**SYLLABUS 2019-2020**

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| Course Name | 4th grade Math |
| Course Number | 4AB |
| Grade Level | 4th |
| Textbooks | McGraw-Hill Mathematics, GoMath |
| Resources | [www.mhschool.com](http://www.mhschool.com) |
| Required Materials | Daily Homework Practice Workbook & 5 subject notebook |
| Course Description:  Course Description:  **Mathematics:** The major emphasisof the fourth grade math program is to use the four  operations with whole numbers to solve problems, gain familiarity with factors and multiples,generate and analyze patterns. They will generalize place value understanding for multi-digit whole numbers, and use place value understanding and properties of operations to perform multi-digit arithmetic. They will extend understanding of fraction equivalence and ordering, build fractions from until fractions by applying and extending previous understandings of operations on whole numbers, and understand decimal notation for fractions, and compare decimal fractions. They will solve problems involving measurements from a larger until to a smaller unit, represent and interpret data, and understand concepts of angle and measure angles. They will also draw and identify lines and angles, and classify shapes by properties of their lines and angles.    Assessment Methods: Daily homework practice, daily assessment of concept understanding, summative evaluation, chapter pre- tests, chapter test and classwork | |

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| **Schoolwide Learner Outcomes (SLO)** | | | | |
| A-a A-b A-c | R-a R-b R-c | M-a M-b M-c | E-a E-b E-c | N-a N-b Nc |
| **Re-enter in the following boxes the designated SLOs numbers, which are addressed by this course** | | | | |
|  |  | M-a M-b M-c |  |  |

**Content Standards**

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| **The following is the Common Core or California Department of Education Content Standards** |
| Operations and Algebraic Thinking 4.OA Use the four operations with whole numbers to solve problems.  1. Interpret a multiplication equation as a comparison, e.g., interpret 35 = 5 × 7 as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.  2. Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.1  3. Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. Gain familiarity with factors and multiples.  4. Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite. Generate and analyze patterns.  5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. For example, given the rule “Add 3” and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.  Gain familiarity with factors and multiples.  4. Find all factor pairs for a whole number in the range 1–100. Recognize that a whole number is a multiple of each of its factors. Determine whether a given whole number in the range 1–100 is a multiple of a given one-digit number. Determine whether a given whole number in the range 1–100 is prime or composite.  Generate and analyze patterns.  5. Generate a number or shape pattern that follows a given rule. Identify apparent features of the pattern that were not explicit in the rule itself. For example, given the rule “Add 3” and the starting number 1, generate terms in the resulting sequence and observe that the terms appear to alternate between odd and even numbers. Explain informally why the numbers will continue to alternate in this way.  Number and Operations in Base Ten2 4.NBT Generalize place value understanding for multi-digit whole numbers.  1. Recognize that in a multi-digit whole number, a digit in one place represents ten times what it represents in the place to its right. For example, recognize that 700 ÷ 70 = 10 by applying concepts of place value and division.  2. Read and write multi-digit whole numbers using base-ten numerals, number names, and expanded form. Compare two multidigit numbers based on meanings of the digits in each place, using >, =, and < symbols to record the results of comparisons.  3. Use place value understanding to round multi-digit whole numbers to any place. Use place value understanding and properties of operations to perform multi-digit arithmetic.  4. Fluently add and subtract multi-digit whole numbers using the standard algorithm.  5. Multiply a whole number of up to four digits by a one-digit whole number, and multiply two two-digit numbers, using strategies based on place value and the properties of operations. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.  6. Find whole-number quotients and remainders with up to four-digit dividends and one-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.  Number and Operations—  Fractions3 4.NF Extend understanding of fraction equivalence and ordering.  1 1. Explain why a fraction a/b is equivalent to a fraction (n × a)/(n × b) by using visual fraction models, with attention to how the number and size of the parts differ even though the two fractions themselves are the same size. Use this principle to recognize and generate equivalent fractions.  2. Compare two fractions with different numerators and different denominators, e.g., by creating common denominators or numerators, or by comparing to a benchmark fraction such as 1/2. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparisons with symbols >, =, or  Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.  3. Understand a fraction a/b with a > 1 as a sum of fractions 1/b. a. Understand addition and subtraction of fractions as joining and separating parts referring to the same whole. b. Decompose a fraction into a sum of fractions with the same denominator in more than one way, recording each decomposition by an equation. Justify decompositions, e.g., by using a visual fraction model. Examples: 3/8 = 1/8 + 1/8 + 1/8 ; 3/8 = 1/8 + 2/8 ; 2 1/8 = 1 + 1 + 1/8 = 8/8 + 8/8 + 1/8. c. Add and subtract mixed numbers with like denominators, e.g., by replacing each mixed number with an equivalent fraction, and/or by using properties of operations and the relationship between addition and subtraction. d. Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators, e.g., by using visual fraction models and equations to represent the problem.  4. Apply and extend previous understandings of multiplication to multiply a fraction by a whole number. a. Understand a fraction a/b as a multiple of 1/b. For example, use a visual fraction model to represent 5/4 as the product 5 × (1/4), recording the conclusion by the equation 5/4 = 5 × (1/4). b. Understand a multiple of a/b as a multiple of 1/b, and use this understanding to multiply a fraction by a whole number. For example, use a visual fraction model to express 3 × (2/5) as 6 × (1/5), recognizing this product as 6/5. (In general, n × (a/b) = (n × a)/b.) c. Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. For example, if each person at a party will eat 3/8 of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?  Understand decimal notation for fractions, and compare decimal fractions.  5. Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100.4 For example, express 3/10 as 30/100, and add 3/10 + 4/100 = 34/100.2  6. Use decimal notation for fractions with denominators 10 or 100. For example, rewrite 0.62 as 62/100; describe a length as 0.62 meters; locate 0.62 on a number line diagram.  7. Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole. Record the results of comparisons with the symbols >, =, or  Measurement and Data 4.MD Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.  1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit. Record measurement equivalents in a two-column table. For example, know that 1 ft is 12 times as long as 1 in. Express the length of a 4 ft snake as 48 in. Generate a conversion table for feet and inches listing the number pairs (1, 12), (2, 24), (3, 36), . . .  2. Use the four operations to solve word problems involving distances, intervals of time, liquid volumes, masses of objects, and money, including problems involving simple fractions or decimals, and problems that require expressing measurements given in a larger unit in terms of a smaller unit. Represent measurement quantities using diagrams such as number line diagrams that feature a measurement scale.  3. Apply the area and perimeter formulas for rectangles in real-world and mathematical problems. For example, find the width of a rectangular room given the area of the flooring and the length, by viewing the area formula as a multiplication equation with an unknown factor.  Represent and interpret data.  4. Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8). Solve problems involving addition and subtraction of fractions by using information presented in line plots. For example, from a line plot find and interpret the difference in length between the longest and shortest specimens in an insect collection.  Geometric measurement: understand concepts of angle and measure angles.  5. Recognize angles as geometric shapes that are formed wherever two rays share a common endpoint, and understand concepts of angle measurement: a. An angle is measured with reference to a circle with its center at the common endpoint of the rays, by considering the fraction of the circular arc between the points where the two rays intersect the circle. An angle that turns through 1/360 of a circle is called a “one-degree angle,” and can be used to measure angles. b. An angle that turns through n one-degree angles is said to have an angle measure of n degrees.  6 Measure angles in whole-number degrees using a protractor. Sketch angles of specified measure.  7. Recognize angle measure as additive. When an angle is decomposed into non-overlapping parts, the angle measure of the whole is the sum of the angle measures of the parts. Solve addition and subtraction problems to find unknown angles on a diagram in real-world and mathematical problems, e.g., by using an equation with a symbol for the unknown angle measure.  Geometry  4.G Draw and identify lines and angles, and classify shapes by properties of their lines and angles.  1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.  2. Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines, or the presence or absence of angles of a specified size. Recognize right triangles as a category, and identify right triangles. (Two-dimensional shapes should include special triangles, e.g., equilateral, isosceles, scalene, and special quadrilaterals, e.g., rhombus, square, rectangle, parallelogram, trapezoid.) CA  3. Recognize a line of symmetry for a two-dimensional figure as a line across the figure such that the figure can be folded along the line into matching parts. Identify line-symmetric figures and draw lines of symmetry.  **If need be please use additional pages** |

**Subject Matter Covered**

**Please, include the textbook chapters and additional resources to be used**

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| **Semi-Quarter 1** | |
| Week 1 | Chapter 1 Lessons 1-3  Model Place Value; Read and Write Numbers, Compare Numbers |
| Week 2 | Chapter 1 Lessons 4-6  Round Numbers; Rename Numbers; Add Whole Numbers  Mid Chapter Checkpoint Quiz |
| Week 3 | Chapter 1 Lessons 7-9  Subtract Whole Numbers; Problem Solving  Chapter 1 Test |
| Week 4 | Chapter 2 Lessons 1-3  Multiplication Problems; Multiply Tens, Hundreds and Thousands |
| Week 5 | Chapter 2 Lessons 4-6  Estimate Products; Distributive Property; Using Expanded form  Mid-Chapter Checkpoint Quiz |

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| **Semi-Quarter 2** | |
| Week 1 | Chapter 2 Lessons 7-9  Multiply Using Mental Math; Problem Solving; Multistep Problems |
| Week 2 | Chapter 2 Lessons 10-12  Multiply 2-and 3-Digit Numbers; Use Equations  Chapter 2 Test |
| Week 3 | Chapter 3 Lessons 1-2  Multiply by Tens; Estimate Products |
| Week 4 | Chapter 3 Lessons 3-4  Multiply using Partial Products  Mid-Chapter Checkpoin Quiz |
| Week 5 | Chapter 3 Lessons 5-7  Choose a Multiplication Method; Problem Solving  Chapter 3 Test |

**Subject Matter Covered**

**Please, include the textbook chapters and additional resources to be used**

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| **Semi-Quarter 3** | |
| Week 1 | Chapter 4 Lessons 1-4  Estimate Quotients Using Multiples; Interpret the Remainder; Divide Tens, Hundreds, and Thousands |
| Week 2 | Chapter 4 Lessons 5-8  Compatible Numbers; Division and the Distributive Property  Mid-Chapter Checkpoint Quiz |
| Week 3 | Chapter 4 Lesson 9-12  Divide Using Partial Quotients; Model Division with Regrouping; Divide by 1-digit Numbers  Chapter 4 Test |
| Week 4 | Chapter 5 Lessons 1-3  Model Factors; Factors and Divisibility; Problem Solving  Mid-Chapter Checkpoint Quiz |
| Week 5 | Chapter 5 Lessons 4-6  Factors ad Multiples; Prime and Composite Numbers; Patterns  Chapter 5 Test |

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| **Semi-Quarter 4** | |
| Week 1 | Chapter 6 Lessons 1-4Equivalent Fractions; Simplest Form; Common Denominatiors  Mid-Chapter Checkpoint Quiz |
| Week 2 | Chapter 6 Lessons 5-8  Problem Solving; Compare Fractions; Order Fractions  Chapter 6 Test |
| Week 3 | Chapter 7 Lessons 1-3  Add and Subtract Parts of Fractions; Write Fractions as Sums; Add Fractions Using Models |
| Week 4 | Chapter 7 Lessons 4-6  Subtract Fraction; Add and Subtract Fractions  Mid-Chapter Checkpoint Quiz |
| Week 5 | Chapter 7 Lessons 7-10  Rename Fractions and Mixed Numbers; Fractions and Properties of Addition ; Problem Solving  Chapter 7 Test |

**Subject Matter Covered**

**Please, include the textbook chapters and additional resources to be used**

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| **Semi-Quarter 5** | |
| Week 1 | Chapter 8 Lessons 1-2  Multiples of Unit Fractions; Multiples of Unit Fractions  Mid-Chapter Checkpoint Quiz |
| Week 2 | Chapter 8 Lessons 3-5  Multiply a Fraction by a Whole Number; Multiply Mixed Numbers with Whole Numbers  Chapter 8 Test |
| Week 3 | Chapter 9 Lessons 1-2  Relate Tenths and Decimals; Relate Hundredths and Decimals |
| Week 4 | Chapter 9 Lessons 3-5  Equivalent Fractions and Decimals; Relate Fractions Decimals and Money; Problem Solving  Mid-Chapter Checkpoint Quiz |
| Week 5 | Chapter 9 Lessons 6-8  Add Fractional Parts of 10 and 100; Compare Decimals  Chapter 9 Test |

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| **Semi-Quarter 6** | |
| Week 1 | Chapter 10 Lessons 1-2  Lines, Rays, and Angels; Classify Triangles by Angels |
| Week 2 | Chapter 10 Lessons 3-6  Classify Triangles by Sides; Parallel Lines; Quadrilaterals  Mid-Chapter Checkpoint Quiz |
| Week 3 | Chapter 10 Lessons 7-9  Line of Symmetry; Find and Draw Lines of Symmetry; Shape Pattern  Chapter 10 Test |
| Week 4 | Chapter 11 Lessons 1-2  Angles and Fractional Parts of Circles; Degrees |
| Week 5 | Chapter 11 Lesson 3-4  Measure and Draw Angles; Find Degree of an Angle  Mid-Chapter Checkpoint Quiz |

**Subject Matter Covered**

**Please, include the textbook chapters and additional resources to be used**

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| **Semi-Quarter 7** | |
| Week 1 | Chapter 11 Lessons 5-6  Problem Solving; Unknown Angles Measures  Chapter 11 Test |
| Week 2 | Chapter 12 Lessons 1-2  Measurement Benchmarks; Customary Units of Length |
| Week 3 | Chapter 12 Lessons 3-4  Customary Units of Weight and Capasity |
| Week 4 | Chapter 12 Lessons 5-6  Line Plots; Metric units of Length  Mid-Chapter Checkpoint Quiz |
| Week 5 | Chapter 12 Lesson 7-9  Metric Units of Mass and Volume; Units of Time; Elapsed Time |

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| **Semi-Quarter 8** | |
| Week 1 | Chapter 12 Lessons 9-11  Mixed Measures; Patterns in Measurement Units  Chapter 12 Test |
| Week 2 | Chapter 13 Lessons 1-2  Perimeter; Area |
| Week 3 | Chapter 13 Lessons 3-4  Area of Combined Rectangles  Mid-Chapter Checkpoint Quiz |
| Week 4 | Chapter 13 Lessons 5-6  Problem Solving; Find the Area  Chapter 13 Test |
| Week 5 | Review |

**Classroom Rules**

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| **This section includes classroom rules set by the school administration** |
| * Students must be in the classroom and seated at their desks when the bell rings * Students must work quietly in a low tone during group activities * Students must not chew gum, eat, or drink in the classrooms * Students must follow teachers' directives without challenge at all times * Students must address the school personnel as Mr. (Baron), Mrs. (Digin), Ms./Miss (Oryort) * Students must raise a hand to request permission to talk or to ask questions * Students must be highly attentive to class instructions * Students must avoid sleeping in the classroom * Students must be under supervision at all times * Students may not be in a classroom without the presence of a teacher * Restroom visits must be done at recesses only, except in emergency situations * Students cannot visit other classrooms * Students may not have incomplete or missing homework assignments * Students must bring the required workbooks and textbooks to classroom * Students must be prepared for classroom work * Students must not miss parental signatures in assignment book or on tests.   The Cooperation Grade reflects a student’s behavior and work habits in the classroom. Therefore, the Cooperation Grade is assigned based on the number of violations committed relative to the above-mentioned Classroom Rules. If a student frequently violates the above-mentioned Classroom Rules, the teacher must submit a “Referral Form” to the Office for proper action. Teachers are responsible in dealing with the above-mentioned classroom infractions as follows:   |  |  |  | | --- | --- | --- | | **Classroom Infractions & Cooperation Grade** | | | | 4 | Excellent | Exemplary conduct and no infractions | | 3 | Good | Good behavior and no infractions | | 2 | Needs Improvement | 1-5 infractions | | 1 | Unsatisfactory | 6-10 infractions |   At the end of each quarter, two and more “Unsatisfactory” grades in Cooperation will lead the Administration to issue the student a probation contract. If the performance of the student has not improved in the following quarter, then the student will be denied registration the ensuing year or face expulsion process. |
| **This section includes additional classroom rules set by the teacher** |
| 1. Be in your assigned seat and ready to work.  2. Take out required books and materials in every class, unless told otherwise by the teacher.  3. Listen and stay seated when someone is speaking.  4. Follow directions the first time they are given.  5. Turn assignments in on time.  6. Treat everyone and their property respectfully |

**Assessment Method**

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| **This section includes rules set by the school administration** |
| Test/Quiz Policy  Students take at least TWO tests and two quizzes per class or course per semi-quarter. Two to four quizzes may be counted as one test. It is up to the individual teacher to adopt a policy to drop the lowest test grade of a student in calculating the quarter grade. No more than two tests are scheduled on the same day. The test scheduled last will be automatically dropped.  Test/Quiz Make-Up  Students with **excused** absences shall have the opportunity to complete missed class work and make up all tests receiving full credit. The student is responsible to arrange for the make-up.  Students who miss a test/quiz because of an **unexcused** absence will receive a failing grade on that test/quiz, except when the teacher decides to offer the chance for make-up.  If a student misses a test/quiz while on suspension, he/she will not have the opportunity to make up the test/quiz and will receive an "F".  Cheating  Acts of cheating or plagiarism will result in suspension and the student will receive an "F" (20/100) on the test or the assigned work. |
| **This section includes additional grading rules set by the teacher** |
| The grades assigned to students are based on their **academic progress** and their **classroom behavior**. Students receive **Academic** and **Cooperation** grades for every quarter of the four-quarter academic year. Students also receive a mid-term progress report for each of these 9-10 weeklong quarters. Besides the quarter grades, students are assigned semester grades for each class or course.   |  |  |  |  | | --- | --- | --- | --- | | **Academic Grade Scale - Grades K-5** | | | | | Letter Grade | Scale  of 100 | Scale  of 4 |  | | A+ | 100-97 | 4.0 |  | | A | 96-93 | 4.0 | Exceeds grade level standards | | A- | 92-90 | 3.7 |  | | B+ | 89-87 | 3.3 |  | | B | 86-83 | 3.0 | Meets grade level standards | | B- | 82-80 | 2.7 |  | | C+ | 79-77 | 2.3 |  | | C | 76-73 | 2.0 | Partially meets grade level standards | | C- | 72-70 | 1.7 |  | | D+ | 69-67 | 1.3 |  | | D | 66-63 | 1.0 | Below grade level standards | | D- | 62-60 | 0.7 |  | | F | 59-0 | 0 | Fail |   Tests 50%  Quiz 10%  Homework 15%  Classwork 15%  Participation 10% |