

# Catchup Math and the Common Core Standards

Spring 2011

The Catchup Math curriculum addresses nearly all the Common Core Mathematics Standards for Grades 6-8 and High School (including most of the “optional” high school mathematics standards, indicated in the Common Core Standards document with a (+) symbol).

For each standard in Column A, Column B shows Catchup Math topic names, which can be added to custom programs; Column C shows specific Catchup Math programs where the standard is covered.

Column A

Column B

Column C

|        |  |  |
|--------|--|--|
| 6.RP.1 | Rates and Ratios; Proportions  | Essentials; Pre-Algebra Chapter 6; Algebra 1 Chapter 3; Geometry Chapter 6         |
| 6.RP.2 | Unit Rates   | Pre-Algebra Chapter 6; Pre-Algebra Chapter 11; Algebra 1 Chapter 3                 |
| 6.RP.3 | Rates and Ratios; Percent; Equivalent Fractions; Unit Analysis           | Essentials; Pre-Algebra Chapter 6; Algebra 1 Chapter 3                             |
| 6.NS.1 | Dividing by a Fraction   | Essentials   |
| 6.NS.2 | <i>Basic operations with whole numbers: not covered in Catchup Math</i>  |  |
| 6.NS.3 | Adding and Subtracting Decimals; Multiplying and Dividing with Decimals  | Essentials; Pre-Algebra Proficiency; Pre-Algebra Chapter 1                         |
| 6.NS.4 | Greatest Common Factors; Least Common Multiples                          | Essentials; Pre-Algebra Proficiency; Algebra 1 Proficiency; Pre-Algebra Chapter 3; |
| 6.NS.5 | Integers; Number Line  | Essentials; Pre-Algebra Proficiency; Pre-Algebra Chapter 2                         |
| 6.NS.6 | Opposites; Rational Numbers; Number Line; Ordered Pairs; Cartesian Plane | Pre-Algebra Proficiency; Algebra 1 Proficiency; Pre-Algebra Chapter 2; Pre-        |

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|        |   | Algebra Chapter 3   |
| 6.NS.7 | Absolute Value; Inequalities  | Essentials; Pre-Algebra Proficiency; Pre-Algebra Chapter 2  |
| 6.NS.8 | Ordered Pair; Cartesian Plane   | Essentials; Pre-Algebra Proficiency; Algebra 1 Chapter 2  |
| 6.EE.1 | Exponents   | Essentials; Pre-Algebra Proficiency; Algebra 1 Chapter 6  |
| 6.EE.2 | Variables; Word Problems  | Essentials; Pre-Algebra Proficiency; Pre-Algebra Chapter 1; Algebra 1 Chapter 1                                 |
| 6.EE.3 | Properties of Multiplication; Properties of Addition                          | Essentials; Pre-Algebra Proficiency   |
| 6.EE.4 | Solving Equations   | Essentials; Pre-Algebra Chapter 5   |
| 6.EE.5 | Solving Equations; Inequalities   | Pre-Algebra Proficiency; Pre-Algebra Chapter 5  |
| 6.EE.6 | Word Problems; Variables  | Essentials; Pre-Algebra Proficiency; Pre-Algebra Chapter 1; Algebra 1 Chapter 1                                 |
| 6.EE.7 | Solving Linear Equations  | Pre-Algebra Proficiency; Pre-Algebra Chapter 10; Algebra 1 Chapter 1  |
| 6.EE.8 | Inequalities; Graphing Inequalities in One Variable                           | Pre-Algebra Chapter 8; Algebra 1 Proficiency  |
| 6.EE.9 | Input-Output Tables; Functions; Rate-Time-Distance Problems; Direct Variation | Pre-Algebra Proficiency; Pre-Algebra Chapter 5; Algebra 1 Proficiency; Algebra 1 Chapter 3; Algebra 1 Chapter 9 |
| 6.G.1  | Area; Triangle; Square; Rectangle   | Pre-Algebra Chapter 9   |

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| 6.G.2  | Volume of a Prism   | Pre-Algebra Chapter 9;<br>Geometry Chapter 11   |
| 6.G.3  | Ordered Pairs; Cartesian Plane  | Essentials; Pre-Algebra Proficiency; Algebra 1 Chapter 2                                  |
| 6.G.4  | Nets; Surface Area  | Pre-Algebra Proficiency; Pre-Algebra Chapter 9; Geometry Proficiency; Geometry Chapter 11 |
| 6.SP.1 | <i>To be added soon</i>   |   |
| 6.SP.2 | <i>To be added soon</i>   |   |
| 6.SP.3 | <i>To be added soon</i>   |   |
| 6.SP.4 | Line Plots; Box-and-Whisker Plots; Histograms   | Pre-Algebra Proficiency; Algebra 1 Proficiency; Algebra 1 Chapter 11                      |
| 6.SP.5 | Mean, Median, Mode; Box-and-Whisker Plots; Interquartile; Range of Data   | Pre-Algebra Proficiency; Algebra 1 Proficiency; Algebra 1 Chapter 11                      |
| 7.RP.1 | Unit Rates; Converting between Systems; Rates and Ratios  | Essentials; Pre-Algebra Chapter 6; Pre-Algebra Chapter 11                                 |
| 7.RP.2 | Direct Variation; Proportions; Graphing Linear Equations; Unit Rates  | Pre-Algebra Proficiency; Geometry Proficiency; Algebra 1 Chapter 3                        |
| 7.RP.3 | Simple Interest; Rates and Ratios; Percent; Percent Increase and Decrease   | Pre-Algebra Proficiency; Pre-Algebra Chapter 6; Algebra 1 Proficiency                     |
| 7.NS.1 | Opposites; Absolute Value; Integers; Adding and Subtracting Negatives; Properties of Addition; Distributive Property                                  | Essentials; Pre-Algebra Proficiency; Pre-Algebra Chapter 2                                |
| 7.NS.2 | Multiplying a Fraction by a Fraction; Dividing by a Fraction; Multiplying and Dividing Negatives; Properties of Multiplication; Distributive Property | Essentials; Pre-Algebra Proficiency; Pre-Algebra Chapter 4                                |

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| 7.NS.3 | Order of Operations; Multiplying a Fraction by a Fraction; Dividing by a Fraction; Multiplying and Dividing Negatives; Adding and Subtracting Negatives; Adding and Subtracting Fractions   | Essentials; Pre-Algebra Proficiency; Pre-Algebra Chapter 4  |
| 7.EE.1 | Simplifying Expressions; Order of Operations; Distributive Property; Factoring  | Essentials; Pre-Algebra Proficiency; Pre-Algebra Chapter 1  |
| 7.EE.2 | <i>To be added soon</i>   |   |
| 7.EE.3 | Word Problems; Converting Fractions to Decimals; Converting Repeating Decimals to Fractions   | Essentials  |
| 7.EE.4 | Solving Two-Step Linear Equations; Solving Linear Inequalities  | Algebra 1 Proficiency; Algebra 1 Chapter 1; Algebra 1 Chapter 4   |
| 7.G.1  | Scale Factor; Proportions   | Pre-Algebra Proficiency; Pre-Algebra Chapter 6; Algebra 1 Chapter 3; Geometry Proficiency; Geometry Chapter 6 |
| 7.G.2  | <i>Drawing/construction type (see below)</i>  |   |
| 7.G.3  | <i>To be added soon</i>   |   |
| 7.G.4  | Circle; Area; Circumference   | Pre-Algebra Chapter 7; Geometry Proficiency   |
| 7.G.5  | Supplementary Angles; Complementary Angles; Vertical Angles; Adjacent Angles  | Pre-Algebra Proficiency; Pre-Algebra Chapter 7; Geometry Proficiency  |
| 7.G.6  | Area; Volume; Surface Area; Surface Area of a Cone; Surface Area of a Cylinder; Surface Area of a Prism; Surface Area of a Pyramid; Volume of a Prism; Volume of a Pyramid; Triangle; Quadrilateral; Cylinder; Cone; Pyramid; Prism; Polygons | Pre-Algebra Proficiency; Pre-Algebra Chapter 9; Geometry Proficiency  |
| 7.SP.1 | Random Sampling   |   |

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| 7.SP.2 | Random Sampling  |   |
| 7.SP.3 | <i>To be added soon</i>                                  |   |
| 7.SP.4 | <i>To be added soon</i>                                  |   |
| 7.SP.5 | Probability  | Algebra 1 Chapter 13  |
| 7.SP.6 | Probability  | Algebra 1 Chapter 13  |
| 7.SP.7 | <i>Modeling type (see below)</i>                         |   |
| 7.SP.8 | Sample Space; Fundamental Counting Principle             | Algebra 1 Chapter 13  |
| 8.NS.1 | Irrational Numbers                                       | Essentials; Pre-Algebra Chapter 8   |
| 8.NS.2 | Irrational Numbers; Square Roots; Rounding Decimals      | Essentials; Pre-Algebra Proficiency; Pre-Algebra Chapter 8                                |
| 8.EE.1 | Exponents; Negative Exponents                            | Algebra 1 Chapter 6   |
| 8.EE.2 | Square Roots; nth Roots; Perfect Squares                 | Pre-Algebra Proficiency; Pre-Algebra Chapter 8; Algebra 1 Chapter 8                       |
| 8.EE.3 | Scientific Notation                                      | Pre-Algebra Proficiency; Algebra 1 Proficiency; Algebra 1 Chapter 6                       |
| 8.EE.4 | Scientific Notation                                      | Pre-Algebra Proficiency; Algebra 1 Proficiency; Algebra 1 Chapter 6                       |
| 8.EE.5 | Proportions; Direct Variation; Unit Rates                | Algebra 1 Chapter 3; Geometry Proficiency   |
| 8.EE.6 | Slope; Similar Triangles; Slope-Intercept Form           | Pre-Algebra Chapter 10; Algebra 1 Proficiency; Algebra 1 Chapter 2; Algebra 2 Proficiency |
| 8.EE.7 | Solving Multistep Linear Equations; Combining Like Terms | Algebra 1 Proficiency; Algebra 1 Chapter 1  |

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| 8.EE.8 | Solving Systems of Linear Equations; Solving Systems of Linear Equations Using Elimination Method; Solving Systems of Linear Equations Using Graphing Method; Solving Systems of Linear Equations Using Substitution Method                           | Algebra 1 Proficiency; Algebra 1 Chapter 5; Algebra 2 Chapter 3  |
| 8.F.1  | Functions; Input-Output Tables  | Algebra 1 Proficiency; Algebra 1 Chapter 9                       |
| 8.F.2  | <i>To be added soon</i>   |  |
| 8.F.3  | Slope-Intercept Form  | Algebra 1 Chapter 2  |
| 8.F.4  | <i>To be added soon</i>   |  |
| 8.F.5  | <i>To be added soon</i>   |  |
| 8.G.1  | Transformations of Graphs   | Pre-Algebra Chapter 7; Geometry Proficiency; Geometry Chapter 8  |
| 8.G.2  | Transformations of Graphs; Congruent Segments; Congruent Angles   | Pre-Algebra Chapter 7; Geometry Proficiency; Geometry Chapter 8  |
| 8.G.3  | Transformations of Graphs; Dilation   | Pre-Algebra Chapter 7; Geometry Proficiency; Geometry Chapter 8  |
| 8.G.4  | Transformations of Graphs; Dilation; Similar Figures  | Pre-Algebra Chapter 7; Geometry Proficiency; Geometry Chapter 8  |
| 8.G.5  | Angle Sum Theorem; Exterior Angle Theorem; Transversal; Corresponding Angles; Corresponding Angles Postulate; Alternate Exterior Angles; Alternate Exterior Angle Theorem; Alternate Interior Angles; Alternate Interior Angle Theorem; AA Similarity | Pre-Algebra Chapter 7; Geometry Proficiency; Geometry Chapter 3  |
| 8.G.6  | Pythagorean Theorem   | Pre-Algebra Chapter 8; Algebra 1 Proficiency; Geometry Chapter 7 |
| 8.G.7  | Pythagorean Theorem; Pythagorean Triples  | Pre-Algebra Chapter 8;   |

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|            |   | Algebra 1 Proficiency   |
| 8.G.8      | Pythagorean Theorem; Distance Formula   | Pre-Algebra Proficiency; Pre-Algebra Chapter 8; Algebra 1 Proficiency; Geometry Proficiency |
| 8.G.9      | Volume of a Cone; Volume of a Prism; Volume of a Cylinder; Volume of a Sphere                             | Pre-Algebra Chapter 9; Geometry Chapter 11  |
| 8.SP.1     | Scatter Plots   | Algebra 1 Proficiency; Algebra 1 Chapter 11   |
| 8.SP.2     | Line of Best Fit (Eyeball Method)   |   |
| 8.SP.3     | <i>Modeling type (see below)</i>  |   |
| 8.SP.4     | <i>Modeling type (see below)</i>  |   |
| N-RN.1     | Rational Exponents  | Algebra 1 Chapter 8   |
| N-RN.2     | Properties of Exponents; Properties of Square Roots; Simplifying Radical Expressions; Nth Roots           | Algebra 1 Chapter 6   |
| N-RN.3     | <i>To be added soon</i>   |   |
| N-Q.1      | Unit Analysis; Convert Units of Area and Volume; Convert Between Systems                                  | Pre-Algebra Chapter 11  |
| N-Q.2      | <i>Modeling type (see below)</i>  |   |
| N-Q.3      | Significant Digits  |   |
| N-CN.1     | Complex Numbers   | Algebra 2 Proficiency; Algebra 2 Chapter 5  |
| N-CN.2     | Operations with Complex Numbers; Adding and Subtracting Complex Numbers; Multiplying Complex Numbers      | Algebra 2 Proficiency; Algebra 2 Chapter 5  |
| N-CN.3     | Operations with Complex Numbers; Dividing Complex Numbers; Conjugates; Absolute Value of a Complex Number | Algebra 2 Proficiency; Algebra 2 Chapter 5  |
| N-CN.4 (+) | <i>To be added soon</i>   |   |

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| N-CN.5 (+)  | <i>To be added soon</i>   |   |
| N-CN.6 (+)  | <i>To be added soon</i>   |   |
| N-CN.7      | Quadratic Formula   | Algebra 1 Chapter 10  |
| N-CN.8 (+)  | <i>To be added soon</i>   |   |
| N-CN.9 (+)  | Fundamental Theorem of Algebra  |   |
| N-VM.1 (+)  | Vectors; Magnitude and Direction of Vectors                                 | Geometry Chapter 7  |
| N-VM.2 (+)  | Vectors   | Geometry Chapter 7  |
| N-VM.3 (+)  | <i>To be added soon</i>   |   |
| N-VM.4 (+)  | <i>To be added soon</i>   |   |
| N-VM.5 (+)  | <i>To be added soon</i>   |   |
| N-VM.6 (+)  | Matrices  | Algebra 2 Proficiency; Algebra 2 Chapter 4                            |
| N-VM.7 (+)  | Scalar Multiplication of Matrices   | Algebra 2 Proficiency; Algebra 2 Chapter 4                            |
| N-VM.8 (+)  | Adding and Subtracting Matrices; Compatible Matrices; Matrix Multiplication | Algebra 2 Proficiency; Algebra 2 Chapter 4                            |
| N-VM.9 (+)  | Matrix Multiplication   | Algebra 2 Proficiency; Algebra 2 Chapter 4                            |
| N-VM.10 (+) | Identity Matrix   | Algebra 2 Chapter 4   |
| N-VM.11 (+) | <i>To be added soon</i>   |   |
| N-VM.12 (+) | <i>To be added soon</i>   |   |
| A-SSE.1     | Factors; Combining Like Terms   | Pre-Algebra Proficiency; Pre-Algebra Chapter 1; Algebra 1 Proficiency |
| A-SSE.2     | Factoring by Grouping; Difference of Squares; Perfect Squares               | Algebra 1 Proficiency; Algebra 1 Chapter 6; Algebra 2 Chapter 5       |
| A-SSE.3     | Solving Quadratic Equations by Square Roots;                                | Algebra 1 Chapter 6; Algebra 2  |



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|             | Completing the Square; Vertex of a Parabola; Exponential Functions   | Proficiency   |
| A-SSE.4     | Sum of a Finite Geometric Series; Geometric Sequences  | Algebra 2 Proficiency; Algebra 2 Chapter 9                      |
| A-APR.1     | <i>To be added soon</i>  |   |
| A-APR.2     | Remainder Theorem  |   |
| A-APR.3     | Graphing Polynomial Functions  | Algebra 2 Chapter 6   |
| A-APR.4     | <i>To be added soon</i>  |   |
| A-APR.5 (+) | Binomial Theorem; Yang Hui's Triangle  |   |
| A-APR.6     | Dividing Polynomials; Simplifying Rational Expressions   | Algebra 2 Proficiency; Algebra 2 Chapter 7                      |
| A-APR.7 (+) | <i>To be added soon</i>  |   |
| A-CED.1     | <i>Modeling type (see below)</i>   |   |
| A-CED.2     | Graphing Linear Equations; Graphing Linear Inequalities in Two Variables; Graphing Quadratic Equations                             | Algebra 1 Chapter 2; Algebra 1 Chapter 4; Algebra 1 Chapter 10  |
| A-CED.3     | <i>Modeling type (see below)</i>   |   |
| A-CED.4     | Formulas   | Algebra 1 Chapter 1; Algebra 2 Chapter 1                        |
| A-REI.1     | <i>To be added soon</i>  |   |
| A-REI.2     | Solving Rational Equations; Solving Radical Equations; Extraneous Solutions  | Algebra 1 Chapter 7; Algebra 1 Chapter 8                        |
| A-REI.3     | Solving One-Step Linear Equations; Solving Linear Equations; Solving One-Step Linear Inequalities; Solving Linear Inequalities     | Algebra 1 Proficiency; Algebra 1 Chapter 1; Algebra 1 Chapter 4 |
| A-REI.4     | Solving Quadratic Equations by Square Roots; Completing the Square; Solving Quadratic Equations Using Factoring; Quadratic Formula | Algebra 1 Proficiency; Algebra 1 Chapter 10                     |
| A-REI.5     | <i>To be added soon</i>  |   |

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| A-REI.6     | Solving Systems of Linear Equations; Solving Systems of Linear Equations Using Graphing; Solving Systems of Linear Equations Using Substitution; Solving Systems of Linear Equations Using Elimination  | Algebra 1 Proficiency; Algebra 1 Chapter 5   |
| A-REI.7     | Solving Systems of Linear Equations   | Algebra 1 Proficiency; Algebra 1 Chapter 5   |
| A-REI.8 (+) | <i>To be added soon</i>   |  |
| A-REI.9 (+) | Solving Systems of Linear Equations Using Matrices; Inverse of a Matrix   | Algebra 2 Chapter 4  |
| A-REI.10    | <i>To be added soon</i>   |  |
| A-REI.11    | <i>Explain type</i>   |  |
| A-REI.12    | Graphing Linear Inequalities in Two Variables; Systems of Linear Inequalities   | Algebra 2 Proficiency; Algebra 2 Chapter 3   |
| F-IF.1      | Domains; Domain and Range; Functions  | Algebra 1 Proficiency; Algebra 1 Chapter 9; Algebra 2 Chapter 2  |
| F-IF.2      | Functions   | Algebra 1 Chapter 9; Algebra 2 Chapter 2   |
| F-IF.3      | Sequences; Recursive Sequences; Fibonacci Numbers   | Algebra 2 Proficiency; Algebra 2 Chapter 9   |
| F-IF.4      |   |  |
| F-IF.5      | Domains; Domain and Range   | Algebra 1 Chapter 9; Algebra 2 Chapter 2   |
| F-IF.6      | Domains; Domain and Range   | Algebra 1 Chapter 9; Algebra 2 Chapter 2   |
| F-IF.7      | Graphing Linear Equations; Graphing Quadratic Equations; x-Intercepts; x-Intercepts of a Parabola; y-Intercepts; Graphing Square Root Functions; Vertex of a Parabola; Piecewise-Defined Functions; Graphing Polynomial Functions; Graphing Exponential and Logarithmic | Algebra 1 Proficiency; Algebra 2 Proficiency; Algebra 2 Chapter 1; Algebra 2 Chapter 5; Algebra 2 Chapter 6; Algebra 2 Chapter 8 |

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|            | Functions  |   |
| F-IF.8     | Axis of Symmetry of a Parabola; Vertex of a Parabola; x-Intercepts of a Parabola; Exponential Functions; Exponential Decay | Algebra 2 Proficiency; Algebra 2 Chapter 5; Algebra 2 Chapter 8 |
| F-IF.9     | Functions  | Algebra 1 Proficiency; Algebra 1 Chapter 9; Algebra 2 Chapter 2 |
| F-BF.1     | Functions; Composition of Functions  | Algebra 2 Proficiency; Algebra 2 Chapter 7                      |
| F-BF.2     | Geometric Sequences; Arithmetic Sequences  | Algebra 2 Chapter 9   |
| F-BF.3     | Graphing Exponential and Logarithmic Functions; Parabolas  | Algebra 2 Chapter 5; Algebra 2 Chapter 8                        |
| F-BF.4     | Inverse Functions  | Algebra 2 Proficiency; Algebra 2 Chapter 7                      |
| F-BF.5 (+) | Exponential and Logarithmic Functions; Logarithmic to Exponential Form   | Algebra 2 Proficiency; Algebra 2 Chapter 8                      |
| F-LE.1     | <i>Modeling Type (see below)</i>   |   |
| F-LE.2     | <i>Modeling Type (see below)</i>   |   |
| F-LE.3     | <i>Modeling Type (see below)</i>   |   |
| F-LE.4     | <i>Modeling Type (see below)</i>   |   |
| F-LE.5     | <i>Modeling Type (see below)</i>   |   |
| F-TF.1     | Radian Measure of an Angle; Radian to Degree Measure   | Algebra 2 Chapter 10  |
| F-TF.2     | Trigonometric Ratios; Reference Angle  | Algebra 2 Chapter 10  |
| F-TF.3 (+) | Trigonometric Values for Common Angles; 30-60-90 Triangles; 45-45-90 Triangles   | Algebra 2 Chapter 10  |
| F-TF.4 (+) | Reference Angle; Even and Odd Functions; Trigonometric Functions; Co-Function and Odd/Even Identities                      |   |

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| F-TF.5     | <i>Modeling type (see below)</i>   |   |
| F-TF.6 (+) | Inverse Trigonometric Functions  |   |
| F-TF.7 (+) | Inverse Trigonometric Functions  |   |
| F-TF.8     | Trigonometric Identities   | Algebra 2 Chapter 11                        |
| F-TF.9 (+) | Trigonometric Identities   |   |
| G-CO.1     | Angles; Circle; Perpendicular Lines; Parallel and Perpendicular Lines; Lines, Segments, and Rays; Arcs   | Geometry Chapter 1                          |
| G-CO.2     | Transformations of Graphs; Center of Rotation  | Geometry Proficiency;<br>Geometry Chapter 8 |
| G-CO.3     | Line Symmetry  | Geometry Proficiency;<br>Geometry Chapter 8 |
| G-CO.4     | Transformations of Graphs  | Geometry Proficiency;<br>Geometry Chapter 8 |
| G-CO.5     | Transformations of Graphs  | Geometry Proficiency;<br>Geometry Chapter 8 |
| G-CO.6     | Transformations of Graphs  | Geometry Proficiency;<br>Geometry Chapter 8 |
| G-CO.7     | Congruent Triangles  | Geometry Proficiency                        |
| G-CO.8     | Congruent Triangles; AAS Postulate; ASA Postulate; SAS Postulate; SSS Postulate  | Geometry Proficiency;<br>Geometry Chapter 4 |
| G-CO.9     | Vertical Angles; Alternate Interior Angles Theorem; Alternate Exterior Angles Theorem; Alternate Interior Angles; Alternate Exterior Angles; Corresponding Angles; Corresponding Angles Postulate; Perpendicular Transversal Theorem; Perpendicular Bisector | Geometry Proficiency;<br>Geometry Chapter 3 |
| G-CO.10    | Angle Sum Theorem; Isosceles Triangle Theorem; Converse of the Isosceles Triangle Theorem; Medians of a Triangle; Triangle Midsegment Theorem; Triangle Inequality Theorem; Triangle   | Geometry Proficiency;<br>Geometry Chapter 4 |

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|              | Angle Bisector Theorem   |  |
| G-CO.11      | Parallelogram; Diagonals of a Parallelogram                      | Geometry Proficiency;<br>Geometry Chapter 5    |
| G-CO.12      | <i>Drawing/construction type (see below)</i>                     |  |
| G-CO.13      | <i>Drawing/construction type(see below)</i>                      |  |
| G-SRT.1      | Dilation; Scale Factor   | Geometry Proficiency;<br>Geometry Chapter 6    |
| G-SRT.2      | Similar Triangles; SSS Similarity                                | Geometry Proficiency;<br>Geometry Chapter 6    |
| G-SRT.3      | AA Similarity  | Geometry Proficiency;<br>Geometry Chapter 6    |
| G-SRT.4      | Triangle Proportionality Theorem                                 | Geometry Proficiency;<br>Geometry Chapter 6    |
| G-SRT.5      | Similar Triangles  | Geometry Proficiency;<br>Geometry Chapter 6    |
| G-SRT.6      | Trigonometric Ratios   | Geometry Proficiency;<br>Geometry Chapter 7    |
| G-SRT.7      | Trigonometric Identities; Co-Function and<br>Odd/Even Identities | Geometry Chapter 7                             |
| G-SRT.8      | Trigonometric Ratios   | Geometry Proficiency;<br>Geometry Chapter 7    |
| G-SRT.9 (+)  | <i>To be added soon</i>  |  |
| G-SRT.10 (+) | Law of Sines; Law of Cosines                                     | Geometry Proficiency;<br>Algebra 2 Proficiency |
| G-SRT.11 (+) | Law of Sines; Law of Cosines                                     | Geometry Proficiency;<br>Algebra 2 Proficiency |
| G-C.1        | <i>To be added soon</i>  |  |
| G-C.2        | Central Angles; Radius; Chord                                    | Geometry Proficiency;<br>Geometry Chapter 9    |

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| G-C.3       | Inscribing a Quadrilateral  | Geometry Chapter 5   |
| G-C.4 (+)   | <i>Drawing/construction type (see below)</i>                                    |  |
| G-C.5       | Sectors; Intersecting Chords  | Geometry Proficiency;<br>Geometry Chapter 9                              |
| G-GPE.1     | Equation of a Circle  | Geometry Proficiency;  |
| G-GPE.2     | Focus; Parabolas  |  |
| G-GPE.3 (+) | Ellipse; Hyperbolas; Major and Minor Axes of Conics; Focus                      |  |
| G-GPE.4     | <i>To be added soon</i>   |  |
| G-GPE.5     | Slope; Parallel and Perpendicular Lines   | Geometry Proficiency;<br>Geometry, Chapter 3                             |
| G-GPE.6     | Segment Addition Postulate  | Geometry Proficiency;<br>Geometry, Chapter 1                             |
| G-GPE.7     | Perimeter; Distance Formula   | Geometry Proficiency;<br>Geometry, Chapter 7                             |
| G-GMD.1     | Circle  | Geometry Proficiency;<br>Geometry, Chapter 9                             |
| G-GMD.2 (+) | <i>To be added soon</i>   |  |
| G-GMD.3     | Volume of a Cone; Volume of a Cylinder; Volume of a Pyramid; Volume of a Sphere | Geometry Proficiency;<br>Geometry, Chapter 11                            |
| G-GMD.4     | <i>To be added soon</i>   |  |
| G-MG.1      | <i>Modeling type</i>  |  |
| G-MG.2      | <i>Modeling type (see below)</i>  |  |
| G-MG.3      | <i>Modeling type (see below)</i>  |  |
| S-ID.1      | Line Plots; Box-and-Whisker Plots   | Pre-Algebra Proficiency;<br>Algebra 1 Proficiency; Algebra 1, Chapter 11 |
| S-ID.2      | Mean, Median, Mode; Interquartile; Standard Deviation; Normal Distribution      | Pre-Algebra Proficiency;<br>Algebra 1 Proficiency; Algebra               |

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|        |  | 1, Chapter 11  |
| S-ID.3 | Mean, Median, Mode   | Pre-Algebra Proficiency;<br>Algebra 1 Proficiency;                 |
| S-ID.4 | <i>To be added soon</i>  |  |
| S-ID.5 | <i>Coming soon</i>   |  |
| S-ID.6 | Scatter Plots  | Algebra 1 Proficiency; Algebra 1, Chapter 11; Algebra 2, Chapter 2 |
| S-ID.7 | <i>To be added soon</i>  |  |
| S-ID.8 | Line of Best Fit   | Algebra 1, Chapter 11  |
| S-ID.9 | Correlation and Causal Relation  | Algebra 1, Chapter 11  |
| S-IC.1 | Random Sampling  | Algebra 1, Chapter 13  |
| S-IC.2 | <i>To be added soon</i>  |  |
| S-IC.3 | Random Sampling  | Algebra 1, Chapter 13  |
| S-IC.4 | <i>To be added soon</i>  |  |
| S-IC.5 | <i>To be added soon</i>  |  |
| S-IC.6 | <i>To be added soon</i>  |  |
| S-CP.1 | Sample Space; Complement of an Event   | Algebra 1, Chapter 13  |
| S-CP.2 | Independent and Dependent Events;<br>Independent Events                          | Algebra 1, Chapter 13  |
| S-CP.3 | Conditional Probability; Independent and<br>Dependent Events                     | Algebra 1, Chapter 13  |
| S-CP.4 | <i>Modeling type (see below)</i>   |  |
| S-CP.5 | Conditional Probability; Independent and<br>Dependent Events; Independent Events | Algebra 1, Chapter 13  |
| S-CP.6 | Conditional Probability  | Algebra 1, Chapter 13  |
| S-CP.7 | Mutually Exclusive Events  | Algebra 1, Chapter 13  |

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| S-CP.8 (+) | <i>To be added soon</i>    |                       |
| S-CP.9 (+) | Permutations; Combinations | Algebra 1, Chapter 13 |
| S-MD.1 (+) | <i>To be added soon</i>    |                       |
| S-MD.2 (+) | <i>To be added soon</i>    |                       |
| S-MD.3 (+) | <i>To be added soon</i>    |                       |
| S-MD.4 (+) | <i>To be added soon</i>    |                       |
| S-MD.5 (+) | <i>To be added soon</i>    |                       |
| S-MD.6 (+) | <i>To be added soon</i>    |                       |
| S-MD.7 (+) | <i>To be added soon</i>    |                       |

There are a few types of standards which are not covered, for the reasons detailed below.

### **Modeling**

While five of the six conceptual categories—Number and Quantity, Algebra, Functions, Geometry, and Statistics/Probability—are well-covered, the sixth category, modeling is best done outside of programs like Catchup Math. Our program aims to give students the practice they need to master the core skills and cement their conceptual understanding; *applying* these skills and concepts to real-world problems is better practiced in the classroom. Still, where possible, Catchup Math does include word problems which require students to find mathematical models for a described situation.

### **Explain/Prove**

Some standards state that a student is expected to “explain why” or “prove” that something is true. Through activities, videos, and practice problems and our online whiteboard, Catchup Math gives students the tools they need to explain concepts and prove theorems. However, the program cannot assess the student’s ability to make a strong verbal argument or write a valid proof; this is necessarily left to the classroom teacher.

### **Drawing/Constructions**

Certain types of drawing and construction skills are not covered by Catchup Math, for example: geometric constructions with ruler and compass; drawings of two-dimensional representations of three-dimensional objects on isometric grid paper.