# **Correlation to the 2016 Mathematics Standards of Learning and Curriculum Framework – Grade 7**

**Text/Instructional Material Title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Publisher: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Committee Member: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_**

**NOTE: The rating cells in the tables below are empty in order for division-level review teams to utilize this form.**

## **Section I. Correlation with the Mathematics 2016 SOL and Curriculum Framework**

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| **Mathematics Standard of Learning** | **Adequate****Rating** | **Limited****Rating** | **No Evidence Rating** |
| **7.1** |  |  |  |
| **7.2** |  |  |  |
| **7.3** |  |  |  |
| **7.4** |  |  |  |
| **7.5** |  |  |  |
| **7.6** |  |  |  |
| **7.7** |  |  |  |
| **7.8** |  |  |  |
| **7.9** |  |  |  |
| **7.10** |  |  |  |
| **7.11** |  |  |  |
| **7.12** |  |  |  |
| **7.13** |  |  |  |

## **Section II. Additional Criteria: Instructional Planning and Support**

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| **Criteria** | **Adequate****Rating** | **Limited****Rating** | **No Evidence Rating** |
| **1.** Materials emphasize the use of effective instructional practices and learning theory. |  |  |  |
| * 1. Students are guided through critical thinking and problem-solving approaches.
 |  |  |  |
| * 1. Concepts are introduced through concrete experiences that use manipulatives and other technologies.
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| * 1. Multiple opportunities are provided for students to develop and apply concepts through the use of calculators, hand held devices, computers, and other technologies.
 |  |  |  |
| * 1. Students use the language of mathematics including specialized vocabulary and symbols.
 |  |  |  |
| * 1. Students use a variety of representations (graphical, numerical, symbolic, verbal, and physical) to connect mathematical concepts.
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| 1. The mathematics content is significant and accurate.
 |  |  |  |
| * 1. Materials are presented in an organized, logical manner which represents the current thinking on how students learn mathematics.
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| * 1. Materials are organized appropriately within and among units of study.
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| * 1. Format design includes titles, subheadings, and appropriate cross-referencing for ease of use.
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| * 1. Writing style, length of sentences, vocabulary, graphics, and illustrations are appropriate.
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| * 1. Level of abstraction is appropriate, and practical examples, including careers, are provided.
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| * 1. Sufficient applications are provided to promote depth of application.
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| 1. Materials present content in an accurate, unbiased manner.
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| **Mathematics Standard of Learning** | **Adequate****Rating** | **Limited****Rating** | **No Evidence Rating** |
| 7.1 The student will |  |  |  |
| * 1. investigate and describe the concept of negative exponents for powers of ten;
 |  |  |  |
| * 1. compare and order numbers greater than zero written in scientific notation;
 |  |  |  |
| * 1. compare and order rational numbers;
 |  |  |  |
| * 1. determine square roots of perfect squares; and
 |  |  |  |
| * 1. identify and describe absolute value of rational numbers.
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| **Mathematics Standard of Learning** | **Adequate****Rating** | **Limited****Rating** | **No Evidence Rating** |
| 7.2 The student will solve practical problems involving operations with rational numbers. |  |  |  |

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| **Mathematics Standard of Learning** | **Adequate****Rating** | **Limited****Rating** | **No Evidence Rating** |
| 7.3 The student will solve single-step and multistep practical problems, using  proportional reasoning. |  |  |  |

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| **Mathematics Standard of Learning** | **Adequate****Rating** | **Limited****Rating** | **No Evidence Rating** |
|  7.4 The student will  |  |  |  |
| 1. describe and determine the volume and surface area of rectangular prisms and cylinders; and
 |  |  |  |
| 1. solve problems, including practical problems, involving the volume and surface area of rectangular prisms and cylinders.
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| **Mathematics Standard of Learning** | **Adequate****Rating** | **Limited****Rating** | **No Evidence Rating** |
| 7.5 The student will solve problems, including practical problems, involving the relationship between corresponding sides and corresponding angles of similar quadrilaterals and triangles. |  |  |  |

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| **Mathematics Standard of Learning** | **Adequate****Rating** | **Limited****Rating** | **No Evidence Rating** |
| 7.6 The student will  |  |  |  |
| 1. compare and contrast quadrilaterals based on their properties; and
 |  |  |  |
|  b) determine unknown side lengths or angle measures of quadrilaterals. |  |  |  |

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| **Mathematics Standard of Learning** | **Adequate****Rating** | **Limited****Rating** | **No Evidence Rating** |
| 7.7 The student will apply translations and reflections of right triangles or rectangles in the coordinate plane. |  |  |  |

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| **Mathematics Standard of Learning** | **Adequate****Rating** | **Limited****Rating** | **No Evidence Rating** |
| 7.8 The student will  |  |  |  |
| 1. determine the theoretical and experimental probabilities of an event; and
 |  |  |  |
| 1. investigate and describe the difference between the experimental probability and theoretical probability of an event.
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| **Mathematics Standard of Learning** | **Adequate****Rating** | **Limited****Rating** | **No Evidence Rating** |
| 7.9 The student, given data in a practical situation, will |   |  |  |
| a) represent data in a histogram;  |  |  |  |
| b) make observations and inferences about data represented in a histogram; and |  |  |  |
| 1. compare histograms with the same data represented in stem-and-leaf plots, line plots, and circle graphs.
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| **Mathematics Standard of Learning** | **Adequate****Rating** | **Limited****Rating** | **No Evidence Rating** |
| 7.10 The student will  |  |  |  |
| 1. determine the slope, *m*, as rate of change in a proportional relationship between two quantities and write an equation in the form *y* = *mx* to represent the relationship;
 |  |  |  |
| 1. graph a line representing a proportional relationship between two quantities given the slope and an ordered pair, or given the equation in *y* = *mx­* form where *m* represents the slope as rate of change;
 |  |  |  |
| 1. determine the *y*-intercept, *b*, in an additive relationship between two quantities and write an equation in the form *y* = *x* + *b* to represent the relationship;
 |  |  |  |
| 1. graph a line representing an additive relationship between two quantities given the *y*-intercept and an ordered pair, or given the equation in the form *y* = *x* + *b*, where *b* represents the *y*-intercept; and
 |  |  |  |
| 1. make connections between and among representations of a proportional or additive relationship between two quantities using verbal descriptions, tables, equations, and graphs.
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| **Mathematics Standard of Learning** | **Adequate****Rating** | **Limited****Rating** | **No Evidence Rating** |
| 7.11 The student will evaluate algebraic expressions for given replacement values of the variables. |  |  |  |

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| **Mathematics Standard of Learning** | **Adequate****Rating** | **Limited****Rating** | **No Evidence Rating** |
| 7.12 The student will solve two-step linear equations in one variable, including practical problems that require the solution of a two-steplinear equation in one variable. |  |  |  |

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| **Mathematics Standard of Learning** | **Adequate****Rating** | **Limited****Rating** | **No Evidence Rating** |
| 7.13 The student will solve one- and two-step linear inequalities in one  variable, including practical problems, involving addition, subtraction,  multiplication, and division, and graph the solution on a number line. |  |  |  |

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