# Unwrapping the Standards

**Content Area:** Geometry **Completed By:** Andre Pineda **Quarter 1**

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| **Essential Standard: Identify and describe relationships among inscribed angles, radii, and chords. Include the relationship between central, inscribed, and circumscribed angles; inscribed angles on a diameter are right angles; the radius of a circle is perpendicular to the tangent where the radius intersects the circle.** |
| **Skills and Concepts** |
| 1. Students will know…(the concepts that support the standard) | 2. And be able to….(the skills students are able to demonstrate after instruction) | 3. Level of thinking (from one of the 3 frameworks listed on below) |
| * the definition of radius, diameter, and chord.
* how to define perpendicular lines
* the definition of inscribed and circumscribed
* the definition of tangent
* definition of an arc
* that an inscribed angle whose sides intersect the endpoints of the diameter of a circle is a right angle
* the radius of a circle is perpendicular to a tangent where the radius intersects the circle
 | * identify central angles, inscribed angles, circumscribed angles, diameters, radii, chords, and tangents
* explain the relationship between a central angle and the arc it intercepts
* explain the relationship between an inscribed angle and the arc it intercepts
* explain the relationship between a circumscribed angle and the arcs it intercepts
* explain the relationship between a chord and a tangent.
 | * Strategic thinking/complex reasoning (DOK 3)
* Extended thinking/reasoning (DOK 4)
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| Vocabulary: radius, diameter,chord, perpendicular lines, tangent, arc, inscribed angle, diameter |

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| **Bloom’s Taxonomy** | **Marzano’s Taxonomy** | **Webb’s Depth of Knowledge** |
| * Remembering
* Understanding
* Applying
* Analyzing
* Evaluating
* Creating
 | * Level 1: Retrieval
* Level 2: Comprehension
* Level 3: Analysis
* Level 4: Knowledge utilization
* Level 5: Metacognition
* Level 6: Self-System thinking
 | * Recall and reproduction (DOK 1)
* Skills and Concepts (DOK 2)
* Strategic thinking/complex reasoning (DOK 3)
* Extended thinking/reasoning (DOK 4)
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# Unwrapping the Standards

**Content Area:** Geometry **Completed By:** Andre Pineda **Quarter 2**

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| **Essential Standard: G.C.3 Construct the inscribed and circumscribed circles of a triangle, and prove properties of angles for a quadrilateral inscribed in a circle.** |
| **Skills and Concepts** |
| 1. Students will know…(the concepts that support the standard) | 2. And be able to….(the skills students are able to demonstrate after instruction) | 3. Level of thinking (from one of the 3 frameworks listed on below) |
| * the definition of supplementary angles
* the Arc Addition Postulate
* how to use a straight edge and compass
* the definition of perpendicular bisector
* - the definition of inscribed and circumscribed figures.
 | * define inscribed, circumscribed, angle bisector, and perpendicular bisector
* create an inscribed circle whose center is the intersection of angle bisectors (incenter)
* create a circumscribed circle whose center is the intersection of the perpendicular bisectors of each side of the triangle (circumcenter)
* use the Arc Addition Postulate to solve for missing arc measures
* prove opposite angles in an inscribed quadrilateral are supplementary
 | * Strategic thinking/complex reasoning (DOK 3)
* Extended thinking/reasoning (DOK 4)
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| Vocabulary:**inscribed, circumscribed, quadrilateral,** Arc Addition Postulate, perpendicular bisector |

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| **Bloom’s Taxonomy** | **Marzano’s Taxonomy** | **Webb’s Depth of Knowledge** |
| * Remembering
* Understanding
* Applying
* Analyzing
* Evaluating
* Creating
 | * Level 1: Retrieval
* Level 2: Comprehension
* Level 3: Analysis
* Level 4: Knowledge utilization
* Level 5: Metacognition
* Level 6: Self-System thinking
 | * Recall and reproduction (DOK 1)
* Skills and Concepts (DOK 2)
* Strategic thinking/complex reasoning (DOK 3)
* Extended thinking/reasoning (DOK 4)
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# Unwrapping the Standards

**Content Area:** Geometry **Completed By:** Andre Pineda **Quarter 3**

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| **Essential Standard: *Verify experimentally the properties of dilations given by a center and a scale factor. (a) A dilation takes a line not passing through the center of the dilation to a parallel line, and leaves a 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.*** |
| **Skills and Concepts** |
| 1. Students will know…(the concepts that support the standard) | 2. And be able to….(the skills students are able to demonstrate after instruction) | 3. Level of thinking (from one of the 3 frameworks listed on below) |
| * the definition of dilation.
* the dilation of a line segment is longer or shorter in the ratio given by the scale factor.
 | * perform a dilation with given center and scale factor on a figure in the coordinate plane.
* explain why when a side passes through the center of dilation, the side and its image lie on the same line.
* explain why corresponding sides of the preimage and images are parallel.
 | * Strategic thinking/complex reasoning (DOK 3)
* Extended thinking/reasoning (DOK 4)
 |
| Vocabulary: Similarity transformation, angle measure, similarity, composition, rigid motion, dilation, side length, proportional, corresponding sides, corresponding angles, center, scale factor, image, slope, parallel, preimage, distance, segment, ratio, Pythagorean Theorem, dilation |

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| **Bloom’s Taxonomy** | **Marzano’s Taxonomy** | **Webb’s Depth of Knowledge** |
| * Remembering
* Understanding
* Applying
* Analyzing
* Evaluating
* Creating
 | * Level 1: Retrieval
* Level 2: Comprehension
* Level 3: Analysis
* Level 4: Knowledge utilization
* Level 5: Metacognition
* Level 6: Self-System thinking
 | * Recall and reproduction (DOK 1)
* Skills and Concepts (DOK 2)
* Strategic thinking/complex reasoning (DOK 3)
* Extended thinking/reasoning (DOK 4)
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Unwrapping the Standards

**Content Area:** Geometry **Completed By:** Andre Pineda **Quarter 4**

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| **Essential Standard: *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.*** |
| **Skills and Concepts** |
| 1. Students will know…(the concepts that support the standard) | 2. And be able to….(the skills students are able to demonstrate after instruction) | 3. Level of thinking (from one of the 3 frameworks listed on below) |
| * standard form of a quadratic equation
* general form of a quadratic equation
* the location of the center of a circle
* the location of the radius of a circle
* the Pythagorean Theorem
* how to apply the Pythagorean Theorem the distance formula
* how to apply the distance formula
* parts of a right triangle the equation of a circle
 | * identify the center and radius of a circle if given its equation
* draw a right triangle with a horizontal leg, vertical leg, and the radius of a circle as its hypotenuse
* use the distance formula or Pythagorean Theorem, the coordinates of a circle’s center, and the circle’s radius to write the equation of a circle
* identify the center and radius of a circle if give its equation
* convert an equation of a circle from general quadratic form to standard quadratic form by completing the square
 | * Strategic thinking/complex reasoning (DOK 3)
* Extended thinking/reasoning (DOK 4)
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| Vocabulary:Distance formula, Pythagorean Theorem, difference, coordinates, radius, circle, hypotenuse, equation, center, complete the square, quadratic equation, conic equation, standard form, general form |

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| **Bloom’s Taxonomy** | **Marzano’s Taxonomy** | **Webb’s Depth of Knowledge** |
| * Remembering
* Understanding
* Applying
* Analyzing
* Evaluating
* Creating
 | * Level 1: Retrieval
* Level 2: Comprehension
* Level 3: Analysis
* Level 4: Knowledge utilization
* Level 5: Metacognition
* Level 6: Self-System thinking
 | * Recall and reproduction (DOK 1)
* Skills and Concepts (DOK 2)
* Strategic thinking/complex reasoning (DOK 3)
* Extended thinking/reasoning (DOK 4)
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