

**Sixth Grade Mathematics**  
**5/6/2020**

**Course Description:**

Students will understand ratios, apply and extend understandings with decimals, fractions, and integers, solve expressions and equations, solve real-world problems about area, surface area, and volume, and understand statistical variability.

**Big Ideas:**

1. Any number can be represented in multiple ways (fractions, decimals, percents, powers). You can make the math easier by choosing the best representation.
2. Ratios, fractions, percent and division are just different ways of representing the same process.
3. Start with ideas that we understand and extend those ideas to learn more advanced mathematical ideas. (We start out learning our facts and then use those facts to solve more detailed problems.)
4. Patterns exist in math. Numbers or objects repeat in predictable ways that allow us to explore relationships and make generalizations.

**Essential Learner Outcomes:**

| <b>ELO #</b> | <b>Essential Learner Outcome Description</b>  | <b>Standards</b>        |
|--------------|---|-------------------------|
| <b>1</b>     | Understand a ratio as a comparison of two quantities and represent these comparisons.                                   | 6.RP.A.1                |
| <b>2</b>     | Solve problems involving ratios and rates by solving unit rate problems.  | 6.RP.A.3.B              |
| <b>3</b>     | Find the greatest common factor and least common multiple.  | 6.NS.B.3.A              |
| <b>4</b>     | Demonstrate fluently with addition, subtraction, multiplication, and division of decimals.                              | 6.NS.B.2                |
| <b>5</b>     | Solve problems involving division of fractions by fractions.  | 6.NS.A.1.A              |
| <b>6</b>     | Solve problems by graphing points in all four quadrants of the Cartesian coordinate plane.                              | 6.GM.A.3.               |
| <b>7</b>     | Create and evaluate expressions involving variables and whole number exponents.   | 6.EE.A.2                |
| <b>8</b>     | Recognize that inequalities may have infinitely many solutions.   | 6.EE.B.5                |
| <b>9</b>     | Find the area of polygons by composing or decomposing the shapes into rectangles or triangles.                          | 6.GM.A.1                |
| <b>10</b>    | Understand and define measures of central tendency and use them to interpret patterns and deviations for a set of data. | 6.DSP.A.2<br>6.DSP.B.2c |