**CMS**

**Course-at-a-Glance 2016-2017**

**Math 2**

U**nit 1 Title: Transformations Suggested Pacing: 11 Days**

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| **Standards:** G.CO.2, G.CO.3, G.CO.4, G.CO.5, G.CO.6, G. SRT.1, G. SRT.1a, F.IF.1, F.IF.2 In this unit, students will understand translations, reflections, rotations, dilations and congruence transformations. In addition, transformations will be explored as functions. |

U**nit 2 Title: Quadratics Suggested Pacing: 22 Days**

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| **Standards:** N.CN.1, A.SSE.1, A.SSE.1a., A.SSE.1b, A.SSE.3, F.IF.4, F.IF.7, F.IF.8, F.IF.8a, F.IF.9, F.BF.1, F.BF.3, A.REI.4, A.REI.4a, A.REI.4b, A.REI.7, A.CED.1, A.CED.2, A.CED.3In this unit, students will create, graph and interpret key features of quadratic equations using standard form, vertex form (completing the square) and the $x$-intercepts. Students will be introduced to complex numbers and interpret parts of a quadratic and square root function, including terms, factors, coefficients, and exponents. Students will know the transformations caused by constants in quadratic functions and create and solve systems of linear and quadratic equations to model situations in context.  |

**Unit 3 Title: Radical and Rational Functions Suggested Pacing: 11 Days**

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| **Standards:** F.BF.1, F.BF.3, F.IF.4, F.IF.7, F.IF.9, A.SSE.1a, A.SSE.1b, A.CED.1, A.CED.2, A.CED.3, A.REI.1, A.REI.2, A.REI.11, N.RN.1, N.RN.2, N.RN.3In this unit, students will explore and apply the properties of exponents and write a function that describes a relationship between two quantities by building square root functions with real solution(s) and inverse variation functions. Additionally, students will analyze, compare, and contrast quadratic, square root, and inverse variation functions by generating different representations and solve radical systems of equations both graphically and algebraically. |

**Unit 4 Title: Similarity and Congruence**  **Suggested Pacing: 16 Days**

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| **Standards:** G.CO.6, G.CO.7, G.CO.8, G.CO.9, G.CO.10, G.SRT.1b, G.SRT.1c, G.SRT.1d, G.SRT.2, G.SRT.3, G.SRT.4In this unit, students will understand congruence in terms of rigid motions, prove geometric theorems, and make geometric constructions. Students will be able to determine if 2 figures are congruent by comparing corresponding parts; triangles can be proven congruent without having to compare all corresponding parts; and that angles and sides of isosceles and equilateral triangles have special relationships. |

**Unit 5 Title: Trigonometry Suggested Pacing: 7 Days**

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| **Standards:** A.SSE.1a, A.CED.1, G.SRT.4, G.SRT.6, G.SRT.8, G.SRT.12, G.CO.10In this unit, students will understand similarity in terms of side ratios, define trigonometric ratios, and use the Pythagorean Theorem to create and solve problems involving right triangles in terms of a context. Students will use theorems about triangles to prove relationships in geometric figures and develop properties of special right triangles to solve problems. |

**Unit 6 Title: Probability Suggested Pacing: 12 Days**

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| **Standards:** S.IC.2, S.CP.1, S.CP.3, S.CP.3a, S.CP.3b, S.CP.4, S.CP.5, S.CP.6, S.CP.7, S.CP.8 In this unit, students will understand and evaluate random processes underlying statistical experiments and evaluate reports based on data. Students will understand independence and conditional probability and use them to interpret data, as well as use the rules of probability to compute probabilities of compound events. |