2017-2018 Math 6

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**Additional Supplies:** All students should have standard 6th grade supplies as well as:

**A 5-subject college ruled notebook with a plastic cover**

**Composition notebook for warm-ups**

**Course Description:**

Students in Math 6 will be covering the NC math standards for 6th grade math. Students will demonstrate mastery of 6th grade skills through tests, quizzes and homework assignments. An outline of topics of study is listed at the bottom of this paper.

**Tutoring times:** **Thursday mornings from 8-8:50 AM**, other times by appt.

**Grading Scale:**

**formal** 65% (tests, tasks, projects, some classwork)

**informal** 35% (hw, quizzes, some classwork)

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| **Unit 1-****Rational Numbers and the Coordinate Plane** |  | Students will learn the concept of a negative number on the number line, coordinate plane, and in context. Students will also understand absolute value as the distance from 0 on the number line. Students will be able to graph points in all four quadrants of the coordinate plane and use these points to draw shapes and find lengths of horizontal and vertical segments. | **6.NS.6, 7, 8****6.G.3*****Discovery Ed Lessons: 5.1, 5.2, 5.3, 6.1, 6.2*** |
| **Unit 2 – Number Sense, Computation, and Fractions** |  | Students will continue learning about division of fractions and all computations using decimals conceptually, through the standard algorithm, and interpreting in context. Additionally, they will learn about the greatest common factor and least common multiple in context and in completing computations with fractions. | **6.NS.1, 2, 3, 4*****Discovery Ed Lessons: 1.1, 1.2, 4.2*** |
| **Unit 3 - Ratios** |  | Students will understand the definition, different representations, and uses of ratios. In this unit, they will use written descriptions to write and describe ratios, as well as complete tables with whole number ratio relationships (in table and graph form). They will also use ratio relationships to convert units of measure. | **6.RP.1, 3a, 3d*****Discovery Ed Lessons: 1.1,1.2, 4.2*** |
| **Unit 4-Unit Rates and Percents** |  | Students will understand the concept of a unit rate and use it to solve problems involving ratio and proportional reasoning.  | **6.RP.2, 3b, 3c*****Discovery Ed Lessons: 4.1, 4.3*** |
| **Unit 5 - Algebraic Expressions** |  | In this unit, students will begin to formalize their algebraic representation of expressions, writing expressions with exponents, with variables (where letters represent numbers), and using math vocabulary to describe operations and parts of expressions. They will write equivalent expressions using the distributive property and combining like terms. Additionally, students will evaluate expressions with exponents using the proper order of operations. | **6.EE.1, 2, 3, 4** |
| **Unit 6 - Equations and Inequalities** |  | In this unit, students will begin to formalize the concept of an equation as a number sentence that answers a question as to what number will create a true statement. They will solve one-step equations and inequalities with all non-negative integers, and they will write equations and inequalities from context to solve problems. | **6.EE.5, 6, 7, 8, 9*****Discovery Ed Lessons: 7.1, 7.2, 8.1, 8.2, 9.1*** |
| **Unit 7 - Geometry** |  | In this unit, students will understand the concept of area and use the concept and formulas to find the area of triangles, rectangles, and other shapes composed of triangles and rectangles. They will build on this conceptual understanding to develop the formula for the volume of right, rectangular prisms and find surface area using nets. | **6.G.1, 2, 4*****Discovery Ed Lessons: 12.1, 12.2, 13.1, 13.2*** |
| **Unit 8 - Statistics** |  | Students will work with the center and spread of data, interpreting the difference between measures of center (mean and median) and spread (IQR and MAD). They will represent data on box plots, histograms, and dot plots, and they will use them to analyze the center and spread. | **6.SP.1, 2, 3, 4, 5*****Discovery Ed Lessons: 10.1, 10.2, 11.1, 11.2*** |