order decimal amounts in the context of money. *m0306.1.11 Develop strategies for solving problems involving addition and subtraction of measurements.</p> | <p>Ch 28</p> |
| <p>*MGLE0306.2.5 Understand the meaning and uses of fractions. *MGLE0306.2.6 Use various strategies and models to compare and order fractions and identify equivalent fractions.</p> | <p>How are fractions and decimals alike?</p> | | <p>Activity Wheel-Write a Story Harcourt TE p.514G</p> | <p>*m0306.2.12 Compare fractions using drawings, concrete objects, and benchmark fractions.</p> | <p>Ch27</p> |
| <p>*MGLE0306.2.7 Represent multiplication using various representations such as equal-size groups, arrays, area models, and equal jumps on number lines.</p> | <p>How is adding and subtracting fractions different from adding and subtracting whole numbers?</p> | | | <p>*m0306.2.12 Compare fractions using drawings, concrete objects, and benchmark fractions. *m0306.2.13 Understand that when a whole is divided into equal parts to create unit fractions, the sum of all the parts adds up to one.</p> | <p>Ch 26</p> |

