# CAR Unit Template

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

**Grade level: Grade 8**

**Timeframe:**

## Essential Questions

## Standards

### Standards (Taught and Assessed):

**8.EE.C.7** Solve linear equations in one variable.

a. Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form *x* = *a*, *a* = *a*, or *a* = *b* results (where *a* and *b* are different numbers).

b. Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.

**8.EE.A.2** Use square root and cube root symbols to represent solutions to equations of the form *x²* = *p* and *x³* = *p*, where *p* is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that √2 is irrational.

**8.G.C.9** Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.

**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.C.7a. – WALT** a linear equation in one variable can result in one solution, infinitely many solutions, or no solution |  |  |  |  |
| **8.EE.C.7a. – WALT** show which of these outcomes is the case by transforming the original equation into the form *x* = *a*, *a* = *a*, or *a* = *b* |  |  |  |  |
| **8.EE.C.7b. – WALT** solve linear equations in one variable with rational number coefficients, including equations that require expanding expressions using the distributive property and combining like terms |  |  |  |  |
| **8.EE.A.2 – WALT** use square root and cube root symbols to represent solutions to equations in the form *x²* = *p* and *x³* = *p* |  |  |  |  |
| **8.EE.A.2 – WALT** evaluate square roots of small perfect squares and cube roots of small perfect cubes |  |  |  |  |
| **8.EE.A.2 – WALT** √2 is an irrational number |  |  |  |  |
| **8.G.C.9 – WALT** apply the formulas for volume of a cone, cylinder, or sphere in a real-world context |  |  |  |  |
| **8.G.C.9 – WALT** calculate the volume of a cone, cylinder, or sphere |  |  |  |  |
| **8.G.C.9 – WALT** find a missing dimension of a cone, cylinder or sphere given its volume |  |  |  |  |

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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