

Math Department Curriculum Map Template, 2018-19

Subject: CC Geometry and Honors Geometry

Textbook: McGraw Hill 2018 (Supplemental: eMathinstruction)

CC Geometry Regents Examination Breakdown:

- Congruence 27%–34%
- Similarity, Right Triangles, and Trigonometry 29%–37%
- Circles 2%–8%
- Expressing Geometric Properties with Equations 12%–18%
- Geometric Measurement & Dimensions 2%–8%
- Modeling with Geometry 8%–15%

| Marking Periods | Unit Title (Big Idea/Major Focus) | Topics/Skills | Evidence of Learning (Assessments) | Glencoe/McGraw Hill 2018 | E-Math Instruction | Additional Resources |
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| Marking Period 1 | <p>1. Tools of Geometry</p> <p>Enduring Understandings:</p> <ul style="list-style-type: none"> • The foundation of Geometry is four undefined terms from which definitions of terms are derived. • Congruent segments have equal measure • Congruent angles have equal measure • Line segment relationships are determined by length and direction on the coordinate plane. <p>Essential Questions:</p> <ul style="list-style-type: none"> • What does it mean for Geometric figures to be congruent? • How are constructions used to understand and be more precise about rigid motion transformations? • How are coordinates used to prove geometric relationships? | <ul style="list-style-type: none"> • Points, lines and planes <ul style="list-style-type: none"> ○ Points ○ Lines ○ Planes ○ Collinear points • Line segments and distance <ul style="list-style-type: none"> ○ Line segments ○ solve equations to find measurements ○ Distance formula • Locating points and midpoints <ul style="list-style-type: none"> ○ Midpoint ○ Midpoint formula ○ Partitioning a line segment ○ Segment bisector • Angle measure <ul style="list-style-type: none"> ○ Classify angles ○ Congruent angles ○ Angle bisector • Angle relationships <ul style="list-style-type: none"> ○ Adjacent angles ○ Linear pair ○ Vertical angles ○ Complementary angles ○ Supplementary angles ○ Perpendicular lines • Two-dimensional figures <ul style="list-style-type: none"> ○ Identify polygons ○ Concave and convex ○ Regular polygons | <p>In-class problem sets</p> <p>Exit Tickets</p> <p>Homework</p> <p>Mid unit quiz</p> <p>Unit Exam #1</p> | <p>1.1 (p. 5)</p> <p>1.1 (p. 5)</p> <p>1.1 (p. 5)</p> <p>1.1 (p. 5)</p> <p>1.2 (p. 14)</p> <p>1.2 (p. 14)</p> <p>1.2 (p. 14)</p> <p>1.3 (p. 26)</p> <p>1.3 (p. 26)</p> <p>1.3 (p. 26)</p> <p>1.3 (p. 26)</p> <p>1.4 (p. 36)</p> <p>1.4 (p. 36)</p> <p>1.4 (p. 36)</p> <p>1.5 (p. 46)</p> <p>1.5 (p. 46)</p> <p>1.5 (p. 46)</p> <p>1.5 (p. 46)</p> <p>1.5 (p. 46)</p> <p>1.6 (p. 56)</p> <p>1.6 (p. 56)</p> <p>1.6 (p. 56)</p> | <p>1.1 (p. 11)</p> <p>1.2 (p. 15)</p> <p>1.1 (p. 11)</p> <p>1.2 (p. 15)</p> <p>1.1 (p. 11), 1.9 (p. 44)</p> <p>5.7 (p. 183)</p> <p>1.7 (p. 35)</p> <p>5.8 (p. 187)</p> <p>7.9 (p. 273)</p> <p>1.7 (p. 35), 3.1 (p. 87)</p> <p>1.2 (p. 15), 1.3 (p. 19), 1.9 (p. 44)</p> <p>1.7 (p. 35), 3.1 (p. 87)</p> <p>1.2 (p. 15)</p> <p>1.3 (p. 19), 1.9 (p. 44)</p> <p>1.3 (p. 19), 2.7 (p. 73)</p> <p>1.3 (p. 19), 1.4 (p. 23)</p> <p>1.4 (p. 23), 1.9 (p. 44)</p> <p>1.7 (p. 35), 3.1 (p. 87)</p> <p>2.9 (p. 81)</p> | <p>Castle Learning</p> <p>Problem-Attic</p> <p>Jmap</p> <p>Kuta software</p> <p>Emath Additional Resources, Unit Review, Formative Assessments</p> <p>Textbook</p> <p>Ch. 1 Mid-Chapter Quiz p. 45</p> <p>Ch. 1 Study Guide and Review p. 96</p> <p>Ch. 1 Practice Test p. 103</p> <p>Ch. 1 Preparing for Assessment p. 106</p> <p>Online Textbook Teacher Resources</p> <p>Lesson Worksheets</p> <p>Quizzes</p> <p>Ch. 1 Mid-Chapter Test</p> <p>Standardized Test Practice Ch. 1</p> <p>Chapter Tests</p> |
| | <p>2. Line Relationships</p> <p>Enduring Understandings:</p> <ul style="list-style-type: none"> • Proofs can be written a variety of ways. • Adjacent angles that form a right angle are complementary. • Adjacent angles that form a linear pair are supplementary. <p>Essential Questions:</p> <ul style="list-style-type: none"> • How does knowledge of the placement of congruent angles lead to other determining other | <ul style="list-style-type: none"> • Writing proofs <ul style="list-style-type: none"> ○ postulates of points, lines and planes ○ explain: flow proof, two column proof, paragraph proof, indirect proof • Proving segments relationships <ul style="list-style-type: none"> ○ segment addition and subtraction postulate ○ reflexive, symmetric and transitive properties ○ substitution property • Proving angle relationships | <p>In-class problem sets</p> <p>Exit Tickets</p> <p>Homework</p> <p>Mid unit quiz</p> <p>Unit Exam #2</p> | <p>2.4 (p. 141)</p> <p>2.4 (p. 141)</p> <p>2.5 (p. 152)</p> <p>2.5 (p. 152)</p> | <p>1.8 (p. 39)</p> <p>1.9 (p. 43), 3.2 (p. 91), 3.5 (p. 103)</p> <p>3.2 (p. 91)</p> <p>3.2 (p. 91), 3.5 (p. 103)</p> | <p>Castle Learning</p> <p>Problem-Attic</p> <p>Jmap</p> <p>Emath Additional Resources, Unit Review, Formative Assessments</p> <p>Textbook</p> |

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| | <p>angles congruent?</p> | <ul style="list-style-type: none"> ○ angle addition and subtraction postulate ○ Supplement theorem ○ Complement theorem ○ reflexive, symmetric and transitive properties ○ congruent supplements theorem ○ congruent complements theorem ○ Vertical angles theorem ○ Right angles theorem ● Parallel lines and transversals <ul style="list-style-type: none"> ○ parallel lines and angle pairs ● Slope of equations of lines <ul style="list-style-type: none"> ○ slope of parallel lines ○ slope of perpendicular lines ● Proving lines parallel <ul style="list-style-type: none"> ○ prove lines are parallel | | <p>2.6 (p. 159) 2.6 (p. 159) 2.6 (p. 159) 2.6 (p. 159) 2.6 (p. 159) 2.6 (p. 159) 2.6 (p. 159)</p> <p>2.7 (p. 169)</p> <p>2.8 (p. 178) 2.8 (p. 178)</p> <p>2.9 (p. 186)</p> | <p>3.5 (p. 103)</p> <p>3.2 (p. 91)</p> <p>2.7 (p. 74), 3.6 (p. 107)</p> <p>5.1 (p. 159), 5.3 (p. 167), 5.4 (p. 171), 5.5 (p. 175) 5.2 (p. 163), 5.3 (p. 167), 5.4 (p. 171), 5.5 (p. 175)</p> <p>3.7 (p. 111)</p> | <p>Ch. 2 Study Guide and Review p. 204 Ch. 2 Practice Test p. 211 Ch. 2 Preparing for Assessment p. 214 Online Textbook Teacher Resources Lesson Worksheets Quizzes Standardized Test Practice Ch. 1-2 Chapter Tests</p> |
| | <p>3. Rigid Transformations and Symmetry</p> <p>Enduring Understandings:</p> <ul style="list-style-type: none"> ● Congruent parts of a polygon map to its congruent parts under a rotation or reflection ● A dilated figure has angles congruent to and sides proportional to the original figure <p>Essential Questions:</p> <ul style="list-style-type: none"> ● Why are dilations important to understanding similarity? | <ul style="list-style-type: none"> ● Introduction to transformations <ul style="list-style-type: none"> ○ Introduction to transformations ● Reflections <ul style="list-style-type: none"> ○ reflections ● Translations <ul style="list-style-type: none"> ○ Translations ○ Translation properties ● Rotations <ul style="list-style-type: none"> ○ rotations ● Compositions of transformations <ul style="list-style-type: none"> ○ Compositions of transformations ● Symmetry <ul style="list-style-type: none"> ○ Symmetry <ul style="list-style-type: none"> ■ Line, rotational, point | <p>In-class problem sets Exit Tickets Homework Mid unit quiz Unit Exam #3</p> | <p>3.1 (p. 221)</p> <p>3.2 (p. 232)</p> <p>3.3 (p. 240)</p> <p>3.4 (p. 249)</p> <p>3.5 (p. 259)</p> | <p>2.1 (p. 49)</p> <p>2.3 (p. 57), 5.10 (p. 195)</p> <p>2.5 (p. 65), 5.11 (p. 199) 2.5 (p. 65)</p> <p>2.2 (p. 53), 5.9 (p. 191)</p> <p>2.6 (p. 69)</p> <p>2.9 (p. 81)</p> | <p>Castle Learning Problem-Attic Jmap Emath Additional Resources, Unit Review, Formative Assessments</p> <p>Textbook Ch. 3 Mid-Chapter Quiz p. 247 Ch. 3 Study Guide and Review p. 268 Ch. 3 Practice Test p. 273 Ch. 3 Preparing for Assessment p. 276 Online Textbook Teacher Resources Lesson Worksheets Quizzes Ch. 3 Mid-Chapter Test Standardized Test Practice Ch. 1-3 Chapter Tests</p> |
| <p>Quarterly Exam #1</p> | | | | | | |
| <p>Marking Period 2</p> | <p>4. Triangles and Congruence</p> <p>Enduring Understandings:</p> <ul style="list-style-type: none"> ● Corresponding parts of congruent polygons are congruent ● SSS, SAS, and ASA are sufficient criteria to justify triangle congruence <p>Essential Questions:</p> <ul style="list-style-type: none"> ● How do we know when two geometric figures are congruent? | <ul style="list-style-type: none"> ● Angles of triangles <ul style="list-style-type: none"> ○ triangle angle sum theorem ○ exterior angle theorem ○ triangle angle sum corollaries ● Congruent triangles <ul style="list-style-type: none"> ○ congruence statement ○ use corresponding parts of congruent triangles ● Proving triangles congruent - SSS, SAS <ul style="list-style-type: none"> ○ SSS ○ SAS ● Proving triangles congruent - ASA, AAS <ul style="list-style-type: none"> ○ ASA | <p>In-class problem sets Exit Tickets Homework Mid unit quiz Unit Exam #4</p> | <p>4.1 (p. 282) 4.1 (p. 282) 4.1 (p. 282)</p> <p>4.2 (p. 291) 4.2 (p. 291)</p> <p>4.3 (p. 300) 4.3 (p. 300)</p> <p>4.4 (p. 311)</p> | <p>3.7 (p. 111) 3.6 (p. 107), 9.2 (p. 319)</p> <p>2.6 (p. 69), 2.7 (p. 73)</p> <p>2.8 (p. 77), 3.3 (p. 95), 3.10 (p. 123) 2.8 (p. 77), 3.3 (p. 95), 3.10 (p. 123)</p> <p>2.8 (p. 77), 3.3 (p. 95), 3.10 (p. 123) 2.8 (p. 77), 3.8 (p. 115), 3.10 (p. 123)</p> | <p>Castle Learning Problem-Attic Jmap Emath Additional Resources, Unit Review, Formative Assessments</p> <p>Textbook Ch. 4 Mid-Chapter Quiz p. 310 Ch. 4 Study Guide and Review p. 341 Ch. 4 Practice Test p. 345</p> |

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| | | <ul style="list-style-type: none"> ○ AAS ● Proving right triangles congruent - HL <ul style="list-style-type: none"> ○ HL ● Isosceles and equilateral triangles <ul style="list-style-type: none"> ○ isosceles triangle properties ○ equilateral triangle properties ● CPCTC <ul style="list-style-type: none"> ○ CPCTC ● Triangles and coordinate proof (honors) <ul style="list-style-type: none"> ○ Coordinate proofs with variables | | <p>4.4 (p. 311)</p> <p>4.5 (p. 319)</p> <p>4.6 (p. 325)</p> <p>4.6 (p. 325)</p> <p>4.2 (p. 291)</p> <p>4.7 (p. 334)</p> | <p>3.9 (p. 119), 3.10 (p. 123)</p> <p>2.4 (p. 61), 3.8 (p. 115)</p> <p>3.4 (p. 99)</p> | <p>Ch. 4 Preparing for Assessment p. 348</p> <p>Online Teacher Resources</p> <p>Lesson Worksheets</p> <p>Quizzes</p> <p>Ch. 4 Mid-Chapter Test</p> <p>Standardized Test Practice Ch. 1-4</p> <p>Chapter Tests</p> |
| | <p>5. Relationships in Triangles</p> <p>Enduring Understandings:</p> <ul style="list-style-type: none"> ● Medians, altitudes, or perpendicular bisectors intersect at a point of concurrency uniquely positioned in relation to the triangle <p>Essential Questions:</p> <ul style="list-style-type: none"> ● How do we use similarity to prove relationships between and within figures? | <ul style="list-style-type: none"> ● Bisectors of triangles <ul style="list-style-type: none"> ○ perpendicular bisector ○ Circumcenter ○ angle bisector ○ incenter ● Medians and altitudes of triangles <ul style="list-style-type: none"> ○ Median ○ Centroid ○ Altitude ○ orthocenter ● Inequalities in one triangle <ul style="list-style-type: none"> ○ Angle-side inequality ● The triangle inequality <ul style="list-style-type: none"> ○ Triangle inequality theorem ● Indirect proof (honors) <ul style="list-style-type: none"> ○ Indirect proof ● Inequalities in two triangles (honors) <ul style="list-style-type: none"> ○ Hinge theorem | <p>In-class problem sets</p> <p>Exit Tickets</p> <p>Homework</p> <p>Mid unit quiz</p> <p>Unit Exam #5</p> | <p>5.1 (p. 354)</p> <p>5.1 (p. 354)</p> <p>5.1 (p. 354)</p> <p>5.1 (p. 354)</p> <p>5.2 (p. 365)</p> <p>5.2 (p. 365)</p> <p>5.2 (p. 365)</p> <p>5.2 (p. 365)</p> <p>5.3 (p. 374)</p> <p>5.5 (p. 394)</p> <p>5.4 (p. 385)</p> <p>5.6 (p. 401)</p> | <p>2.4 (p. 61), 3.1 (p. 87)</p> <p>3.1 (p.87)</p> <p>7.10 (p. 277)</p> <p>3.1 (p.87)</p> | <p>Castle Learning</p> <p>Problem-Attic</p> <p>Jmap</p> <p>Emath Additional Resources, Unit Review, Formative Assessments</p> <p>Textbook</p> <p>Ch. 5 Mid-Chapter Quiz p. 382</p> <p>Ch. 5 Study Guide and Review p. 411</p> <p>Ch. 5 Practice Test p. 415</p> <p>Ch. 5 Preparing for Assessment p. 458</p> <p>Online Teacher Resources</p> <p>Lesson Worksheets</p> <p>Quizzes</p> <p>Ch. 5 Mid-Chapter Test</p> <p>Standardized Test Practice Ch. 1-5</p> <p>Chapter Tests</p> |
| | <p>6. Quadrilaterals</p> <p>Enduring Understandings:</p> <ul style="list-style-type: none"> ● A quadrilateral is categorized by the length and direction of its line sections on the coordinate plane. <p>Essential Questions:</p> <ul style="list-style-type: none"> ● Why are squares considered rectangles but rectangles are not considered squares? ● Why are trapezoids considered parallelograms? | <ul style="list-style-type: none"> ● Angles of polygons <ul style="list-style-type: none"> ○ polygon interior angles sum ○ polygon exterior angles sum ● Parallelograms <ul style="list-style-type: none"> ○ Properties of parallelograms ○ Diagonals of parallelograms ● Test for parallelograms <ul style="list-style-type: none"> ○ Conditions for parallelograms ○ Parallelograms on the coordinate plane ● Rectangles <ul style="list-style-type: none"> ○ properties of rectangles ○ prove parallelograms are rectangles ○ rectangles on the coordinate plane ● Rhombi and squares <ul style="list-style-type: none"> ○ properties of rhombi and squares ○ prove quadrilaterals are rhombi or squares ○ rhombi or squares on the coordinate plane ● Trapezoids <ul style="list-style-type: none"> ○ properties of trapezoids <ul style="list-style-type: none"> ■ isosceles trapezoid ■ right trapezoid | <p>In-class problem sets</p> <p>Exit Tickets</p> <p>Homework</p> <p>Mid unit quiz</p> <p>Unit Exam #6</p> | <p>6.1 (p. 423)</p> <p>6.1 (p. 423)</p> <p>6.2 (p. 433)</p> <p>6.2 (p. 433)</p> <p>6.3 (p. 443)</p> <p>6.3 (p. 443)</p> <p>6.4 (p. 453)</p> <p>6.4 (p. 453)</p> <p>6.4 (p. 453)</p> <p>6.5 (p. 460)</p> <p>6.5 (p. 460)</p> <p>6.5 (p. 460)</p> <p>6.6 (p. 469)</p> <p>6.6 (p. 469)</p> <p>6.6 (p. 469)</p> <p>6.6 (p. 469)</p> | <p>6.1 (p. 205), 6.2 (p. 209), 6.8 (p. 233)</p> <p>6.1 (p. 205), 6.2 (p. 209), 6.8 (p. 233)</p> <p>6.1 (p. 205), 6.2 (p. 209)</p> <p>6.5 (p. 221), 6.8 (p. 233)</p> <p>6.5 (p. 221)</p> <p>6.6 (p. 225), 6.7 (p. 229), 6.8 (p. 233)</p> <p>6.7 (p. 229)</p> <p>6.6 (p. 225), 6.7 (p. 229), 6.8 (p. 233)</p> <p>6.1 (p. 205)</p> <p>2.9 (p. 81)</p> | <p>Castle Learning</p> <p>Problem-Attic</p> <p>Jmap</p> <p>Emath Additional Resources, Unit Review, Formative Assessments</p> <p>Textbook</p> <p>Ch. 6 Mid-Chapter Quiz p. 452</p> <p>Ch. 6 Study Guide and Review p. 479</p> <p>Ch. 6 Practice Test p. 483</p> <p>Ch. 6 Preparing for Assessment p. 486</p> <p>Online Teacher Resources</p> <p>Lesson Worksheets</p> <p>Quizzes</p> <p>Ch. 6 Mid-Chapter Test</p> <p>Standardized Test Practice Ch. 1-6</p> <p>Chapter Tests</p> |

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| | | <ul style="list-style-type: none"> ○ isosceles trapezoids on the coordinate plane ○ midsegment of trapezoids ● Properties of Kites (honors) | | | | |
| Midterm (Quarterly #2) | | | | | | |
| Marking Period 3 | <p>7. Similarity</p> <p>Enduring Understandings:</p> <ul style="list-style-type: none"> ● Congruent corresponding angles and proportional corresponding sides are used to prove triangles are similar. ● Congruent polygons are similar. <p>Essential Questions:</p> <ul style="list-style-type: none"> ● Why is a dilation not considered a rigid motion? ● What is the difference between similar and congruent? | <ul style="list-style-type: none"> ● Dilations <ul style="list-style-type: none"> ○ Dilations ○ dilations on the coordinate plane <ul style="list-style-type: none"> ■ centered at the origin ■ not centered at the origin ■ of an equation of a line ○ find scale factor of dilation ○ dilations preserve parallelism ○ dilations preserve angle measurement ● Similar polygons <ul style="list-style-type: none"> ○ properties of similar polygons ○ similarity statement ● AA similarity <ul style="list-style-type: none"> ○ AA similarity postulate ○ use similar triangles ● Parallel lines and proportional parts <ul style="list-style-type: none"> ○ triangle proportionality theorem ○ midsegment of a triangle ○ proportional parts of parallel lines ● Parts of similar triangles <ul style="list-style-type: none"> ○ special segments of similar triangles ● SSS and SAS similarity (honors) | <p>In-class problem sets Exit Tickets Homework Mid unit quiz Unit Exam #7</p> | <p>7.1 (p. 492)</p> <p>7.1 (p. 492)</p> <p>7.1 (p. 492)</p> <p>7.1 (p. 492)</p> <p>7.2 (p. 502)</p> <p>7.2 (p. 502)</p> <p>7.3 (p. 511)</p> <p>7.5 (p. 534)</p> <p>7.5 (p. 534)</p> <p>7.5 (p. 534)</p> <p>7.6 (p. 544)</p> <p>7.4 (p. 521)</p> | <p>7.1 (p. 241)</p> <p>7.2 (p. 245)</p> <p>7.1 (p. 241), 7.2 (p. 245)</p> <p>7.3 (p. 249)</p> <p>7.4 (p. 253)</p> <p>8.1 (p. 291)</p> <p>7.5 (p. 257), 7.6 (p. 261)</p> <p>7.5 (p. 257), 7.6 (p. 261), 7.7 (p. 267)</p> <p>6.4 (p. 217)</p> <p>7.8 (p. 269)</p> <p>7.5 (p. 257)</p> <p>7.5 (p. 257), 7.6 (p. 261)</p> | <p>Castle Learning Problem-Attic Jmap Emath Additional Resources, Unit Review, Formative Assessments</p> <p>Textbook Ch. 7 Mid-Chapter Quiz p. 533 Ch. 7 Study Guide and Review p. 553 Ch. 7 Practice Test p. 557 Ch. 7 Preparing for Assessment p. 560</p> <p>Online Teacher Resources Lesson Worksheets Quizzes Ch. 7 Mid-Chapter Test Standardized Test Practice Ch. 1-7 Chapter Tests</p> |
| | <p>8. Right Triangles and Trigonometry</p> <p>Enduring Understandings:</p> <ul style="list-style-type: none"> ● Corresponding sides of similar triangles prove the Pythagorean Theorem is true for all right triangles. ● Sine, Cosine, and Tangent are constant ratios that relate the angles and sides of a right triangle. <p>Essential Questions:</p> <ul style="list-style-type: none"> ● What relationships exist between the sides of similar right triangles? ● What is a relationship between angles and sides of a right triangle? | <ul style="list-style-type: none"> ● Geometric mean <ul style="list-style-type: none"> ○ geometric mean ○ geometric mean with right triangles ● The Pythagorean theorem and its converse <ul style="list-style-type: none"> ○ Pythagorean theorem and its converse ○ Pythagorean triples ○ Pythagorean inequality theorem (honors) ● Special right triangles <ul style="list-style-type: none"> ○ Special right triangles ● Trigonometry <ul style="list-style-type: none"> ○ trigonometry ● Angles of elevation and depression <ul style="list-style-type: none"> ○ Angles of elevation and depression ○ Use 2 angles of elevation ● Law of sines* (honors) ● Law of cosines* (honors) | <p>In-class problem sets Exit Tickets Homework Mid unit quiz Unit Exam #8</p> | <p>8.1 (p. 565)</p> <p>8.1 (p. 565)</p> <p>8.2 (p. 575)</p> <p>8.2 (p. 575)</p> <p>8.2 (p. 575)</p> <p>8.3 (p. 586)</p> <p>8.4 (p. 596)</p> <p>8.5 (p. 608)</p> <p>8.5 (p. 608)</p> <p>8.6 (p. 616)</p> <p>8.7 (p. 624)</p> | <p>7.7 (p. 267), 7.11 (p. 281)</p> <p>5.6 (p. 179), 7.12 (p. 285)</p> <p>8.2 (p. 293), 8.3 (p. 297), 8.4 (p. 301) 8.5 (p. 305), 8.6 (p. 309)</p> <p>8.5 (p. 305)</p> <p>8.6 (p. 309)</p> | <p>Castle Learning Problem-Attic Jmap Emath Additional Resources, Unit Review, Formative Assessments</p> <p>Textbook Ch. 8 Mid-Chapter Quiz p. 607 Ch. 8 Study Guide and Review p. 630 Ch. 8 Practice Test p. 635 Ch. 8 Preparing for Assessment p. 638</p> <p>Online Teacher Resources Lesson Worksheets Quizzes Ch. 8 Mid-Chapter Test Standardized Test Practice Ch. 1-8 Chapter Tests</p> |
| | <p>9. Circles</p> <p>Enduring Understandings:</p> | <ul style="list-style-type: none"> ● Circles and circumference <ul style="list-style-type: none"> ○ segments in circles ○ circumference | <p>In-class problem sets Exit Tickets Homework</p> | <p>9.1 (p. 643)</p> <p>9.1 (p. 643)</p> | <p>1. 5 (p. 27), 9.1 (p. 315)</p> <p>10.2 (p. 369)</p> | <p>Castle Learning Problem-Attic Jmap</p> |

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| | <ul style="list-style-type: none"> A circle is uniquely defined in the coordinate plane using its center and radius. There is a constant proportional relationship between an angle and its arc measures on a circle. Congruence and similarity criteria prove relationships between segments and figures of a circle. <p>Essential Questions:</p> <ul style="list-style-type: none"> How do circles define the relationships among segments, angles, and arcs? | <ul style="list-style-type: none"> Measuring angles and arcs <ul style="list-style-type: none"> Central angles Arc measure Arc length Radian measure Arcs and chords <ul style="list-style-type: none"> Arcs and chords bisecting arcs and chords chord properties <ul style="list-style-type: none"> Parallel chords Inscribed angles <ul style="list-style-type: none"> Inscribed angles angles of inscribed polygons Tangents <ul style="list-style-type: none"> Tangents common tangents tangent perpendicular to radius common tangents from external point Secants, tangents, and angle measures <ul style="list-style-type: none"> angle measures of intersecting secants, tangents and chords Secants, tangents, and segment measures <ul style="list-style-type: none"> segments of intersecting secants, tangents and chords Equations of circles <ul style="list-style-type: none"> Equations of circles <ul style="list-style-type: none"> Complete the square | <p>Mid unit quiz Unit Exam #9</p> | <p>9.2 (p. 652) 9.2 (p. 652) 9.2 (p. 652)</p> <p>9.2 (p. 652)</p> <p>9.3 (p. 661) 9.3 (p. 661)</p> <p>9.4 (p. 669) 9.4 (p. 669)</p> <p>9.5 (p. 678) 9.5 (p. 678) 9.5 (p. 678) 9.5 (p. 678)</p> <p>9.6 (p. 687)</p> <p>9.7 (p. 696)</p> | <p>9.1 (p. 315) 9.1 (p. 315)</p> <p>10.6 (p. 387)</p> <p>9.4 (p. 327)</p> <p>9.2 (p. 319) 9.3 (p. 323)</p> <p>9.5 (p. 331)</p> <p>9.5 (p. 331) 9.5 (p. 331)</p> <p>9.4 (p. 327), 9.6 (p. 335), 9.7 (p. 339)</p> <p>9.4 (p. 327), 9.6 (p. 335), 9.8 (p. 343)</p> <p>9.9 (p. 347) 9.10 (p. 351)</p> | <p>Emath Additional Resources, Unit Review, Formative Assessments</p> <p>Textbook Ch. 9 Mid-Chapter Quiz p. 677 Ch. 9 Study Guide and Review p. 711 Ch. 9 Practice Test p. 717 Ch. 9 Preparing for Assessment p. 720</p> <p>Online Teacher Resources Lesson Worksheets Quizzes Ch. 9 Mid-Chapter Test Standardized Test Practice Ch. 1-9 Chapter Tests</p> |
| Quarterly Exam #3 | | | | | | |
| Marking Period 4 | <p>10. Area</p> <p>Enduring Understandings:</p> <ul style="list-style-type: none"> The space a 2-dimensional object takes up is called area. Composite figures can be broken down into a series of other figures and their area can be determined by adding these smaller areas. <p>Essential Questions:</p> <ul style="list-style-type: none"> How are area formulas for plane figures derived? How are area and perimeter used in real-world applications? | <ul style="list-style-type: none"> Area of parallelograms and triangles <ul style="list-style-type: none"> area of parallelograms and triangles Area of trapezoids and rhombi <ul style="list-style-type: none"> area of trapezoids and rhombi Perimeter <ul style="list-style-type: none"> perimeter involving Trigonometry Area of circles and sectors <ul style="list-style-type: none"> area of circles area of sectors Area of composite figures <ul style="list-style-type: none"> area of composite figures area of regular polygons (honors) Area and nonrigid transformations <ul style="list-style-type: none"> area of similar figures Surface area (optional) <ul style="list-style-type: none"> surface area <ul style="list-style-type: none"> Rectangular prism Triangle prism Right cylinder Square pyramid Rectangle pyramid | <p>In-class problem sets Exit Tickets Homework Mid unit quiz Unit Exam #10</p> | <p>10.1 (p. 725)</p> <p>10.2 (p. 725)</p> <p>10.3 (p. 743) 10.3 (p. 743)</p> <p>10.4 (p. 752)</p> <p>10.5 (p. 763)</p> <p>10.6 (p. 770)</p> | <p>10.3 (p. 373)</p> <p>10.1 (p. 365)</p> <p>10.4 (p. 377) 10.5 (p. 383)</p> | <p>Castle Learning Problem-Attic Jmap Emath Additional Resources, Unit Review, Formative Assessments</p> <p>Textbook Ch. 10 Mid-Chapter Quiz p. 750 Ch. 10 Study Guide and Review p. 782 Ch. 10 Practice Test p. 787 Ch. 10 Preparing for Assessment p. 790</p> <p>Online Teacher Resources Lesson Worksheets Quizzes Ch. 10 Mid-Chapter Test Standardized Test Practice Ch. 1-10 Chapter Tests</p> |
| | <p>11. Volume</p> | <ul style="list-style-type: none"> Cross sections and solids of revolutions <ul style="list-style-type: none"> definitions of polyhedrons | <p>In-class problem sets Exit Tickets</p> | <p>1.8 (p. 76)</p> | <p>10.7 (p. 391)</p> | <p>Castle Learning Problem-Attic</p> |

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| <p>Enduring Understandings:</p> <ul style="list-style-type: none"> Three dimensional objects are composed of several two dimensional shapes <p>Essential Questions:</p> <ul style="list-style-type: none"> How are two dimensional and three dimensional objects related to each other? | <ul style="list-style-type: none"> Net of solids Cross sections Solids of revolutions Volume of prisms and cylinders <ul style="list-style-type: none"> Volume of prisms Volume of cylinders Cavalieri's principle Volume of pyramids and cones <ul style="list-style-type: none"> Volume of pyramids Volume of cones Spheres <ul style="list-style-type: none"> Volume of spheres and hemispheres <ul style="list-style-type: none"> circumference of the great circle surface area of spheres (honors) Applying measurements <ul style="list-style-type: none"> density Volume of truncated cones <ul style="list-style-type: none"> volume of truncated cones Volume of nonrigid transformations (honors) <ul style="list-style-type: none"> volume of similar figures | <p>Homework Mid unit quiz Unit Exam #11</p> | <p>1.9 (p. 84) 11.1 (p. 797) 11.1 (p. 797)</p> <p>11.2 (p. 802) 11.2 (p. 802) 11.2 (p. 802)</p> <p>11.3 (p. 810) 11.3 (p. 810)</p> <p>11.4 (p. 818)</p> <p>11.4 (p. 818)</p> <p>11.7 (p. 841)</p> <p>11.6 (p. 834)</p> | <p>10.8 (p. 395)</p> <p>10.9 (p. 399) 10.9 (p. 399)</p> <p>10.10 (p. 403)</p> <p>10.11 (p. 407)</p> | <p>Jmap Emath Additional Resources, Unit Review, Formative Assessments</p> <p>Textbook Ch. 11 Mid-Chapter Quiz p. 817 Ch. 11 Study Guide and Review p. 847 Ch. 11 Practice Test p. 851 Ch. 11 Preparing for Assessment p. 854</p> <p>Online Teacher Resources Lesson Worksheets Quizzes Ch. 11 Mid-Chapter Test Standardized Test Practice Ch. 1-11 Chapter Tests</p> |
| <p>12. Constructions</p> <p>Enduring Understandings:</p> <ul style="list-style-type: none"> Constructions are done without measuring <p>Essential Questions:</p> <ul style="list-style-type: none"> How are constructions used to understand and be more precise about congruence? | <ul style="list-style-type: none"> Copy segment Copy angle Perpendicular bisector Angle bisector Perpendicular through a point on a line Perpendicular through a point not on a line Parallel line through a point Equilateral and Isosceles triangle Square inscribed in a circle Hexagon inscribed in a circle Equilateral triangle inscribed in a circle Partitioning a line segment (honors) Centroid, incenter, circumcenter, orthocenter (honors) | <p>In-class problem sets Exit Tickets Homework Mid unit quiz Unit Exam #12</p> | <p>1.4 (p. 36)</p> <p>1.2 (p. 14)</p> <p>1.3 (p. 26) 1.3 (p. 26)</p> <p>1.4 (p. 36)</p> <p>2.9 (p. 186)</p> | <p>4.2 (p. 133)</p> <p>4.4 (p. 311)</p> <p>4.5 (p. 145)</p> <p>4.3 (p. 137) 4.3 (p. 137)</p> <p>4.2 (p. 133) 1.5 (p. 27), 4.1 (p. 129) 4.1 (p. 129) 4.7 (p. 153) 4.7 (p. 153) 4.7 (p. 153)</p> | <p>Castle Learning Problem-Attic Jmap Emath Additional Resources, Unit Review, Formative Assessments</p> |
| <p>13. Regents Review and Formal Proofs</p> <p>Enduring Understandings</p> <ul style="list-style-type: none"> Geometry can be used to represent real-world structures and situations. Geometry has a mathematical language to describe the world around us. Geometry provides us with common understanding to measure and describe relationships on a plane and in space. <p>Essential Questions:</p> <ul style="list-style-type: none"> Which topics lend themselves to being combined in a single Regents question? Which topics are most commonly | | <p>In-class problem sets Exit Tickets Homework Mid unit quiz Unit Exam #13</p> | | | <ul style="list-style-type: none"> Regents Review Sheet |

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| | <p>asked in the multiple choice section of the Regents?</p> <ul style="list-style-type: none">• What type of questions are asked in the Part IV section of the Regents?• What questions are most likely to come up with year? | | | | | |
| <p>Final Assessment: Regents</p> | | | | | | |
| <p>Summer</p> | <p>Summer Assignment:</p> | | | | | |