Note: The focus maps are not required nor are they intended to serve as pacing guides, but rather to support discussion and collaboration amongst educators. The goal in discussing these maps is to build collective efficacy and ownership in the instructional process as resources are developed that support and align instruction.

## Note: To be used in conjunction with Wiring Diagram

| Key:                             |  |   |   |   |  |
|----------------------------------|--|---|---|---|--|
| Depth of Opportunity             |  |   |   |   |  |
| MAJOR CLUSTERS<br>70%            |  |   |   |   |  |
| SUPPORTING CLUSTERS              |  |   |   |   |  |
| 15-20%                           |  |   |   |   |  |
| ADDITIONAL CLUSTERS              |  |   |   |   |  |
| 10-15%                           |  |   |   |   |  |
| Content Area                     | Cluster  | 1st 9 WEEKS  Proportional Reasoning,  Probability, and  Rational Numbers                    | 2nd 9 WEEKS  Proportional Reasoning and  Algebra  | 3rd 9 WEEKS  Algebra and Geometry   | 4th 9 WEEKS Functions, Statistics, and Probability   |
|                                  | Analyze proportional relationships and use them to solve real-world and mathematical problems. | [7A.29], [7A.30], [7A.31], [7A.32], [7A.33]   | [7A.1] apply with expressions and equations [7A.12], [7A.13], [7A.17], [7A.18], [7A.19] [7A.2] apply with expressions and equations [7A.12], [7A.13], [7A.17], [7A.18], [7A.19] [7A.3] apply with expressions and equations [7A.12], [7A.13], [7A.17], [7A.18], [7A.19] *** Removed - Percent error not listed in examples.   | [7.A2] apply with expressions and equations [7A.12], [7A.13], [7A.17], [7A.18], [7A.19], [7A.20], [7A.21] [7A.3] apply with expressions and equations [7A.12], [7A.13], [7A.17], [7A.18], [7A.19], [7A.20], [7A.21] *** Removed - Percent error not listed in examples. | [7A.2] apply with functions and probability [7A.22], [7A.23], [7A.24], [7A.25], [7A.29], [7A.30], [7A.31], [7A.32] [7A.3] apply with functions and probability [7A.22], [7A.23], [7A.24], [7A.25], [7A.29], [7A.30], [7A.31], [7A.32] *** Removed - Percent error not listed in examples.  |
| Proportional Reasoning 7A.1-7A.7 | Analyze the relationship between proportional and non-proportional situations.                 | [7A.2], [7A.3] *** Added - Interpret unit rate as the constant of proportionality and slope | Formerly 8th Grade Cluster [7A.4] apply with proportional reasoning [7A.1], [7A.2], [7A.3] [7A.5] apply with proportional reasoning [7A.1], [7A.2], [7A.3]  *** Added - Interpret unit rate as the constant of proportionality and slope [7A.6] apply with proportional reasoning [7A.1], [7A.2], [7A.3] [7A.7] apply with proportional reasoning [7A.1], [7A.2], [7A.3]  *** Added - Compare proportional and non-proportional relationships | [7A.5] apply with proportional reasoning [7A.2], [7A.3] *** Added - Interpret unit rate as the constant of proportionality and slope [7A.6] apply with proportional reasoning [7A.2], [7A.3]  | Formerly 8th Grade Cluster [7A.4] apply with proportional reasoning [7A.2], [7A.3] [7A.5] apply with proportional reasoning [7A.2], [7A.3] *** Added - Interpret unit rate as the constant of proportionality and slope [7A.6] apply with proportional reasoning [7A.2], [7A.3] [7A.7] apply with proportional reasoning [7A.2], [7A.3] *** Added - Compare proportional and non- proportional relationships |

| Number Systems and<br>Operations<br>7A.8-7A.11 | Apply and extend prior knowledge of addition, subtraction, multiplication, and division to operations with rational numbers. | [7A.8]  ***Added - Extend strategies of multiplication to rational numbers to develop rules for multiplying signed numbers. Also, explain that division by zero is undefined.  [7A.9]  Formerly 8th Grade Cluster                        | [7A.17], [7A.18], [7A.19]  ***Added - Extend strategies of multiplication to rational numbers to develop rules for multiplying signed numbers. Also, explain that division by zero is undefined.  [7A.9] Real-Worl Context | [7A.8] apply with expressions and equations [7A.12], [7A.13], [7A.17], [7A.18], [7A.19], [7A.20], [7A.21 ***Added - Extend strategies of multiplication to rational numbers to develop rules for multiplying signed numbers. Also, explain that division by zero is undefined. [7A.9] apply with expressions and equations [7A.12], [7A.13], [7A.17], [7A.18], [7A.19], [7A.20], [7A.21   |  |
|--|--|--|--|---|--|
|  | Understand that the real number system is composed of rational and irrational numbers  | [7A.11] apply with radicals below [7A.15]  |  | [7A.11] apply with radicals below [7A.15]   |  |
|  | Create equivalent expressions using the properties of operations.  |  | [7A.38]  | [7A.40], [7A.41]  | [7.12] apply with functions [7A.22], [7A.23], [7A.24], [7A.25] [7.13] apply with functions [7A.22], [7A.23], [7A.24], [7A.25] *** Added - Explain how properties are related |
|  | Apply concepts of rational and integer exponents   | Formerly 8th Grade Cluster [7A.14]  *** Added - Develop properties of integer exponents [7A.15] apply with 2D and 3D figures [7A.36], [7A39], [7A.40], [7A.41]  *** Added - Number magnitude restriction for square roots and cube roots |  | [7A.14]  *** Added - Develop properties of integer exponents  | Formerly 8th Grade Cluster [7A.14] *** Added - Develop properties of integer exponents [7A.16]   |
| Algebra and Functions<br>7A.12-7A.25           | Solve real-world and mathematical problems using numerical and algebraic expressions, equations, and inequalities.           |  | [7A.37], [7A.38] [7A.18] apply with integers and angles [7A.8], [7A.37], [7A.38] Part Algebra 1 Standard [7A.19] apply with integers and angles [7A.8], [7A.37], [7A.38] Formerly Algebra 1 Standard                       | [7A.17] apply with 2D and 3D figures [7A.36], [7A39], [7A.40], [7A.41] [7A.18] apply with 2D and 3D figures [7A.36], [7A39], [7A.40], [7A.41] Part Algebra 1 Standard [7A.19] apply with 2D and 3D figures [7A.36], [7A39], [7A.40], [7A.41] Formerly Algebra 1 Standard [7A.20] apply with 2D and 3D figures [7A.36], [7A39], [7A.40], [7A.41] Formerly Algebra 1 Standard [7A.21] apply with 2D and 3D figures [7A.36], [7A.39], [7A.40], [7A.41] Formerly 8th Grade Standard |  |

|   | Explain, evaluate, and compare functions.  Make inferences about a population           |  |                    | Formerly 8th Grade Cluster [7A.22] Functions and Graphs Formerly Agebra 1 Standard [7A.23] Construct Function Formerly 8th grade Standard [7A.24] Intersection Formerly Algebra 1 Standard [7A.25] Approximate Solutions Formerly Algebra 1 Standard [7A.26] [7A.27] Additional Cluster |
|---|---|--|--------------------|---|
| Data Analysis, Statistics,<br>and Probabiltiy | using random sampling.  Make inferences from an informal comparison of two populations. |  |                    | *** Added - Informally explain situations in which statistical bias may exist.  [7A.28]  *** Added - Mean Absolute Deviation is now introduced in 7th grade.  |
| 7A.26-7A.32                                   | Investigate probability models.   | [7A.32] apply with proportional reasoning [7A.1], [7A.2], [7A.3] |                    | [7A.29] apply with proportional reasoning [7A.2], [7A.3] [7.30] apply with proportional reasoning [7A.2], [7A.3] [7.31] apply with proportional reasoning [7A.2], [7A.3] [7.32] apply with proportional reasoning [7A.2], [7A.3]  |
|   | Construct and describe geometric figures, analyzing relationships among them.           | [7A.33] apply with proportional reasoning [7A.1], [7A.2], [7A.3] | [7A.34]<br>[7A.35] |   |

| Geometry and<br>Measurement<br>7A.33-7A.44 | Solve real-world and mathematical problems involving angle measure, circumference, area, surface area, and volume. | [7A.12], [7A.13], [7A.17], [7A.18], [7A.19]<br>[7A.38]<br>Formeraly 8th Grade Standard | [7A.36] apply with expressions and equations [7A.12], [7A.13], [7A.17], [7A.18], [7A.19], [7A.20], [7A.21]  ***Added- Explain the relationships among circumference, diameter, area, and radius of a circle. [7A.39] apply with expressions and equations [7A.12], [7A.13], [7A.17], [7A.18], [7A.19], [7A.20], [7A.21] [7A.40] apply with expressions and equations [7A.12], [7A.13], [7A.17], [7A.18], [7A.19], [7A.20], [7A.21]  Formerly 8th Grade Standard [7A.41] apply with expressions and equations [7A.12], [7A.13], [7A.17], [7A.18], [7A.19], [7A.20], [7A.21] |   |
|--|--|--|--|---|
| Alabama Course of Study [Standa            | Understand congruence and similarity using physical models or technology   |  | [7A.43] Transformations and Coordinate Plane<br>Formerly 8th Grade Standard<br>[7A.44] Similarity  | [7.42] Congruence Formerly 8th Grade Standard [7.43] Transformations and Coordinate Plane Formerly 8th Grade Standard [7.44] Similarity Formerly 8th Grade Standard |