## MEMORANDUM

## TO: MpodbridgedBoard of Education

FROM: Jongtyan S. Budd, Ph.D., Superintendent
DATE: May 13, 2021

## RE: Approval of Textbook: Reveal Math Accelerated (Grade 6 Pre-Algebra)

As discussed at the February 18 and April 22, 2021, meetings of the Curriculum Committee, Pre-Algebra will be offered to grade 6 students with age-advanced abstract cognitive skills, aligning with many other comparable districts, and with the curriculum of Region No. 5 (Amity). To support the scope and sequence of that curriculum, I recommend the Board's adoption of Reveal Math Accelerated (2021), which is a twovolume print text supported by ample digital resources. Please see attached the relevant Scope and Sequence aligned to the Connecticut Core Standards in Mathematics.

I recommend the following motion:
Move that we adopt Reveal Math Accelerated for use in Grade 6 Pre-Algebra.

Mc
Graw Hill

## Scope and Sequence

 Alignment Guide Grades 6-8Accelerated Pathway


|  | Reveal Math COURSE 1 | Reveal Math Accelerated | Reveal Algebra 1 |
| :---: | :---: | :---: | :---: |
| The Number System and Quantity |  |  |  |
| Computing with Multi-Digit Whole Numbers |  |  |  |
| Dividing Multi-Digit Numbers | 6.NS.B. 2 |  |  |
| Greatest Common Factor | 6.NS.B. 4 |  |  |
| Least Common Multiple | 6.NS.B. 4 |  |  |
| Using the Distributive Property | 6.NS.B. 4 |  |  |
| Dividing Fractions |  |  |  |
| Dividing Fractions by Fractions | 6.NS.A. 1 |  |  |
| Understanding Rational Numbers |  |  |  |
| Understanding Positive and Negative Numbers | 6.NS.C. 5 |  |  |
| Understanding Rational Numbers as Points on Number Lines | 6.NS.C.6, 6.NS.C.6.C | 7.NS.A.1, 7.NS.A.1.C |  |
| Understanding Opposite Signs of Numbers as Opposite Sides of 0 on Number Line | 6.NS.C.6.A |  |  |
| Understanding Signs of Numbers in Ordered Pairs Indicating Quadrants of Points Graphed | 6.NS.C.6.B |  |  |
| Finding and Positioning Numbers on Number Lines and Coordinate Planes | 6.NS.C. 8 |  |  |
| Distance Between Points on the Coordinate Plane | 6.NS.C. 8 |  |  |
| Connecting Inequalities and Positions on Number Lines | 6.NS.C.7.A |  |  |
| Ordering Rational Numbers | 6.NS.C.7.B |  |  |
| Absolute Values of Rational Numbers | 6.NS.C.7.C |  |  |
| Distinguishing Between Absolute Value and Order | 6.NS.C.7.D |  |  |
| Understanding that Opposite Quantities Make 0 |  | 7.NS.A.1, 7.NS.A.1.A, 7.NS.A.1.B |  |

KEY: | Introduce | Develop |
| :---: | :---: |
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|  | Implicit Use |

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|  | Reveal Math COURSE 1 | Reveal Math Accelerated | Reveal Algebra 1 |
| :---: | :---: | :---: | :---: |
| Operations with Rational Numbers |  |  |  |
| Operations with Positive Decimals | 6.NS.A. 3 |  |  |
| Adding and Subtracting Integers |  | 7.NS.A.1, 7.NS.A.1.B, <br> 7.NS.A.1.C, <br> 7.NS.A.1.D |  |
| Multiplying and Dividing Integers |  | $\begin{aligned} & \text { 7.NS.A.2, } \\ & \text { 7.NS.A.2.A, } \\ & \text { 7.NS.A.2.B, } \\ & \text { 7.NS.A.2.C } \end{aligned}$ |  |
| Adding and Subtracting Positive and Negative Rational Numbers |  | $\begin{aligned} & \text { 7.NS.A.1, 7.NS.A.1.B, } \\ & \text { 7.NS.A.1.C, } \\ & \text { 7.NS.A.1.D } \end{aligned}$ |  |
| Multiplying and Dividing Positive and Negative Rational Numbers |  | $\begin{aligned} & \text { 7.NS.A.2, } \\ & \text { 7.NS.A.2.A, } \\ & \text { 7.NS.A.2.B, } \\ & \text { 7.NS.A.2.C } \end{aligned}$ |  |
| Distance between Rational Numbers on a Number Line |  | 7.NS.A.1.B, <br> 7.NS.A.1.C |  |
| Converting Rational Numbers to Decimals and Vice Versa |  | 7.NS.A.2.D, <br> 8.NS.A. 1 |  |
| Solving Problems Involving Four Operations with Rational Numbers |  | 7.NS.A. 3 |  |
| Product of Two Rational Numbers Is Rational |  |  | N.RN. 3 |
| Irrational Numbers |  |  |  |
| Understanding Numbers that Are Not Rational Are Irrational |  | 8.NS.A. 1 |  |
| Using Rational Approximations of Irrational Numbers |  | 8.NS.A. 2 |  |
| Sum of Rational Number and Irrational Number Is Irrational |  |  | N.RN. 3 |
| Product of Nonzero Rational Number and Irrational Number Is Irrational |  |  | N.RN. 3 |
| Rational Exponents |  |  |  |
| Extending Integer Exponents to Rational Exponents |  |  | N.RN. 1 |
| Relating Rational Exponents to Radicals |  |  | N.RN. 1 |
| Rewriting Expressions Involving Radicals and Rational Exponents |  |  | N.RN. 2 |


|  | Reveal Math <br> COURSE 1 | Reveal Math <br> Accelerated | Reveal <br> Algebra 1 |
| :--- | :--- | :--- | :--- |
| Reason Quantitatively and Using Units |  |  | N.Q.1 |
| Using Units to Understand Problems and <br> Solutions |  | N.Q.2 |  |
| Defining Appropriate Quantities for <br> Descriptive Modeling |  | N.Q.3 |  |
| Choosing Accuracy Levels |  |  |  |
| Proportional Relationships and Algebraic Thinking |  |  |  |


| Proportional Relationships |  |  |  |
| :---: | :---: | :---: | :---: |
| Understanding and Using Ratios and Ratio Language | 6.RP.A. 1 |  |  |
| Understanding Rates and Unit Rates | 6.RP.A. 2 | 7.RP.A. 1 |  |
| Finding Equivalent Ratios | 6.RP.A.3.A | 7.RP.A.2.A |  |
| Graphing and Comparing Equivalent Ratios | 6.RP.A.3.A |  |  |
| Solving Ratio and Unit Rate Problems | $\begin{aligned} & \text { 6.RP.A.3, } \\ & \text { 6.RP.A.3.B } \end{aligned}$ | 7.RP.A.1, 7.G.A.1, 7.SP.A.2, 7.G.A. 1 |  |
| Finding Percent of a Number | 6.RP.A.3.C |  |  |
| Solving Problems by Finding the Whole | 6.RP.A.3.D |  |  |
| Converting Customary Measurements Using Ratio Reasoning | 6.RP.A.3.D |  |  |
| Understanding Proportional Relationships |  | 7.RP.A. 2 |  |
| Using Tables and Graphs to Determine Proportionality |  | $\begin{aligned} & \text { 7.RP.A.2, } \\ & \text { 7.RP.A.2.A } \end{aligned}$ |  |
| Identifying the Constant of Proportionality and Interpreting it as the Unit Rate |  | $\begin{aligned} & \text { 7.RP.A.2, } \\ & \text { 7.RP.A.2.B } \end{aligned}$ |  |
| Representing Proportional Relationships with Equations |  | $\begin{aligned} & \text { 7.RP.A.2, } \\ & \text { 7.RP.A.2.C } \end{aligned}$ |  |
| Explaining Special Points on Graphs of Proportional Relationships |  | $\begin{aligned} & \text { 7.RP.A.2, } \\ & \text { 7.RP.A.2.D, } \end{aligned}$ <br> 8.EE.B. 5 |  |
| Solving Multi-Step Problems Related to Ratios and Percents |  | 7.RP.A. 3 |  |

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|  | Reveal Math COURSE 1 | Reveal Math Accelerated | Reveal Algebra 1 |
| :---: | :---: | :---: | :---: |
| Graphing Proportional Relationships, Interpreting the Unit Rate as the Slope |  | 7.RP.A.2, <br> 7.RP.A.2.A, <br> 7.RP.A.2.B, <br> 7.RP.A.2.D, <br> 8.EE.B. 5 |  |
| Comparing Proportional Relationships |  | 8.EE.B. 5 |  |
| Expressions |  |  |  |
| Writing and Evaluating Numerical Expressions | 6.EE.A. 1 |  | A.SSE.1a, A.SSE. 2 |
| Writing and Evaluating Algebraic Expressions | 6.EE.A.2, <br> 6.EE.A.2.A, <br> 6.EE.A.2.B, <br> 6.EE.A.2.C |  | A.SSE.1a, A.SSE. 2 |
| Order of Operations | 6.EE.A.2.C |  | A.SSE.1a |
| Adding and Subtracting Linear Expressions |  | 7.EE.A. 1 | A.SSE.1a, A.SSE. 2 |
| Factoring and Expanding Linear Expressions |  | 7.EE.A. 1 |  |
| Writing Expressions to Represent Real-World Problems | 6.EE.B. 6 | 7.EE.A.2, 7.EE.B. 3 |  |
| Identifying Equivalent Expressions Using Substitution | 6.EE.A. 4 |  |  |
| Using the Properties of Operations to Generate Equivalent Expressions | 6.EE.A. 3 | 7.EE.A.1, 7.EE.A.2, 7.EE.3, 8.EE.A. 1 |  |
| Using the Properties of Operations |  |  | A.SSE.1a, A.SSE. 2 |
| Generating Equivalent Expressions |  |  | A.SSE. 3 |
| Properties of Integer Exponents |  | 8.EE.A. 1 |  |
| Writing Numbers in Scientific Notation and Vice Versa |  | 8.EE.A. 3 |  |
| Operations with Numbers in Scientific Notation |  | 8.EE.A. 4 |  |
| Transforming Exponential Expressions |  |  | A.SSE.3c |
| Interpreting Parts of Expressions |  |  | A.SSE.1a |
| Interpreting Complicated Expressions |  |  | A.SSE.1b |
| Rewriting Expressions for Clarity |  |  | A.SSE. 2 |


|  | Reveal Math COURSE 1 | Reveal Math Accelerated | Reveal Algebra 1 |
| :---: | :---: | :---: | :---: |
| Polynomial and Rational Expressions |  |  |  |
| Closure of Polynomials Expressions |  |  | A.APR. 1 |
| Adding, Subtracting, and Multiplying Polynomials |  |  | A.APR. 1 |
| Factoring Quadratic Expressions |  |  | A.SSE.3a |
| Completing the Square in Quadratic Expressions |  |  | A.SSE.3b |
| One-Variable Equations |  |  |  |
| Solving Equations by Using a Replacement Set | 6.EE.B. 5 |  |  |
| Writing and Solving Equations to Solve Problems | 6.EE.B.6, 6.EE.B. 7 | 7.EE.B.4, <br> 7.EE.B.4.A, <br> 7.G.B.4, 7.G.B.5, <br> 7.G.B.6, 8.EE.C.7, <br> 8.EE.C.7.A, <br> 8.EE.C.7.B, 8.G.C. 9 | A.CED. 1 |
| Determining One, Infinitely Many, or No Solutions |  | 8.EE.C.7, 8.EE.C.7.A | A.CED. 1 |
| Solving Simple Quadratic and Cubic Equations by Taking Square and Cube Roots |  | 8.EE.A. 2 |  |
| Solving Linear Equations |  |  | A.CED.1, A.REI. 3 |
| Solving Equations with Letter Coefficients |  |  | A.REI. 3 |
| Solving Equations by Using the Distributive Property |  |  | A.CED. 1 |
| Explaining Each Step in Solving Equations |  |  | A.REI. 1 |
| Solving Quadratic Equations by Factoring |  |  | A.REI.4b |
| Solving Quadratic Equations by Taking Square Roots |  |  | A.REI.4b |
| Solving Quadratic Equations by Completing the Square |  |  | A.REI.4a |
| Solving Quadratic Equations by Using the Quadratic Formula |  |  | A.REI.4b |
| One-Variable Inequalities |  |  |  |

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|  | Reveal Math COURSE 1 | Reveal Math Accelerated | Reveal Algebra 1 |
| :---: | :---: | :---: | :---: |
| Writing Inequalities | 6.EE.B.8 | 7.EE.B.4, 7.EE.B.4.B | A.CED. 1 |
| Solving Linear Inequalities | 6.EE.B. 8 | 7.EE.B.4, 7.EE.B.4.B | A.CED.1, A.REI. 3 |
| Graphing Solutions of Inequalities on Number Lines | 6.EE.B. 8 | 7.EE.B.4, 7.EE.B.4.B |  |
| Representing Constraints by Using Equations or Inequalities |  |  | A.CED 3 |
| Two-Variable Equations and Functions |  |  |  |
| Understanding Relationships Between Two Variables | 6.EE.C. 9 |  |  |
| Represent Relationships between Two Variables with Tables, Graphs, and Equations | 6.EE.C. 9 |  |  |
| Writing Equations to Represent Functions |  |  | A.CED. 2 |
| Graphing Proportional Relations and Equations |  |  | A.CED. 2 |
| Slope of a Line |  |  | 8.EE. 6 |
| Rearranging Equations and Formulas |  |  | A.CED. 4 |
| Relating Graphs and Equations |  |  | A.REI. 10 |
| Intersections of Graphs |  |  | A.REI. 11 |
| Graphing Solutions of Inequalities |  |  | A.REI. 12 |
| Systems of Equations and Inequalities |  |  |  |
| Solving Systems by Graphing |  |  | 8.EE.C.8, 8.EE.C.8.A, A.REI. 6 |
| Solving Systems Algebraically |  |  | 8.EE.C.8, <br> 8.EE.C.8.B, A.REI. 6 |
| Solving Problems by Writing and Solving a System of Equations |  |  | 8.EE.C.8, <br> 8.EE.C.8.C |
| Proving Row Operations |  |  | A.REI. 5 |
| Solving Systems of Linear and Quadratic Equations |  |  | A.REI. 7 |
| Graphing Solutions of Systems of Inequalities |  |  | A.REI. 12 |


|  | Reveal Math COURSE 1 | Reveal Math Accelerated | Reveal Algebra 1 |
| :---: | :---: | :---: | :---: |
| Functions |  |  |  |
| Defining and Interpreting Functions |  |  |  |
| Definition of Functions |  |  | $\begin{aligned} & \text { 8.F.A.1, 8.F.A.2, } \\ & \text { 8.F.A.3, F.IF. } 1 \end{aligned}$ |
| Multiple Representations of Functions |  |  | 8.F.A. 2 |
| Using Function Notation |  |  | F.IF. 2 |
| Using Functions to Model |  |  | 8.F.B.4, F.IF. 4 |
| Graphs of Functions |  |  | F.IF. 4 |
| Relating Domains to Relationships |  |  | F.IF. 5 |
| Rate of Change and Initial Value |  |  | 8.F.B. 4 |
| Rate of Change |  |  | F.IF. 6 |
| Linear Functions |  |  | F.IF.7a |
| Comparing Functions |  |  | 8.F.A.2, F.IF. 9 |
| Nonlinear Functions |  |  |  |
| Sketching and Describing Qualitative Graphs |  |  | 8.F.B. 5 |
| Comparing Linear and Nonlinear Functions |  |  | 8.F.A. 3 |
| Quadratic Functions |  |  | F.IF.7a |
| Piecewise-Defined Functions |  |  | F.IF.7b |
| Exponential Functions |  |  | F.IF.7e |
| Factor to Analyze Functions |  |  | F.IF.8a |
| Interpreting Expressions for Exponential Functions |  |  | F.IF.8b |
| Building Functions that Model Relationships |  |  |  |
| Writing Functions from Relationships |  |  | F.BF.1a |
| Combining Function Types |  |  | F.BF.1b |
| Sequences as Functions |  |  | F.IF. 3 |

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| :--- | :--- | :--- | :--- | :--- |
| Arithmetic Sequences |  |  | F.BF.2 |


|  | Reveal Math COURSE 1 | Reveal Math Accelerated | Reveal Algebra 1 |
| :---: | :---: | :---: | :---: |
| Congruence, Similarity, and Transformations |  |  |  |
| Congruence and Transformations |  | $\begin{aligned} & \text { 8.G.A.1, 8.G.A.1.A, } \\ & \text { 8.G.A.1.B, } \\ & \text { 8.G.A.1.C, 8.G.A. } \end{aligned}$ |  |
| Describing Transformations Using Coordinates |  | 8.G.A. 3 |  |
| Congruent Figures |  | 8.G.A.2, 8.G.A. 3 |  |
| Scale Drawings |  | $\begin{aligned} & \text { 7.G.A.1, 8.G.A.3, } \\ & \text { 8.G.A. } 4 \end{aligned}$ |  |
| Similarity and Transformations |  | 8.G.A. 4 |  |
| Similar Polygons |  | 8.G.A.4, 8.G.A.5, 8.EE.B. 5 |  |
| Analytic Geometry |  |  |  |
| Drawing Polygons in the Coordinate Plane | 6.G.A. 3 | 8.G.A. 3 |  |
| Geometric Modeling |  |  |  |
| Describing Real-World Objects | $\begin{aligned} & \text { 6.G.A.1, 6.G.A.2, } \\ & \text { 6.G.A.3, 6.G.A. } 4 \end{aligned}$ | $\begin{aligned} & \text { 7.G.B.4, 7.G.B.6, } \\ & \text { 8.G.C. } 9 \end{aligned}$ |  |
| Statistics and Probability |  |  |  |
| Statistics: Univariate Data |  |  |  |
| Statistics and Statistical Questions | 6.SP.A.1, 6.SP.A. 2 | 7.SP.A. 1 |  |
| Distributions | $\begin{aligned} & \text { 6.SP.A.2, 6.SP.A.4, } \\ & \text { 6.SP.A.5, } \\ & \text { 6.SP.A.5.A, } \\ & \text { 6.SP.A.5.B, } \\ & \text { 6.SP.A.5.C, } \\ & \text { 6.SP.A.5.D } \end{aligned}$ |  | S.ID. 3 |
| Measures of Center | $\begin{aligned} & \text { 6.SP.A.3, } \\ & \text { 6.SP.A.5.C } \end{aligned}$ |  | S.ID. 3 |
| Measures of Variation | $\begin{aligned} & \text { 6.SP.A.3, } \\ & \text { 6.SP.A.5.C } \end{aligned}$ |  | S.ID. 3 |
| Histograms, Box Plots | 6.SP.A. 4 |  |  |
| Dot Plots, Histograms, Box Plots |  |  | S.ID. 1 |

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|  | Reveal Math COURSE 1 | Reveal Math Accelerated | Reveal Algebra 1 |
| :---: | :---: | :---: | :---: |
| Summarizing Numerical Data | 6.SP.A.5, <br> 6.SP.A.5.A, <br> 6.SP.A.5.B, <br> 6.SP.A.5.C, <br> 6.SP.A.5.D |  |  |
| Random Sampling |  | 7.SP.A.1, 7.SP.A. 2 |  |
| Drawing Statistical Inferences |  | 7.SP.A.2, 7.SP.B. 4 |  |
| Generating Multiple Samples |  | 7.SP.A. 2 |  |
| Comparing Two Populations |  | 7.SP.B.3, 7.SP.B. 4 |  |
| Comparing Distributions |  |  | S.ID. 2 |
| Statistics: Bivariate Data |  |  |  |
| Scatter Plots and Associations |  |  | 8.SP.A.1, S.ID. 6 |
| Fitting a Line or Curve to Data |  |  | 8.SP.A.2, S.ID. 6 |
| Using the Equation of a Line of Fit to Solve Problems |  |  | 8.SP.A. 3 |
| Two-Way Frequency Tables and Associations |  |  | 8.SP.A.4, S.ID. 5 |
| Interpreting the Slope and Intercept |  |  | S.ID. 7 |
| Correlation Coefficients |  |  | S.ID. 8 |
| Correlation and Causation |  |  | S.ID. 9 |
| Interpreting the Slope and Intercept |  |  | S.ID. 7 |
| Probability |  |  |  |
| Likelihood of Chance Events |  | 7.SP.C. 5 |  |
| Representing Sample Spaces |  | 7.SP.C.7, 7.SP.C. 8 |  |
| Understanding Probability |  | 7.SP.C. 5 |  |
| Relative Frequency and Experimental Probability |  | 7.SP.C. 6 |  |
| Comparing Relative Frequency to Theoretical Probability |  | 7.SP.C. 7 |  |
| Developing Probability Models |  | 7.SP.C. 7 |  |
| Finding Theoretical Probability of Simple Events |  | 7.SP.C. 7 |  |
| Finding Theoretical Probability of Compound Events |  | 7.SP.C. 8 |  |
| Designing and Using Simulations |  | 7.SP.C. 8 |  |

