Smart Goal: Improve results of open ended questions (Part II, III, IV) to improve proficiency rates by 2%.

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| **Teacher Name: Homerda//Mancini** | | **Course Name: Geometry** | | | | **Quarter: 1** |
| **Unit Name** | | **Learning Targets** | | | | |
| Unit 0: Filling in the Gaps and the Essentials of Virtual Learning. | | \* I can independently navigate through my hybrid classroom.  \* I can write the equation of a line.  \* I can identify basic geometric figures.  \* I can determine the area, perimeter and volume of basic geometric figures and round appropriately.  \* I can graph linear equations. | | | | |
| **Date Range** *(one week intervals):* | | | | | | | |
| **Essential Learning Skills:**   1. Analyze text or data strategically for: understanding, connections, structures, essential information, and annotation.   3. Develop, use, and align common language in Vocabulary  4. Organize information/See relationships, patterns/Use Models of Organization/Plan  Real World Applications: | | | | | | | |
| **Unit Name** | **Content Learning Targets** *(with standards coding if applicable)* | | | **Skills Learning Targets Derived from the Standards** *(include standards coding)* | | | |
| Unit 1: Geometric Relationships and Constructions | G.CO.9: Prove theorems about lines and angles.  G.CO.10: Prove theorems about triangles.  G.CO.12: Make formal geometric constructions with a variety of tools and methods.  G.CO.13: Construct an equilateral triangle, square, and a regular hexagon inscribed in a circle. | | | G.CO.9:  \* I can identify, draw, define all angle relationships and set up and solve algebraic problems associated with each  \* I can identify, draw, define parallel and perpendicular lines and use properties of each to solve algebraic problems  G.CO.10  \* I can prove theorems about triangles.  Solving Linear Equations  G.CO.12:  \* I can perform geometric constructions using a straight edge and compass  \* I can apply definitions, properties and theorems about lines and angles to support constructions  G.CO.13:  \* I can construct an equilateral triangle, square, and a regular hexagon inscribed in a circle | | | |
| **Core Vocabulary** | | | **Check-In** *(this column is to note how and when you will assess these learning targets—please note* ***CFAs*** *and* ***summative****)* | | **Resources/texts used by teacher** *(and include several across quarter for families/students)* | | |
| Point, Line, Plane, Collinear, Non-collinear, Segment, Perpendicular, Parallel, Ray, Opposite Ray, Congruent, Vertical, Straight Angle, Right Angle, Complementary Angles, Supplementary Angles, Linear Pairs, Angles, Angles on a Line, Angles about a Point, Interior, Exterior, Transversal, Alternate, Corresponding, Auxiliary, Bisector, Equidistant, Skew  Triangle, Acute, Obtuse, Scalene, Isosceles, Equilateral, Equiangular, Right, Hypotenuse, Remote Angles, Vertex, Base Angles, Legs, Triangle Inequality, Range, Regular Polygon, Conditional, Converse, Inverse, Contrapositive, Logically Equivalent, Corresponding Parts, Quadrilateral, Pentagon, Hexagon, Septagon/Heptagon, Octagon, Nonagon, Decagon, Undecagon, Dodecagon, Inscribed, Circumscribed.  Straight edge, Compass, Concurrency, Intersection, Bisector, Midpoint, Median, Equidistant, Perpendicular, Parallel, Altitude, Polygon, | | | Do Now, Exit Tickets  Daily Homework  Frayer Model Worksheets  Quizzes  Unit Test | | Mathbits.com, schoology, jmap.org, regentsprep.org, AMSCO Regents Geometry textbook | | |
| **Date Range** *(two week intervals):* | | | | | | | |
| **Essential Learning Skills:**  **1.** Analyze text or data strategically for: understanding, connections, structures, essential information, and annotation   **2.** Develop an argument or claim and support it with details and evidence.  5. Communicate clearly and effectively in reading, writing, speaking and listening/Collaborate  9. Apply background and content knowledge to skills/Demonstrate | | | | | | | |
| **Unit Name** | **Content Learning Targets** *(with standards coding if applicable)* | | | **Skills Learning Targets Derived from the Standards** *(include standards coding)* | | | |
| Unit 2:  Transformations | G.CO.2: Represent transformation in the plane using e.g. transparencies and geometry software; describe transformations as function that take points in the plane as inputs and give other points as outputs. Compare transformations that preserve distance and angle to those that do not (translation vs horizontal stretch)  G.CO.3: Given a rectangle, parallelogram, trapezoid, or regular polygon, describe the rotation and reflections that carry it onto itself. Trapezoid is defined as “A quadrilateral with at least one pair of parallel sides.”  G.CO.5: Given a geometric figure and a rotation, reflection, or translation, draw the transformed figure using graph paper, tracing paper or geometry software. Specifically a sequence of transformations that will carry a given figure onto another  G.CO.6: Use geometric descriptions of rigid motions to transform figures and to predict the effect of a given rigid motion on a given figure; given two figures, use the definition of congruence in terms of rigid motions to decide if they are congruent  G.SRT.1: Verify experimentally the properties of dilations given by a center and a scale factor (a) A dilation takes a line not passing though the center of the dilation to a parallel line, and leave the line passing through the center unchanged (b) The dilation of a line segment is longer or shorter in the ratio given by the scale factor | | | G.CO.2:  \* I can describe the different types of transformations including translations, reflections, rotations and dilations  \* I can describe/explain transformations as functions hat take points in the coordinate plane as inputs and give other points as outputs  \* I can write functions to represent transformations  \* I can compare transformations that preserve distance and angle to those that do not  G.CO.3:  \* I can describe the rotations and/or reflections that carry it onto itself given a rectangle, parallelogram, trapezoid, or regular polygon  G.CO.5:  \* I can draw the transformed figure given a geometric figure and a sequence of transformations  \* I can specify the sequence of transformations that were used to carry the given figure onto the other  G.CO.6:  \* I can define congruence in terms of rigid motions (i.e. two figures are congruent in there exists a rigid motions, or composition of rigid motions, that can take one figure to the second)  \* I can describe rigid motion transformations and predict the effect of a given rigid motion  \* I can, given two figures, use the definition of congruence in terms of rigid motion to decide if they are congruent  G.SRT.1:  \* I can identify a dilation stating its scale factor and center  \* I can verify that a given dilation takes a line not passing through the center of the dilation to a parallel line, or leaves a line passing through the center unchanged  \*Will incorporate corresponding Constructions. | | | |
| **Core Vocabulary** | | | **Check-In** *(this column is to note how and when you will assess these learning targets—please note* ***CFAs*** *and* ***summative****)* | | **Resources/texts used by teacher** *(and include several across quarter for families/students)* | | |
| Vertical, horizontal, transformation, rotation, dilation, rigid motion, congruent, congruency, scale factor, parallel, perpendicular, similar, center of dilation, reflection, translation, glide reflection, composition, image, preimage, isometry, direct isometry, opposite isometry, line symmetry, point symmetry, rotational symmetry, line reflection, point reflection, order of rotation, positive/negative rotation, sequence of transformations, function, | | | Do Now, Exit Tickets  Daily Homework  Frayer Model Worksheets  Quizzes  Unit Test | | Mathbits.com, schoology, jmap.org, regentsprep.org, AMSCO Regents Geometry textbook | | |
| Marking Period 2 | | | | | | | |
| **Teacher Name: Homerda/Mancini** | | **Course Name: Geometry** | | | | **Quarter: 2** |  |
| **Date Range** *(two week intervals):* | | | | | | | |
| **Essential Learning Skills:**  **2.** Develop an argument or claim and support it with details and evidence  3. Develop, use, and align common language in Vocabulary  5. Communicate clearly and effectively in reading, writing, speaking and listening/Collaborate  6. Make inferences and predictions/Summarize | | | | | | | |
| **Unit Name** | **Content Learning Targets** *(with standards coding if applicable)* | | | **Skills Learning Targets Derived from the Standards** *(include standards coding)* | | | |
| Unit 3:  Congruent Triangles | G.CO.1 Know precise definitions of angle, circle, perpendicular line, parallel line, and line segment.  G.CO.9 Prove theorems about lines and angles  G.CO.10 Prove theorems about triangles  G.SRT. 5 Use congruence criteria for triangles to prove relationships in triangles | | | G.CO.10 I can write a complete and correct 2 column proof that includes a concluding statement and reason  G.SRT.5 I can prove triangles congruent by given angles and sides by one of 5 acceptable methods and vise versa. | | | |
| **Core Vocabulary** | | **Check-In** | | | **Resources/texts used by teacher** | | |
| Statement, reason, hashmarks, arcs, congruency, theorems, postulates, perpendicular lines, parallel lines, bisector, median, altitude, linear pairs of angles, angles about a point, angles on one side of a line, reflexive postulate, symmetric postulate, transitive postulate, substitution postulate, addition postulate, subtraction postulate, multiplication postulate, division postulate, partition postulate  SAS, SSS, AAS,ASA, HL, Congruent Triangles, Corresponding parts, overlapping triangles | | Do Now, Exit Tickets  Regents Reviews  Daily Homework  Frayer Model Worksheets  Quizzes  Unit Test | | | Mathbits.com, schoology, jmap.org, regentsprep.org, AMSCO Regents Geometry textbook | | |

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| **Date Range** *(one week intervals):* | | | | | | | |
| **Essential Learning Skills:**   1. Analyze text or data strategically for: understanding, connections, structures, essential information, and annotation   3. Develop, use, and align common language in Vocabulary  7. Identify main idea, theme, key phrases and issues | | | | | | | |
| **Unit Name** | **Content Learning Targets** *(with standards coding if applicable)* | | | **Skills Learning Targets Derived from the Standards** *(include standards coding)* | | | |
| Unit 4: Similar Triangles | G.SRT.1a A dilation takes a line not passing thru the center of the dilation to a parallel line and leaves a line passing thru the center of dilation the same line  G.SRT.1b The dilation of a line segment is longer or shorter by the ration given in the scale factor  G.SRT.4 Prove theorems about triangles  G.SRT.5 Use congruence and similarity criteria to solve problems and to prove relationships in geometric figures. | | | G.SRT.1 I can write the equation of a dilated line given the equation of the original line, center of dilation and scale factor  G.SRT.4 I can write a complete and correct 2 column proof that includes a concluding statement and reason  G.SRT.5 I can set up an appropriate proportion for a given problem and solve to find a missing value. | | | |
| **Core Vocabulary** | | **Check-In** *(this column is to note how and when you will assess these learning targets—please note* ***CFAs*** *and* ***summative****)* | | | **Resources/texts used by teacher** *(and include several across quarter for families/students)* | | |
| Similar, ratio, proportion, means, extremes, mean proportional, geometric mean, AA, SAS, SSS, midsegment, median, medial triangle, altitude, leg, hypotenuse, projection, | | Do Now, Exit Tickets  Daily Homework  Regents Reviews  Frayer Model Worksheets  Quizzes  Unit Test | | | Mathbits.com, schoology, jmap.org, regentsprep.org, AMSCO Regents Geometry textbook | | |
| **Date Range** *(one week intervals):* | | | | | | | |
| **Essential Learning Skills:**   1. Organize information/See relationships, patterns/Use Models of Organization/Plan   8. Evaluate and Synthesize multiple sources of information/Research  9. Apply background and content knowledge to skills/Demonstrate  10. Think critically and creatively/Strategize/Problem Solve (multi-step) | | | | | | | |
| **Unit Name** | **Content Learning Targets** *(with standards coding if applicable)* | | | **Skills Learning Targets Derived from the Standards** *(include standards coding)* | | | |
| Unit 5: Right Triangle Trig | G.SRT.8: Use the Pythagorean Theorem to solve the right triangle in applied right triangles.  G.SRT.6 Understand that by similarity that side ratios and right triangles are properties of the angles in the triangle leading to the defs of trig ratios for acute angles  G.SRT.7 Explain and use the relationship between the Sine and Cosine of Complementary angles  G.SRT.8 Use trig ratios and the Pythagorean theorem to solve right triangles and applied problems. | | | G.SRT.8  \* I can perform operations on radicals and present the answer in simplest radical form  \* I can draw an appropriate right triangle diagram for a given word problem and use the Pythagorean theorem  G.SRT.6 I can write an appropriate trig ratio for a given labeled right triangle  G.SRT.7 I can find the measure of an acute angle of a right triangle given its complement  I can find a missing variable using cofunctions of a right triangle  G.SRT.8 I can find the measure of an angle or the length of a side of a right triangle using trig ratios and inverse trig ratios. | | | |
| **Core Vocabulary** | | **Check-In** *(this column is to note how and when you will assess these learning targets—please note* ***CFAs*** *and* ***summative****)* | | | **Resources/texts used by teacher** *(and include several across quarter for families/students)* | | |
| Pythagorean triple, hypotenuse, opposite leg, adjacent leg, radical, perfect squares, root, index, radicand, special right triangles, Sine, Cosine, Tangent, ratio, proportion, cofunctions, complementary, hypotenuse, opposite leg, adjacent leg, angle of elevation, angle of depression, inverse functions, | | Do Now, Exit tickets,  Regents Reviews, Daily Homework, Frayer Model,  Quizzes, Tests | | | Mathbits.com, schoology, jmap.org, regentsprep.org, AMSCO textbook | | |

Marking Period 3

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| **Teacher Name: Homerda/Mancini** | | | **Course Name: Geometry** | | | **Quarter: 3** |
| **Date Range** *(one week intervals):* | | | | | | | |
| **Essential Learning Skills:**  **4.**Organize information/See relationships, patterns/Use Models of Organization/Plan  9. Apply background and content knowledge to skills/Demonstrate  10. Think critically and creatively/Strategize/Problem Solve (multi-step) | | | | | | | |
| **Unit Name** | **Content Learning Targets** | | | **Skills Learning Targets Derived from the Standards** | | | |
| Unit 6:  Quadrilaterals and Quadrilateral Proofs | G.CO.11 Prove theorems about parallelograms | | | G.CO.11  \*I can state the properties of a given quadrilateral and I can classify a given quadrilateral.  \*I can write a complete and correct 2 column proof that includes a concluding statement and reason | | | |
| **Core Vocabulary** | | **Check-In** | | | **Resources/texts used by teacher** | | |
| Quadrilateral, parallelogram, rectangle , rhombus, square, trapezoid, isosceles trapezoid, kite, opposite angles, consecutive angles, diagonals, opposite sides, consecutive sides | | Do Now, Exit Tickets  Daily Homework  Regents Reviews  Frayer Model Worksheets  Quizzes  Unit Test | | | Mathbits.com, schoology, jmap.org, regentsprep.org, AMSCO Regents Geometry textbook | | |
| **Date Range** *(one week intervals):* | | | | | | | |
| **Essential Learning Skills:**  1. Analyze text or data strategically for: understanding, connections, structures, essential information, and annotation  9. Apply background and content knowledge to skills/Demonstrate  10. Think critically and creatively/Strategize/Problem Solve (multi-step) | | | | | | | |
| **Unit Name** | **Content Learning Targets** *(with standards coding if applicable)* | | | **Skills Learning Targets Derived from the Standards** *(include standards coding)* | | | |
| Unit 7:  Coordinate Geometry | G.PE.5: Prove the slope criteria for parallel and perpendicular lines and use them to solve geometric problems  G.PE.1: Derive the equation of a circle of given center and radius using the Pythagorean Theorem, complete the square to find the center and radius of a circle given by an equation | | | G.PE.5:  \* I can find the equation of a line parallel or perpendicular to a given line that passes through a given point  \* I can determine/explain why two given lines are parallel, perpendicular or neither  AI.A.REI.5  \* I can solve quadratic equations.  G.PE.1:  \* I can complete the square of a quadratic equation  \*I can derive the equation of a circle using the Pythagorean Theorem – given coordinates of the center and length of the radius  \* I can determine the center and radius by completing the square | | | |
| **Core Vocabulary** | | | **Check-In** *(this column is to note how and when you will assess these learning targets—please note* ***CFAs*** *and* ***summative****)* | | **Resources/texts used by teacher** *(and include several across quarter for families/students)* | | |
| Center, radius, derive, standard form, general form, center/radius form, complete the square, point/slope form, slope/intercept form, origin, | | | Do Now, Exit Tickets  Daily Homework  Frayer Model Worksheets  Quizzes  Unit Test | | Mathbits.com, schoology, jmap.org, regentsprep.org, AMSCO Regents Geometry textbook | | |
| **Date Range** *(two week intervals):* | | | | | | | |
| **Essential Learning Skills:**  2. Develop an argument or claim and support it with details and evidence  4. Organize information/See relationships, patterns/Use Models of Organization/Plan  5.Communicate clearly and effectively in reading, writing, speaking and listening/Collaborate | | | | | | | |
| **Unit Name** | **Content Learning Targets** *(with standards coding if applicable)* | | | **Skills Learning Targets Derived from the Standards** *(include standards coding)* | | | |
| Unit 8:  Coordinate Geometry Proofs | G.PE.4: Use coordinates to prove simple geometric theorems algebraically  G.CO.11: Prove theorems about parallelograms  G.PE.7: Use coordinates to computer perimeters of polygons and areas of triangles and rectangles (using the distance formula) | | | G.PE.4:  \* I can use coordinates to prove simple geometric theorems algebraically  G.CO.11:  \* I can classify types of quadrilaterals and identify properties of each  \* I can use properties of special quadrilaterals in a coordinate geometry proof  G.PE.7:  \* I can formulate a model of figures in contextual problems to compute area and/or perimeter | | | |
| **Core Vocabulary** | | | **Check-In** *(this column is to note how and when you will assess these learning targets—please note* ***CFAs*** *and* ***summative****)* | | **Resources/texts used by teacher** *(and include several across quarter for families/students)* | | |
| Quadrilateral, parallelogram, rectangle, square, rhombus, trapezoid, kite, isosceles trapezoid, coordinates, origin, vertices, perimeter, area, bisect, midpoint, decomposing, area of a sector, arc length, central angle, circumference, diameter, radius | | | Do Now, Exit Tickets  Daily Homework  Frayer Model Worksheets  Quizzes  Unit Test | | Mathbits.com, schoology, jmap.org, regentsprep.org, AMSCO Regents Geometry textbook | | |

Marking Period 4

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| **Teacher Name: Homerda/Mancini** | | | **Course Name: Geometry** | | | **Quarter: 4** |
| **Date Range** *(two week intervals):* | | | | | | | |
| **Essential Learning Skills:**  **1.** Analyze text or data strategically for: understanding, connections, structures, essential information, and annotation  **4.** Organize information/See relationships, patterns/Use Models of Organization/Plan  9. Apply background and content knowledge to skills/Demonstrate | | | | | | | |
| **Unit Name** | **Content Learning Targets** *(with standards coding if applicable)* | | | **Skills Learning Targets Derived from the Standards** *(include standards coding)* | | | |
| Unit 9 Circles | G.C.2 Identify and describe relationships among inscribed angles, radii, and chords  G.C.3 Prove properties of angles for a quadrilateral inscribed in a circle  G.C.5 Derive using similarity the fact that the length of the arc intercepted by an angle is proportional to the radius and derive the formula for area of a sector. | | | G.C.2 I can find the measures of angles of a circle given their intercepted arcs and vice versa.  I can find the lengths of segments of a circle using similarity.  G.C.3 I can find the measure of the angles of a quadrilateral inscribed in a circle  G.C.5 I can find the area of a sector of a circle given the radius and central angle and vice versa  I can determine the length of an arc given the radius and measure of the central angle and vice versa. | | | |
| **Core Vocabulary** | | **Check-In** *(this column is to note how and when you will assess these learning targets—please note* ***CFAs*** *and* ***summative****)* | | | **Resources/texts used by teacher** *(and include several across quarter for families/students)* | | |
| Radius, diameter, chord, tangent, secant, apothem, inscribed, central, circumscribed, arc, major arc, minor arc, intercepted arc, | | Do Now, Exit tickets,  Regents Reviews, Daily Homework, Frayer Model,  Quizzes, Tests | | | Mathbits.com, schoology, jmap.org, regentsprep.org, AMSCO textbook | | |
| **Date Range** *(two week intervals):* | | | | | | | |
| **Essential Learning Skills:**   1. Develop, use, and align common language in Vocabulary   8. Evaluate and Synthesize multiple sources of information/Research  10. Think critically and creatively/Strategize/Problem Solve (multi-step) | | | | | | | |
| **Unit Name** | **Content Learning Targets** *(with standards coding if applicable)* | | | **Skills Learning Targets Derived from the Standards** *(include standards coding)* | | | |
| Unit 10 Solid/3D geometry | G.GMD.3 Use volume formulas for cylinders, pyramids, cones and spheres to solve problems  G.GMD.4 Identify the shapes of 2 dimensional cross sections of 3 dimensional objects and identify three dimensional objects generated by rotations of 2 dimensional objects.  G.GMG.2 Apply concepts of density based on area and volume in modeling situations  G.GMG.3 Apply geometric methods to solve design problems | | | G.GMD.3 I can calculate the volume of a cylinder, cone, pyramid or sphere given it’s dimensions and vice versa  G.GMD.4 I can identify and draw the shape of a 2 dimensional cross section given a 3 dimensional object.  I can identify the 3 dimensional shape generated by the rotation of a 2 dimensional figure.  G.GMG.2 I can calculate the density of a 3 dimensional figure given the mass and volume dimensions.  I can calculate the population density given the population and area dimensions.  G.GMG.3 I can use density to solve a given design problem and determine the costs associated | | | |
| **Core Vocabulary** | | **Check-In** *(this column is to note how and when you will assess these learning targets—please note* ***CFAs*** *and* ***summative****)* | | | **Resources/texts used by teacher** *(and include several across quarter for families/students)* | | |
| Sphere, cone, pyramid, cylinder, prism, cross section, rotation, 2 dimensional, 3 dimensional, torus, density, population density, volume, area, metric system conversions, American system conversions, | | Do Now, Exit tickets,  Regents Reviews, Daily Homework, Frayer Model,  Quizzes, Tests | | | Mathbits.com, schoology, jmap.org, regentsprep.org, AMSCO textbook | | |