# CAR Unit Template

## Unit Title: Mathematics – Exponents, Irrational Numbers, and Linear Equations – Unit 1 – Module B

**Grade level: Grade 8**

**Timeframe:**

## Essential Questions

## Standards

### Standards (Taught and Assessed):

**8.EE.A.1** Know and apply the properties of integer exponents to generate equivalent numerical expressions. *For example, 3² × 3⁻⁵ = 3⁻³ =1/3³ = 1/27.*

**8.EE.A.3** Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. *For example, estimate the population of the United States as 3 × 108 and the population of the world as 7 × 109, and determine that the world population is more than 20 times larger.*

**8.EE.A.4** Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.

**Key**: Major Cluster Supporting Cluster Additional Cluster

### Highlighted Career Ready Practices and 21st Century Themes/Skills

### Social-Emotional Learning Competencies

## Instructional Plan

Pre-Assessment and Reflection

| **Pre-Assessment** | **Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections** |
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Student Learning Objectives (SLO), Strategies, Formative Assessment, Activities and Resources (add rows as needed)

| **SLO – WALT**  **We are learning to/that** | **Student Strategies** | **Formative Assessment** | **Activities and Resources** | **Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections** |
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| **8.EE.A.1 – WALT** know the properties of integer exponents |  |  |  |  |
| **8.EE.A.1 – WALT** determine whether two numerical expressions involving integer exponents are equivalent |  |  |  |  |
| **8.EE.A.1 – WALT** generate equivalent expressions using the properties of exponents |  |  |  |  |
| **8.EE.A.3 – WALT** estimate a very large or very small number as a single digit times an integer power of ten |  |  |  |  |
| **8.EE.A.3– WALT** express how many times larger one quantity is compared to another when written as a single digit times an integer power of ten |  |  |  |  |
| **8.EE.A.4 – WALT** add, subtract, multiply, and divide numbers expressed in scientific notation |  |  |  |  |
| **8.EE.A.4 – WALT** add, subtract, multiply, and divide numbers where one is expressed in decimal notation and the other is expressed in scientific notation |  |  |  |  |
| **8.EE.A.4 – WALT** choose appropriate units to represent measurements of very large or very small quantities |  |  |  |  |
| **8.EE.A.1 – WALT** interpret scientific notation generated by technology as a number multiplied by a power of ten |  |  |  |  |

Benchmark Assessment 1

| **Benchmark Assessment** | **Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections** |
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Benchmark Assessment 2

| **Benchmark Assessment** | **Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections** |
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Summative Assessments (add rows as needed)

| **Summative Assessment** | **Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections** |
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Interdisciplinary Connections

| **Interdisciplinary Connections** | **Modifications (ELL, Special Education, Gifted, At-risk of Failure, 504) and Reflections** |
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