

8th Grade Common Core Curriculum Map: (121 days)

Unit #1: Algebra: Equations and Graphing (13 days)

Resources: Big Ideas Chapter 1

Common Core Standards: 8.EE.7a-b

Number	Learning Targets	Common Core Standard	Resources
1	I can solve one and two step equations.	8.EE.7a; 8.EE.7b	1.1 (Extra)
2	I can solve multi-step equations.	8.EE.7a; 8.EE.7b	1.2
3	I can solve equations with variables on both sides.	8.EE.7a; 8.EE.7b	1.3
4	I can determine whether equations have no solution or infinitely many solutions.	8.EE.7a; 8.EE.7b	1.3 (Extra)
5	I can rewrite equations to solve for a different variable.	8.EE.7	1.4

Unit #2: Algebra: Graphing (17 days)

Resources: Big Ideas Chapter 4

Common Core Standards: 8.EE.5; 8.EE.6; 8.F.4

Number	Learning Targets	Common Core Standard	Resources
1	I can graph linear equations from a table.	8.EE.5	4.1
2	I can find the slope of lines by using two points or from tables.	8.EE.6	4.2
3	I can identify parallel and perpendicular lines. (1 day)	8.EE.6	4.2
4	I can write and graph proportional relationships.	8.EE.5; 8.EE.6	4.3
5	I can graph linear equations written in slope intercept form.	8.EE.6	4.4
6	I can graph linear equations written in standard form	8.EE.6	4.5
7	I can write equations of lines in slope intercept form.	8.F.4	4.6

Unit #3: Systems and Functions (11 days)

Resources: Big Ideas: Chapter 5

Common Core Standards: 8.EE.7a-b; 8.EE.8a-c

Number	Learning Targets	Common Core Standard	Resources
1	I can write and solve systems of linear equations by graphing.	8.EE.8a-c	5.1
2	I can write and solve systems of linear equations by substitution.	8.EE.8b-c	5.2
3	I can write and solve systems of linear equations by elimination	8.EE.8b-c	5.3
4	I can write and solve systems of linear equations in word problems	8.EE.8b-c	Extra

Unit #4: Functions and Scatterplots (18 days)**Resources: Big Ideas: Chapters 6 and 9****Common Core Standards: 8.F.1; 8.F.2; 8.F.3; 8.F.4; 8.F.5; 8.SP.1; 8.SP.2; 8.SP.3; 8.SP.4**

Number	Learning Targets	Common Core Standard	Resources
1	I can determine whether relations are functions. (1 day)	8.F.1	6.1
2	I can write a function rule.	8.F.1	6.2
3	I can compare linear functions and write linear functions using graphs or tables.	8.F.2; 8.F.3; 8.F.4	6.3
4	I can identify and compare linear and nonlinear functions from tables or graphs.	8.F.3	6.4
5	I can analyze and sketch graphs to show the relationship between two quantities. (1 day)	8.F.5	6.5
6	I can construct, describe, and interpret scatter plots.	8.SP.1	9.1
7	I can find lines of best fit to solve problems.	8.SP.1; 8.SP.2; 8.SP.3	9.2
8	I can read, make, and interpret two-way tables. (1 day)	7.SP.5; 7.SP.6; 7.SP.7a-b	9.3
9	I can choose appropriate data displays and identify misleading data displays.	8.SP.1	9.4

Unit #5: Exponents and Scientific Notation (17 days)**Resources:** Big Ideas Chapter 10**Common Core Standards:** 8.EE.1; 8.EE.3; 8.EE.4

Number	Learning Targets	Common Core Standard	Resources
1	I can write and evaluate expressions using exponents.	8.EE.1	10.1
2	I can use exponent rules to find a power of a power.	8.EE.1	10.2
3	I can use exponent rules to simplify expressions involving the quotient of powers.	8.EE.1	10.3
4	I can evaluate expressions involving zero and negative integer exponents.	8.EE.1	10.4
5	I can identify, write and compare numbers in scientific notation.	8.EE.3; 8.EE.4	10.5
6	I can write large and small numbers in scientific notation.	8.EE.3; 8.EE.4	10.6
7	I can add, subtract, multiply and divide numbers written in scientific notation.	8.EE.3; 8.EE.4	10.7

Unit #6: Square Roots and Pythagorean Theorem (11 days)**Resources: Big Ideas: Chapter 7****Common Core Standards: 8.NS.1; 8.NS.2; 8.EE.2; 8.G.6; 8.G.7; 8.G.8**

Number	Learning Targets	Common Core Standard	Resources
1	I can find square roots and use them in evaluating expressions and solving equations. (1 day)	8.EE.2	7.1
2	I can find cube roots and use them in evaluating expressions and solving equations. (1 day)	8.EE.2	7.2
3	I can understand and use the Pythagorean Theorem to find missing side lengths of right triangles.	8.EE.2; 8.G.6; 8.G.7; 8.G.8	7.3
4	I can approximate square roots.	8.NS.1; 8NS.2; 8.EE.2	7.4
5	I can use the Pythagorean Theorem to find distances in a coordinate plane.	8.EE.2; 8.G.6; 8.G.7; 8.G.8	7.5

Unit #7: Geometry Part 1 (19 days)**Resources: Big Ideas Chapters 3 and 8****Common Core Standards: 8.G.5; 8.G.9**

Number	Learning Targets	Common Core Standard	Resources
1	I can identify and measure angles formed when parallel lines are cut by a transversal.	8.G.5	3.1
2	I can find the measures of interior and exterior angles of triangles.	8.G.5	3.2
3	I can find the measures of interior and exterior angles of polygons.	8.G.5	3.3
4	I can identify similar triangles and use indirect measurement to find missing measures.	8.G.5	3.4
5	I can find the volume of cylinders and solve for missing dimensions given the volume.	8.G.9	8.1
6	I can find the volume of cones and solve for missing dimensions given the volume.	8.G.9	8.2
7	I can find the volume of spheres and solve for missing dimensions given the volume.	8.G.9	8.3
8	I can identify similar solids and find missing measures from similar solids.	8.G.9	8.4

Unit #8: Geometry Part 2 (15 days)**Resources: Big Ideas Chapter 2****Common Core Standards: 8.G.1; 8.G.2; 8.G.3; 8.G.4**

Number	Learning Targets	Common Core Standard	Resources
1	I can identify congruent figures and name corresponding angles and sides.	8.G.2	2.1
2	I can identify translations and translate figures in the coordinate plane. (1 day)	8.G.1; 8.G.2; 8.G.3	2.2
3	I can identify reflections and reflect figures using the x and y axis. (1 day)	8.G.1; 8.G.2; 8.G.3	2.3
4	I can identify rotations and rotate figures in the coordinate plane.	8.G.1; 8.G.2; 8.G.3	2.4
5	I can identify similar figures, name corresponding sides and angles, and find unknown measures.	8.G.4	2.5
6	I understand the relationship between perimeter, area, and similar figures	8.G.4	2.6
7	I can identify dilations and dilate figures in a coordinate plane.	8.G.3; 8.G.4	2.7