

**Octorara Area School District  
Standards Based Report Card Rubrics  
2018-2019  
4th GRADE MATH**

Standards-based grading aligns grading with the PA Core Standards. The report card accurately communicates achievement of learning targets to students, parents, and educators. Our report card provides specific information about the level of proficiency on the learning targets that are taught each trimester.

By the end of the year, students are expected to meet each grade-level standard (M). Students not meeting standards will receive instructional supports to achieve mastery for specific content and skills.

The purpose of these rubrics is to assist students, parents, and teachers in understanding what the specific learning expectations are for students to be considered at grade-level mastery in each skill area. These learning expectations may grow or increase as the school year progresses and more content/skills are introduced.

| SBRC Descriptor          | M   | SP  | LP   | NA                        |
|--------------------------|---|---|--|---------------------------|
| Means:                   | Consistently meets grade level expectations/standards   | Demonstrates steady progress toward meeting grade level expectations/standards  | Demonstrates limited progress toward meeting grade level expectations/standards                                    | Not assessed at this time |
| <b>Math Fact Fluency</b> |   |   |  |                           |
| Addition Facts           | Independently and consistently calculates basic addition facts efficiently, accurately and flexibly | Inconsistently calculates basic addition facts efficiently, accurately and flexibly. May be independent with some facts, but not all. | Dependent upon concrete strategies or tools such as number lines, drawings, or objects to calculate addition facts | Not assessed at this time |
| Subtraction Facts        | Independently and   | Inconsistently calculates   | Dependent upon concrete  | Not assessed at this      |

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|  | consistently calculates basic subtraction facts efficiently, accurately and flexibly  | basic subtraction facts efficiently, accurately and flexibly. May be independent with some facts, but not all.  | strategies or tools such as number lines, drawings, or objects to calculate subtraction facts   | time                       |
| Multiplication Facts   | Independently and consistently calculates basic multiplication facts efficiently, accurately and flexibly   | Inconsistently calculates basic multiplication facts efficiently, accurately and flexibly. May be independent with some facts, but not all.   | Dependent upon concrete strategies or tools such as number lines, drawings, or objects to calculate multiplication facts                                    | Not assessed at this time. |
| Division Facts   | Independently and consistently calculates basic division facts efficiently, accurately and flexibly   | Inconsistently calculates basic division facts efficiently, accurately and flexibly. May be independent with some facts, but not all.   | Dependent upon concrete strategies or tools such as number lines, drawings, or objects to calculate division facts  | Not assessed at this time. |
| <b>Numbers and Operations - Base Ten</b>   |   |   |   |                            |
| Applies place value concepts to show an understanding of multi-digit whole numbers | Independently and consistently compares, orders and rounds whole numbers to 6 digits and mixed numbers, fractions with like denominators and decimals to the hundredths<br><br>Consistently compare | Consistently estimates, adds and subtracts one digit, two and three digit whole numbers only.<br><br>Multiplies two digit numbers by one digit numbers.<br><br>Divides by one digit divisors with and without remainders. | Limited ability to estimate, add, and subtract whole numbers.<br><br>Multiplies one digit numbers.<br><br>Divides by one digit divisors without remainders. | Not assessed at this time. |

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| Uses place value understanding and properties of operations to perform multi-digit arithmetic                         | Independently and consistently estimates, adds, and subtracts one, two, and three digit whole numbers, decimals to hundredths and fractions with like denominators.<br><br>Multiplies two digit numbers.<br><br>Divides three digit numbers by one digit divisors with and without remainders. | Consistently estimates, adds, and subtracts one, two and three digit whole numbers only.<br><br>Multiplies two digit numbers by one digit numbers.<br><br>Divides by one digit divisors with and without remainders. | Limited ability to estimate, add and subtract whole numbers.<br><br>Multiplies one digit numbers.<br><br>Divides by one digit divisors without remainders. | Not assessed at this time  |
| <b>Numbers and Operations-Fractions</b>   |  |  |  |                            |
| Demonstrates understanding of fraction equivalence and ordering   | Orders and compares fractions with like/unlike numerators and denominators.  | Orders and compares fractions with like denominators.  | Inability to order and compare fractions.  | Not assessed at this time. |
| Builds fractions from unit fractions by applying and extending previous understandings of operations on whole numbers | Independently and consistently estimates, adds, and subtracts mixed numbers/fractions and multiplies fractions.  | Consistently estimates, adds, and subtracts fractions.   | Limited ability to estimate, add, and subtract fractions.  | Not assessed at this time  |
| Connects decimal notation to fractions and compares fractions (base   | Independently and consistently expresses a fraction with   | Consistently expresses a fraction with denominator 10 or 100 as a decimal.   | Inability to express a fraction with denominator 10 or 100 as a decimal.   | Not assessed at this time  |

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| 10 as denominator)   | denominators of 10 or 100 as a decimal.<br><br>Consistently compares two decimals.    | Inconsistently compares two decimals.  |  |                            |
| <b>Operations and Algebraic Thinking</b>                                     |   |  |  |                            |
| Represents and solves problems using the four operations                     | Independently and consistently solves problems with all four operations.              | Consistently solves problems with less than 4 operations.                            | Inability to solve problems.   | Not assessed at this time. |
| Develops and/or applies number theory concepts to find factors and multiples | Independently and consistently identifies the factors of numbers and multiples to 100 | Identifies factors of numbers to 50 and multiples to 100                             | Limited ability to identify factors and multiples.                                   | Not assessed at this time. |
| Generates and analyzes patterns  | Extends and describes patterns, including numeric patterns.                           | Inconsistently extends and describes patterns  | Limited ability to extend and/or describe patterns                                   | Not assessed at this time  |
| <b>Geometry</b>  |   |  |  |                            |
| Draws lines and angles and identifies these in two-dimensional figures       | Identifies and draws points, lines, segments and rays                                 | Identifies points, lines, line segments and rays<br><br>Identifies right, acute, and | Limited understanding of the terms of geometry<br><br>Limited ability to plot points | Not assessed at this time. |

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|   | <p>Identifies and classifies right angles, obtuse, acute, and straight angles</p> <p>Identifies parallel and perpendicular lines</p> <p>Can consistently identify the coordinates of and plot a point in Quadrant 1, on the axes, or at the origin</p> | <p>obtuse angles</p> <p>Identifies parallel lines</p> <p>Identifies the coordinates of and plots a point in Quadrant 1</p>                       | <p>on the coordinate plane</p>   |                                   |
| <p>Classifies two-dimensional figures by properties of their lines and angles</p> | <p>Can identify, classify, and compare the characteristics of, 2-D shapes</p>  | <p>Identifies and classifies the characteristics of 2-D shapes</p>   | <p>Limited ability to classify shapes</p>  | <p>Not assessed at this time.</p> |
| <p>Recognizes symmetric shapes and draws lines of symmetry</p>                    | <p>Identifies and draws vertical, horizontal, and diagonal lines of symmetry</p> <p>Identifies when there are no lines of symmetry</p>   | <p>Identifies and draws vertical or horizontal lines of symmetry only.</p> <p>Has difficulty identifying when there are no lines of symmetry</p> | <p>Limited ability to identify and draw lines of symmetry</p>                    | <p>Not assessed at this time.</p> |
| <b>Measurement and Data</b>   |  |  |  |                                   |
| <p>Solves problems involving measurement and conversions from</p>                 | <p>Estimates and measures length, weight, temperature, perimeter,</p>  | <p>Estimates and measures at least 3 of the following: length, weight,</p>   | <p>Estimates and measures one of the following: length, weight, temperature,</p> | <p>Not assessed at this time.</p> |

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| larger to smaller units  | area, and volume, using customary and metric units and converts between units of measure  | temperature, perimeter, area, or volume   | perimeter, area, or volume.  |                            |
| Translate information from one type of data display to another                               | Independently and consistently translates information from one type of data display to another  | Explains the data from one type but unable to translate into another.<br><br>Inconsistently translates information from one type of data display to another | Limited ability to describe, interpret or answer questions based on data and translate to another. | Not assessed at this time. |
| Represents and interprets data involving fractions using information provided in a line plot | Ability to represent and interpret data involving fractions ( $\frac{1}{2}$ , $\frac{1}{4}$ , $\frac{1}{8}$ ) using information in a line plot. | .Ability to represent and interpret data involving fractions ( $\frac{1}{2}$ , $\frac{1}{4}$ ) using information in a line plot.                            | Limited ability to represent and interpret data on a line plot.                                    | Not assessed at this time. |
| Measures angles and uses properties of adjacent angles to solve problems                     | Independently and consistently measures angles and solves problems using properties of adjacent angles  | Inconsistently measures angles.   | Inability to measure angles.   | Not assessed at this time  |

