

## Textbook Alignment to the Utah Core – 6<sup>th</sup> Grade Mathematics

*This alignment has been completed using an “Independent Alignment Vendor” from the USOE approved list ([www.schools.utah.gov/curr/imc/indvvendor.html](http://www.schools.utah.gov/curr/imc/indvvendor.html).) Yes  No*

Name of Company and Individual Conducting Alignment:  
Coleman Educational Research

A “Credential Sheet” has been completed on the above company/evaluator and is (Please check one of the following):

On record with the USOE.

The “Credential Sheet” is attached to this alignment.

**Instructional Materials Evaluation Criteria (name and grade of the core document used to align):** 6<sup>th</sup> Grade Mathematics Core Curriculum

**Title:** Scott Foresman–Addison Wesley enVisionMATH, c. 2011, Grade Six, SE ISBN: 9780328489756; TE ISBN: 9780328544691

**Publisher:** *Pearson Education, Inc., publishing as Scott Foresman*

**Overall percentage of coverage in the *Student Edition (SE)* and *Teacher Edition (TE)* of the Utah State Core Curriculum:** 100%

**Overall percentage of coverage in *ancillary materials* of the Utah Core Curriculum:** \_\_\_\_\_%

| <b>STANDARD I: Students will expand number sense to include operations with rational numbers.</b> |  |  |   |  |
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| <b>Percentage of coverage in the <i>student and teacher edition</i> for Standard I: 100%</b>      |  | <b>Percentage of coverage not in student or teacher edition, but covered in the <i>ancillary material</i> for Standard I: _____%</b> |   |  |
| <b>OBJECTIVES &amp; INDICATORS</b>  |  | <b>Coverage in <i>Student Edition (SE) and Teacher Edition (TE)</i> (pg #'s, etc.)</b>   | <b>Coverage in <i>Ancillary Material</i> (titles, pg #'s, etc.)</b> | <b><i>Not covered in TE, SE or ancillaries</i> ✓</b> |
| <b>Objective 1.1: Represent rational numbers in a variety of ways.</b>                            |  |  |   |  |
| <b>a.</b>   | Recognize a rational number as a ratio of two integers, a to b, where b is not equal to zero.  | <b>SE/TE:</b> 150–151, 226, 300–301  |   |  |
| <b>b.</b>   | Change whole numbers with exponents to standard form (e.g., $2^4 = 16$ ) and recognize that any non-zero whole number to the zero power equals 1 (e.g., $9^0 = 1$ ).                                 | <b>SE/TE:</b> 10B, 10–12   |   |  |
| <b>c.</b>   | Write a whole number in expanded form using exponents (e.g., $876,539 = 8 \times 10^5 + 7 \times 10^4 + 6 \times 10^3 + 5 \times 10^2 + 3 \times 10^1 + 9 \times 10^0$ ).                            | <b>SE/TE:</b> 10–12, 13B   |   |  |
| <b>d.</b>   | Express numbers in scientific notation using positive powers of ten.   | <b>SE/TE:</b> 82B, 82–83, 83B  |   |  |
| <b>Objective 1.2: Explain relationships and equivalencies among rational numbers.</b>             |  |  |   |  |
| <b>a.</b>   | Place rational numbers on the number line.   | <b>SE/TE:</b> 226B, 226–228, 229B  |   |  |
| <b>b.</b>   | Compare and order rational numbers, including positive and negative mixed fractions and decimals, using a variety of methods and symbols, including the number line and finding common denominators. | <b>SE/TE:</b> 22–23, 63, 132, 224, 226–228   |   |  |
| <b>c.</b>   | Find equivalent forms for common fractions, decimals, percents, and ratios, including repeating or terminating decimals.   | <b>SE/TE:</b> 132–133, 134–135, 146–147, 150–151, 302–303, 348–349, 350–351  |   |  |

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| <b>d.</b>   | Relate percents less than 1% or greater than 100% to equivalent fractions, decimals, whole numbers, and mixed numbers.                               | <b>SE/TE:</b> 350B, 350–351, 351B                         |  |  |
| <b>e.</b>   | Recognize that the sum of an integer and its additive inverse is zero.   | <b>SE/TE:</b> 233, 233B                                   |  |  |
| <b>Objective 1.3: Use number theory concepts to find prime factorizations, least common multiples, and greatest common factors.</b> |  |   |  |  |
| <b>a.</b>   | Determine whether whole numbers to 100 are prime, composite, or neither.   | <b>SE/TE:</b> 124B, 124–125                               |  |  |
| <b>b.</b>   | Find the prime factorization of composite numbers to 100.  | <b>SE/TE:</b> 124B, 124–125, 125B, 126                    |  |  |
| <b>c.</b>   | Find the greatest common factor and least common multiple for two numbers using a variety of methods (e.g., list of multiples, prime factorization). | <b>SE/TE:</b> 126–127, 134–135, 164–165, 166–167          |  |  |
| <b>Objective 1.4: Model and illustrate meanings of operations and describe how they relate.</b>                                     |  |   |  |  |
| <b>a.</b>   | Relate fractions to multiplication and division and use this relationship to explain procedures for multiplying and dividing fractions.              | <b>SE/TE:</b> 144–145, 186–187, 190–191, 202–203, 204–205 |  |  |
| <b>b.</b>   | Recognize that ratios derive from pairs of rows in the multiplication table and connect with equivalent fractions.                                   | <b>SE/TE:</b> 304   |  |  |

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| c.   | Give mixed number and decimal solutions to division problems with whole numbers.  | SE/TE: 74B, 74, 75B  |  |  |
| <b>Objective 1.5: Solve problems involving multiple steps.</b>   |   |  |  |  |
| a.   | Select appropriate methods to solve a multi-step problem involving multiplication and division of fractions and decimals. | SE/TE: 84B, 84–86, 87B, 194–195  |  |  |
| b.   | Use estimation to determine whether results obtained using a calculator are reasonable.                                   | SE/TE: This objective can be developed on these pages: 64–65, 78–79, 87, 354–355   |  |  |
| c.   | Use estimation or calculation to compute results, depending on the context and numbers involved in the problem.           | SE/TE: 63, 69, 171, 179, 189, 209, 211, 244, 309, 312, 327, 332, 356, 360, 411, 482  |  |  |
| d.   | Solve problems involving ratios and proportions.  | SE/TE: 300–301, 302–304, 322–323, 324–325, 326–327, 330–332, 334–337   |  |  |
| <b>Objective 1.6: Demonstrate proficiency with the four operations, with positive rational numbers, and with addition and subtraction of integers.</b> |   |  |  |  |
| a.   | Multiply and divide a multi-digit number by a two-digit number, including decimals.                                       | SE/TE: 18–20, 70–72, 74–75, 76–77, 78–79   |  |  |
| b.   | Add, subtract, multiply, and divide fractions and mixed numbers.  | SE/TE: 162–163, 166–168, 170–171, 172–173, 174–176, 186–187, 188–190, 190–191, 192–193, 202–203, 204–205, 206–207, 208–209, 210–211, 212–213 |  |  |
| c.   | Add and subtract integers.  | SE/TE: 230–232, 234–236  |  |  |

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| <b>STANDARD II: Students will use patterns, relations, and algebraic expressions to represent and analyze mathematical problems and number relationships.</b>          |   |   |   |
| <b>Percentage of coverage in the <i>student and teacher edition</i> for Standard I: 100%</b>   |   | <b>Percentage of coverage not in student or teacher edition, but covered in the <i>ancillary material</i> for Standard II: _____%</b> |   |
| <b>OBJECTIVES &amp; INDICATORS</b>   |   | <b>Coverage in <i>Student Edition (SE)</i> and <i>Teacher Edition (TE)</i> (pg #'s, etc.)</b>   | <b>Coverage in <i>Ancillary Material</i> (titles, pg #'s, etc.)</b> |
| <b>Objective 2.1: Analyze algebraic expressions, tables, and graphs to determine patterns, relations, and rules.</b>   |   |   | <i>Not covered in TE, SE or ancillaries</i> ✓                       |
| <b>a.</b>  | Describe simple relationships by creating and analyzing tables, equations, and expressions.   | <b>SE/TE:</b> 32–33, 46–47, 48–49, 50–51, 96–97, 101, 102–104, 110–112, 322–323, 376–377, 378–379, 386–388, 390–391, 461, 479         |   |
| <b>b.</b>  | Draw a graph and write an equation from a table of values.  | <b>SE/TE:</b> 376–377, 386–388  |   |
| <b>c.</b>  | Draw a graph and create a table of values from an equation.   | <b>SE/TE:</b> 323, 378–379, 380–381, 382–384  |   |
| <b>Objective 2.2: Write, interpret, and use mathematical expressions, equations, and formulas to represent and solve problems that correspond to given situations.</b> |   |   |   |
| <b>a.</b>  | Solve single variable linear equations using a variety of strategies.   | <b>SE/TE:</b> 98–100, 102–105, 106–108, 110–112, 212–213, 242–244, 326–327, 330–332, 334–336, 357, 372–374                            |   |
| <b>b.</b>  | Recognize that expressions in different forms can be equivalent and rewrite an expression to represent a quantity in a different way. | <b>SE/TE:</b> 32–33, 34–35, 48–49, 50–51  |   |

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| c.  | Evaluate and simplify expressions and formulas, substituting given values for the variables (e.g., $2x + 4$ ; $x = 2$ ; therefore, $2(2) + 4 = 8$ ).  | <b>SE/TE:</b> 46–47, 245, 310–313, 358–360, 426–429, 430–433, 434–437, 438–439, 442–443, 458–460, 462–463, 464–465                    |   |  |
| <b>STANDARD III: Students will use spatial and logical reasoning to recognize, describe, and analyze geometric shapes and principles.</b> |   |   |   |  |
| <b>Percentage of coverage in the <i>student and teacher edition</i> for Standard I: 100%</b>  |   | <b>Percentage of coverage not in student or teacher edition, but covered in the <i>ancillary material</i> for Standard II: _____%</b> |   |  |
| <b>OBJECTIVES &amp; INDICATORS</b>  |   | <b>Coverage in <i>Student Edition (SE)</i> and <i>Teacher Edition (TE)</i> (pg #'s, etc.)</b>   | <b>Coverage in <i>Ancillary Material</i> (titles, pg #'s, etc.)</b> | <b><i>Not covered in TE, SE or ancillaries</i> ✓</b> |
| <b>Objective 3.1: Identify and analyze attributes and properties of geometric shapes to solve problems.</b>                               |   |   |   |  |
| a.  | Identify the midpoint of a line segment and the center and circumference of a circle.   | <b>SE/TE:</b> 263–265, 282–283, 438–440   |   |  |
| b.  | Identify angles as vertical, adjacent, complementary, or supplementary and provide descriptions of these terms.   | <b>SE/TE:</b> 270B, 270–273, 273B, 283  |   |  |
| c.  | Develop and use the properties of complementary and supplementary angles and the sum of the angles of a triangle to solve problems involving an unknown angle in a triangle or quadrilateral. | <b>SE/TE:</b> 274–276, 278–281, 281B  |   |  |
| <b>Objective 3.2: Visualize and identify geometric shapes after applying transformations on a coordinate plane.</b>                       |   |   |   |  |
| a.  | Rotate a polygon about the origin by a multiple of $90^\circ$ and identify the location of the new vertices.  | <b>SE/TE:</b> 284B, 284–285   |   |  |

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| <b>b.</b>  | Translate a polygon either horizontally or vertically on a coordinate grid and identify the location of the new vertices.   | <b>SE/TE:</b> 284B, 284–286, 287B   |   |  |
| <b>c.</b>  | Reflect a polygon across either the x- or y-axis and identify the location of the new vertices.   | <b>SE/TE:</b> 284B, 284–286, 287B   |   |  |
| <b>STANDARD IV: Students will understand and apply measurement tools and techniques and find the circumference and area of a circle.</b> |   |   |   |  |
| <b>Percentage of coverage in the <i>student and teacher edition</i> for Standard I: 100%</b>   |   | <b>Percentage of coverage not in student or teacher edition, but covered in the <i>ancillary material</i> for Standard IV: _____%</b> |   |  |
| <b>OBJECTIVES &amp; INDICATORS</b>   |   | <b>Coverage in <i>Student Edition (SE)</i> and <i>Teacher Edition (TE)</i> (pg #'s, etc.)</b>   | <b>Coverage in <i>Ancillary Material</i> (titles, pg #'s, etc.)</b> | <b><i>Not covered in TE, SE or ancillaries</i> ✓</b> |
| <b>Objective 4.1: Describe and find the circumference and area of a circle.</b>  |   |   |   |  |
| <b>a.</b>  | Explore the relationship between the radius and diameter of a circle to the circle's circumference to develop the formula for circumference.                        | <b>SE/TE:</b> 438B, 438–439   |   |  |
| <b>b.</b>  | Find the circumference of a circle using a formula.   | <b>SE/TE:</b> 438B, 438–441   |   |  |
| <b>c.</b>  | Describe pi as the ratio of the circumference to the diameter of a circle.  | <b>SE/TE:</b> 438B, 439   |   |  |
| <b>d.</b>  | Decompose a circle into a number of wedges and rearrange the wedges into a shape that approximates a parallelogram to develop the formula for the area of a circle. | <b>SE/TE:</b> 442B, 442–443   |   |  |
| <b>e.</b>  | Find the area of a circle using a formula.  | <b>SE/TE:</b> 442B, 442–443   |   |  |

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| <b>Objective 4.2: Identify and describe measurable attributes of objects and units of measurement, and solve problems involving measurement.</b> |   |  |   |
| <b>a.</b>  | Recognize that measurements are approximations and describe how the size of the unit used in measuring affects the precision. | <b>SE/TE:</b> 408B, 408–410, 411B  |   |
| <b>b.</b>  | Convert units of measurement within the metric system and convert units of measurement within the customary system.           | <b>SE/TE:</b> 400–402, 403B, 404B, 404–406, 407B   |   |
| <b>c.</b>  | Compare a meter to a yard, a liter to a quart, and a kilometer to a mile.   | <b>SE/TE:</b> 412B, 412–413, 413B  |   |
| <b>d.</b>  | Determine when it is appropriate to estimate or use precise measurement when solving problems.                                | <b>SE/TE:</b> 408B, 411  |   |
| <b>e.</b>  | Derive and use the formula to determine the surface area and volume of a cylinder.  | <b>SE/TE:</b> 458–460, 464B, 464–465   |   |
| <b>STANDARD V: Students will analyze, draw conclusions, and make predictions based upon data and apply basic concepts of probability.</b>        |   |  |   |
| <b>Percentage of coverage in the <i>student and teacher edition</i> for Standard I: 100%</b>   |   | <b>Percentage of coverage not in student or teacher edition, but covered in the <i>ancillary material</i> for Standard V: _____%</b> |   |
| <b>OBJECTIVES &amp; INDICATORS</b>   |   | <i>Coverage in Student Edition (SE) and Teacher Edition (TE) (pg #'s, etc.)</i>  | <i>Coverage in Ancillary Material (titles, pg #'s, etc.)</i><br><i>Not covered in TE, SE or ancillaries ✓</i> |

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| <b>Objective 5.1: Design investigations to reach conclusions using statistical methods to make inferences based on data.</b> |   |  |  |
| <b>a.</b>  | Design investigations to answer questions.  | <b>SE/TE:</b> This objective can be developed on these pages: 502–504, 506–507                     |  |
| <b>b.</b>  | Extend data display and comparisons to include scatter plots and circle graphs.   | <b>SE/TE:</b> 480B, 480–483, 483B, 488B, 488–489   |  |
| <b>c.</b>  | Compare two similar sets of data on the same graph and compare two graphs representing the same set of data.  | <b>SE/TE:</b> 476–478, 484–485, 487  |  |
| <b>d.</b>  | Recognize that changing the scale influences the appearance of a display of data.   | <b>SE/TE:</b> 484B, 484–486  |  |
| <b>e.</b>  | Propose and justify inferences and predictions based on data.   | <b>SE/TE:</b> 476–478, 480–483, 487, 488–489, 490–492, 494–496, 498–499, 500–501, 502–504, 506–507 |  |
| <b>Objective 5.2: Apply basic concepts of probability and justify outcomes.</b>  |   |  |  |
| <b>a.</b>  | Write the results of a probability experiment as a fraction between zero and one, or an equivalent percent.   | <b>SE/TE:</b> 528B, 528–529  |  |
| <b>b.</b>  | Compare experimental results with theoretical results (e.g., experimental: 7 out of 10 tails; whereas, theoretical 5 out of 10 tails).              | <b>SE/TE:</b> 530–533, 533B  |  |
| <b>c.</b>  | Compare individual, small group, and large group results of a probability experiment in order to more accurately estimate the actual probabilities. | <b>SE/TE:</b> 533, 533B  |  |