**SASD Curriculum Map** **Content Area: Mathematics** **Course: 8th Grade Algebra 1**

| | | | |
|---|---|---|---|
| **UNIT Title/Focus** | **Coordinate Geometry/Geometry** | **TIME OF YEAR/LENGTH** *(E.G. Oct-Nov/3 weeks)* | **Sept-Oct / 5 Weeks**<br>**Sept-May / 34 Weeks (Study Island Rotations)** |
| **DRIVING QUESTION(S)** | **How will you use rate of change to write, solve and/or interpret an equation in point-slope form, slope-intercept form, and/or standard form?**<br>**How will you describe the effects of different kinds of transformations?**<br>**How will the Pythagorean theorem apply to real life situations?** | | |
| **CONTENT VOCABULARY** | **Chord; Cone; Congruent; Cylinder; Dilation; Hypotenuse; Point-Slope Form; Pythagorean Theorem; Reflection; "Rise over the Run"; Rotation; Similar; Slope; Slope Formula; Slope-Intercept Form; Sphere; Standard (General) Form; Transformation; Translation; y-intercept.** | | |

| TOPIC | ELIGIBLE CONTENT/ STANDARDS | OBJECTIVES | ASSESSMENT | RESOURCES |
|---|---|---|---|---|
| Rate of Change | **A1.2.2.1.1**<br>Identify, describe, and/or use constant rates of change.<br>**A1.2.2.1.2**<br>Apply the concept of linear rate of change (slope) to solve problems. | Students will be able to identify, generate, and use rates of change to solve and graph problems. | Repetition/practice<br>Frequent checks for understanding<br>Quizzes<br>In-Class Assignments<br>"Anchor" Flashcards / End of Year "Anchors" Test<br>"Vocabulary" Flashcards / frequent Vocabulary Quizzes<br>DI Activities | Warm-up Openers<br>Study Island<br>Calculator<br>Textbook<br>"Notes" Handouts<br>Worksheets<br>"Peers" helping "Peers" |
| Write or Identify a Linear Equation | **A1.2.2.1.3**<br>Write or identify a linear equation when given the graph of the line, two points on the line, or the slope and a point on the line.<br>Note: Linear equation may be in point-slope, standard, and/or slope-intercept form.<br>**A1.2.2.1.4**<br>Determine the slope and/or *y*-intercept represented by a linear equation or graph.<br>**M08.C-G.1.1.1**<br>Identify and apply properties of rotations, | Students will be able to identify, write, solve, graph, and/or interpret an equation in point-slope form, slope-intercept form, and/or standard (general) form. | | |

**SASD Curriculum Map** **Content Area: Mathematics** **Course: 8th Grade Algebra 1**

| | | | |
|---|---|---|---|
| **UNIT Title/Focus** | **Coordinate Geometry/Geometry** | **TIME OF YEAR/LENGTH** *(E.G. Oct-Nov/3 weeks)* | **Sept-Oct / 5 Weeks**<br>**Sept-May / 34 Weeks (Study Island Rotations)** |
| **DRIVING QUESTION(S)** | **How will you use rate of change to write, solve and/or interpret an equation in point-slope form, slope-intercept form, and/or standard form?**<br>**How will you describe the effects of different kinds of transformations?**<br>**How will the Pythagorean theorem apply to real life situations?** | | |
| **CONTENT VOCABULARY** | **Chord; Cone; Congruent; Cylinder; Dilation; Hypotenuse; Point-Slope Form; Pythagorean Theorem; Reflection; "Rise over the Run"; Rotation; Similar; Slope; Slope Formula; Slope-Intercept Form; Sphere; Standard (General) Form; Transformation; Translation; y-intercept.** | | |

| TOPIC | ELIGIBLE CONTENT/ STANDARDS | OBJECTIVES | ASSESSMENT | RESOURCES |
|---|---|---|---|---|
| Object Transformations/ Similarity and Congruence | reflections, and translations.<br>**M08.C-G.1.1.3**<br>Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.<br>**M08.C-G.1.1.2**<br>Given two congruent figures, describe a sequence of transformations that exhibits the congruence between them.<br>**M08.C-G.1.1.4**<br>Given two similar two-dimensional figures, describe a sequence of transformations that exhibits the similarity between them. | Students will be able to describe a sequence of transformations using coordinates, similarity, and congruence. | | |

**SASD Curriculum Map** **Content Area: Mathematics** **Course: 8th Grade Algebra 1**

| | | | |
|---|---|---|---|
| **UNIT Title/Focus** | **Coordinate Geometry/Geometry** | **TIME OF YEAR/LENGTH** *(E.G. Oct-Nov/3 weeks)* | **Sept-Oct / 5 Weeks**<br>**Sept-May / 34 Weeks (Study Island Rotations)** |
| **DRIVING QUESTION(S)** | **How will you use rate of change to write, solve and/or interpret an equation in point-slope form, slope-intercept form, and/or standard form?**<br>**How will you describe the effects of different kinds of transformations?**<br>**How will the Pythagorean theorem apply to real life situations?** | | |
| **CONTENT VOCABULARY** | **Chord; Cone; Congruent; Cylinder; Dilation; Hypotenuse; Point-Slope Form; Pythagorean Theorem; Reflection; "Rise over the Run"; Rotation; Similar; Slope; Slope Formula; Slope-Intercept Form; Sphere; Standard (General) Form; Transformation; Translation; y-intercept.** | | |

| TOPIC | ELIGIBLE CONTENT/ STANDARDS | OBJECTIVES | ASSESSMENT | RESOURCES |
|---|---|---|---|---|
| Pythagorean Theorem | **M08.C-G.2.1.1**<br>Apply the converse of the Pythagorean theorem to show a triangle is a right triangle.<br>**M08.C-G.2.1.2**<br>Apply the Pythagorean theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions. (Figures provided for problems in three dimensions will be consistent with Eligible Content in grade 8 and below.)<br>**M08.C-G.2.1.3**<br>Apply the Pythagorean theorem to find the distance between two points in a coordinate system. | Students will be able to find the side length of a right triangle by applying the Pythagorean theorem, as well as determine if a triangle is a right triangle by applying the converse of the Pythagorean theorem. | | |

**SASD Curriculum Map** **Content Area: Mathematics** **Course: 8th Grade Algebra 1**

| | | | |
|---|---|---|---|
| **UNIT Title/Focus** | **Coordinate Geometry/Geometry** | **TIME OF YEAR/LENGTH** *(E.G. Oct-Nov/3 weeks)* | **Sept-Oct / 5 Weeks**<br>**Sept-May / 34 Weeks (Study Island Rotations)** |
| **DRIVING QUESTION(S)** | **How will you use rate of change to write, solve and/or interpret an equation in point-slope form, slope-intercept form, and/or standard form?**<br>**How will you describe the effects of different kinds of transformations?**<br>**How will the Pythagorean theorem apply to real life situations?** | | |
| **CONTENT VOCABULARY** | **Chord; Cone; Congruent; Cylinder; Dilation; Hypotenuse; Point-Slope Form; Pythagorean Theorem; Reflection; "Rise over the Run"; Rotation; Similar; Slope; Slope Formula; Slope-Intercept Form; Sphere; Standard (General) Form; Transformation; Translation; y-intercept.** | | |

| TOPIC | ELIGIBLE CONTENT/ STANDARDS | OBJECTIVES | ASSESSMENT | RESOURCES |
|---|---|---|---|---|
| Volume | **M08.C-G.3.1.1**<br>Apply formulas for the volumes of cones, cylinders, and spheres to solve real-world and mathematical problems. **Formulas will be provided.** | Students will be able to apply formulas to find the volumes of cones, cylinders, and spheres. | | |
| | | | | |

**SASD Curriculum Map** **Content Area: Mathematics** **Course: 8th Grade Algebra 1**

| | | | |
|---|---|---|---|
| **UNIT Title/Focus** | **Coordinate Geometry/Geometry** | **TIME OF YEAR/LENGTH** *(E.G. Oct-Nov/3 weeks)* | **Sept-Oct / 5 Weeks**<br>**Sept-May / 34 Weeks (Study Island Rotations)** |
| **DRIVING QUESTION(S)** | **How will you use rate of change to write, solve and/or interpret an equation in point-slope form, slope-intercept form, and/or standard form?**<br>**How will you describe the effects of different kinds of transformations?**<br>**How will the Pythagorean theorem apply to real life situations?** | | |
| **CONTENT VOCABULARY** | **Chord; Cone; Congruent; Cylinder; Dilation; Hypotenuse; Point-Slope Form; Pythagorean Theorem; Reflection; "Rise over the Run"; Rotation; Similar; Slope; Slope Formula; Slope-Intercept Form; Sphere; Standard (General) Form; Transformation; Translation; y-intercept.** | | |

| TOPIC | ELIGIBLE CONTENT/ STANDARDS | OBJECTIVES | ASSESSMENT | RESOURCES |
|---|---|---|---|---|
| | | | | |
| | | | | |