# 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) |
| 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) |

# 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) |
| 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) |

# 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) |

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) |
| 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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