**Curriculum Coverage in 6th Grade Mathematics for the 2018-2019 School Year as Outlined by TN Standards.**

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| * **TN Standards Major Work of the Grade (70%):** * **Multiply and divide fractions** * **Apply system of rational numbers** * **Understand ratio concepts** * **Use ratio reasoning** * **Arithmetic with algebraic expressions** * **Solve one-variable equations and inequalities** * **Represent relationships between independent/dependent variables** | * **Supporting (30%):** * **Compute fluently with multi-digit numbers** * **Solve area, surface area, and volume problems** * **Understand statistical variability** * **Summarize and describe distributions** |

[**The Standards for Mathematical Practice**](http://www.corestandards.org/Math/Practice)

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| **MP1. Make sense of problems and persevere in solving them.** | **MP2. Reason abstractly and quantitatively.** | **MP3. Construct viable arguments and critique the reasoning of others.** | **MP4. Model with mathematics.** |
| **MP5. Use appropriate tools strategically.** | **MP6. Attend to precision.** | **MP7. Look for and make use of structure.** | **MP8. Look for and express regularity in repeated reasoning.** |

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| **TN Standards** | **Learning Outcomes** | **Instructional Focus** | **Content** |
| **Number Systems** | | | |
| **6.NS.C.8** Solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane. Include use of coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate. | I can find the distance between two points on a graph, using numbers from real-life scenarios. | ENTER HERE | **Go Math Lesson:**  Lesson 14.1 Distance in the Coordinate Plane (pg. 401)  **Engage NY Task:**  [Grade 6 Mathematics Module 3, Topic C](https://www.engageny.org/resource/grade-6-mathematics-module-3-topic-c-overview) (14.1) |
| **Ratios and Proportional Relationships** | | | |
| **6.RP.A.1** Understand the concept of aratio and use ratio language to describe a ratio relationship between two quantities. | I can use ratios to compare two quantities. | ENTER HERE | **Go Math Lesson:**  Lesson 6.1 Ratios (pg. 149)  **Engage NY Task:**  [Grade 6 Mathematics Module 1, Topic A](https://www.engageny.org/resource/grade-6-mathematics-module-1-topic-overview) (6.1)  [Grade 6 Mathematics Module 1, Topic B](https://www.engageny.org/resource/grade-6-mathematics-module-1-topic-b-overview) (6.1) |
| **6.RP.A.2** Understand the concept of a unit rate a/b associated with a ratio a:b with b not equal to 0. Use rate language in the context of a ratio relationship | I can use rates to compare quantities. | Students should extend their understanding of ratios to unit rates in contextual problems. Students should be able to distinguish between concepts of ratios, rates, and unit rates and explain their reasoning. Additionally, students should, interchangeably, understand and explain a real-world situation in ratio form and write the unit rate that describes the situation using precise/appropriate rate language with words and symbols to compare different units of measure. | **Go Math Lesson:**  Lesson 6.2 Rates (pg. 155)  **Engage NY Task:**  [Grade 6 Mathematics Module 1, Topic C](https://www.engageny.org/resource/grade-6-mathematics-module-1-topic-c-overview) (6.2) |
| **6.RP.A.3** Use ratio and rate reasoning to solve real-world and mathematical problems (e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations).   1. Make tables of equivalent ratios relating quantities with whole number measurements, find missing values in the tables, and plot the pairs of values on the coordinate plane. Use tables to compare ratios. | I can use ratios and rates to make comparisons and predictions.  I can represent real-world problems involving ratios and rates with tables and graphs.  I can solve problems involving proportions. | ENTER HERE | **Go Math Lesson:**  Lesson 6.3 Using Ratios and Rates to Solve Problems (pg. 161)  Lesson 7.1 Ratios, Rates, Tables, and Graphs (pg. 173)  Lesson 7.2 Solving Problems with Proportions (pg. 179)  **Engage NY Task:**  Grade 6 Mathematics Module 1, Topic A (6.3, 7.1 and 7.2)  [Grade 6 Mathematics Module 1, Topic B](https://www.engageny.org/resource/grade-6-mathematics-module-1-topic-b-overview) (6.3 and 7.1)  [Grade 6 Mathematics Module 1, Topic C](https://www.engageny.org/resource/grade-6-mathematics-module-1-topic-c-overview) (7.2) |
| **6.RP.A.3b** Solve unit rate problems including those involving unit pricing and constant speed. | I can represent real-world problems involving ratios and rates with tables and graphs. | ENTER HERE | **Go Math Lesson**  Lesson 7.1 Ratios, Rates, Tables, and Graphs (pg. 173)  **Engage NY Task:**  Grade 6 Mathematics Module 1, Topic A (7.1)  [Grade 6 Mathematics Module 1, Topic B](https://www.engageny.org/resource/grade-6-mathematics-module-1-topic-b-overview) (7.1) |
| **6.RP.A.3c** Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 of that quantity); solve problems involving finding whole, given a part and the percent. | I can write a ratio as a percent.  I can write equivalent percents, fractions, and decimals.  I can solve problems involving percents. | ENTER HERE | **Go Math Lesson**  Lesson 8.1 Understanding Percents (pg. 203)  Lesson 8.2 Percents, Fractions, and Decimals (pg. 209)  Lesson 8.3 Solving Percent Problems (pg. 215)  **Engage NY Task:**  [Grade 6 Mathematics Module 1, Topic D](https://www.engageny.org/resource/grade-6-mathematics-module-1-topic-d-overview) (8.1, 8.2 and 8.3) |
| **6.RP.A.3.d** Use ratio reasoning to convert customary and metric measurement units (within the same system); manipulate and transform units appropriately when multiplying or dividing quantities. | I can convert units within a measurement system.  I can use ratios and proportions to convert measurements. | ENTER HERE | **Go Math Lesson**  Lesson 7.3 Converting Within Measurement Systems (pg. 185)  Lesson 7.4 Converting Between Measurement Systems (pg. 191) |
| **Expressions and Equations** | | | |
| **6.EE.A.1** Write and evaluate numerical expressions involving whole number exponents | I can use exponents to represent numbers.  I can write the prime factorization of a number. | ENTER HERE | **Go Math Lesson**  9.1 Exponents (pg. 237)  9.2 Prime Factorization (pg. 243)  **Engage NY Task:**  [Grade 6 Mathematics Module 4, Topic B](https://www.engageny.org/resource/grade-6-mathematics-module-4-topic-b-overview) (9.1)  [Grade 6 Mathematics Module 2, Topic D](https://www.engageny.org/resource/grade-6-mathematics-module-2-topic-d-overview) (9.2) |