PDE - Common Core Mathematics Standards - Cluster Heading Matrix
Trifold - Grades 2-3-4

| Domain | Grade 2 | Grade 3 | Grade 4 |
| :---: | :---: | :---: | :---: |
| Counting and Cardinality |  |  |  |
| Operations and Algebraic Thinking | - Represent and solve problems involving addition and subtraction. <br> - Add and subtract within 20. <br> - Work with equal groups of objects to gain foundations for multiplication. | - Represent and solve problems involving multiplication and division. <br> - Understand properties of multiplication and the relationship between multiplication and division. <br> - Multiply and divide within 100. <br> - Solve problems involving the four operations, and identify and explain patterns in arithmetic. | - Use the four operations with whole numbers to solve problems. <br> - Gain familiarity with factors and multiples. <br> - Generate and analyze patterns. |
| Number and Operations in Base Ten | - Understand place value. <br> - Use place value understanding and properties of operations to add and subtract. | - Use place value understanding and properties of operations to perform multidigit arithmetic. | - Generalize place value understanding for multi-digit whole numbers. <br> - Use place value understanding and properties of operations to perform multidigit arithmetic. |
| Number and OperationsFractions |  | - Develop understanding of fractions as numbers. | - Extend understanding of fraction equivalence and ordering. <br> - Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. <br> - Understand decimal notation for fractions, and compare decimal fractions. |
| Measurement and Data | - Measure and estimate lengths in standard units. <br> - Relate addition and subtraction to length. <br> - Work with time and money. <br> - Represent and interpret data. | - Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects. <br> - Represent and interpret data. <br> - Geometric measurement: understand concepts of area and relate area to multiplication and to addition. <br> - Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures. | - Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit. <br> - Represent and interpret data. <br> - Geometric measurement: understand concepts of angle and measure angles. |
| Ratios and Proportional Relationships |  |  |  |
| The Number System |  |  |  |
| Expressions and Equations |  |  |  |
| Functions |  |  |  |

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| Geometry | $\bullet$ Reason with shapes and their attributes. | $\bullet$ | Reason with shapes and their attributes. | $\bullet$ <br> Draw and identify lines and angles, and <br> classify shapes by properties of their lines <br> and angles. <br> Statistics and Probability |
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