## Grade 4 Report Card Rubrics

## Mathematics

Operations and Algebraic Thinking

| Uses the four operations with whole numbers to solve problems. (4.OA.1, 4.OA.2, 4.0.3) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Marking Period | 1 | 2 | 3 | 4 |
| 1 | Not yet able to use the four operations with whole numbers to solve problems using mental computation and estimating including rounding and problems in which remainders need to be interpreted. | Requires teacher assistance to use the four operations with whole numbers to solve problems using mental computation and estimating including rounding and problems in which remainders need to be interpreted. | Consistently and independently uses the four operations with whole numbers to solve problems using mental computation and estimating including rounding and problems in which remainders need to be interpreted. | Meets criteria of a <br> 3, explains reasoning, and is able to construct viable arguments to justify and communicate their reasoning. |
| 2 | Not yet able to: <br> *Use the four <br> operations with whole numbers to solve problems using mental computation and estimating including rounding and problems in which remainders need to be interpreted; *Solve problems in which symbols are used to represent the unknown number represented in the problem. | Requires teacher assistance to: <br> *Use the four operations with whole numbers to solve problems using mental computation and estimating including rounding and problems in which remainders need to be interpreted; *Solve problems in which symbols are used to represent the unknown number represented in the problem. | Consistently and independently: <br> *Uses the four operations with whole numbers to solve problems using mental computation and estimating including rounding and problems in which remainders need to be interpreted; *Solve problems in which symbols are used to represent the unknown number represented in the problem. | Meets criteria of a <br> 3, explains <br> reasoning, and is able to construct viable arguments to justify and communicate their reasoning. |


| Uses the four operations with whole numbers to solve problems. (4.OA.1, 4.OA.2, 4.0.3) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Marking Period | 1 | 2 | 3 | 4 |
| 3 | Not yet able to: <br> *Use the four operations with whole numbers to solve problems using mental computation and estimating including rounding and problems in which remainders need to be interpreted; <br> *Solve problems in which symbols are used to represent the unknown number represented in the problem; <br> *Solve multistep-word problems posed with whole numbers and having whole number answers using the four operations.; <br> *Represent equations with a letter standing for the unknown quantity in area and perimeter. | Requires teacher assistance to : <br> *Use the four operations with whole numbers to solve problems using mental computation and estimating including rounding and problems in which remainders need to be interpreted; *Solve problems in which symbols are used to represent the unknown number represented in the problem; <br> *Solve multistep-word problems posed with whole numbers and having whole number answers using the four operations.; <br> *Represent equations with a letter standing for the unknown quantity in area and perimeter. | Consistently and independently: <br> *Uses the four operations with whole numbers to solve problems using mental computation and estimating including rounding and problems in which remainders need to be interpreted; <br> *Solves problems in which symbols are used to represent the unknown number represented in the problem; <br> *Solves multistep-word problems posed with whole numbers and having whole number answers using the four operations.; <br> *Represents equations with a letter standing for the unknown quantity in area and perimeter. | Meets criteria of a 3, explains reasoning, and is able to construct viable arguments to justify and communicate their reasoning. |


| Gains familiarity with factors and multiples (4.OA.4) |  |  |  |  |  |
| :---: | :--- | :--- | :--- | :--- | :---: |
| Marking <br> Period | 2 | 4 |  |  |  |
| 1 | Not yet able to determine <br> factor pairs and multiples <br> for a whole number in the <br> range 1-100 and determine <br> whether a number is prime <br> or composite. | Requires teacher <br> assistance to determine <br> factor pairs and multiple <br> for a whole number in <br> the range 1-100 and <br> determine whether a <br> number is prime or <br> composite. | Consistently and <br> independently able to <br> determine factor pairs and <br> multiples for a whole <br> number in the range 1-100 <br> and determine whether a <br> number is prime or <br> composite. | Meets criteria of a <br> 3, and explains <br> patterns that exist <br> between multiples <br> and can describe <br> these patterns <br> using words and <br> equations with <br> unknowns. |  |
| 2 | Reassess as needed |  |  |  |  |
| 3 | Reassess as needed |  |  |  |  |


| Generate and analyze patterns (4.OA.5) |  |  |  |  |
| :---: | :--- | :--- | :--- | :--- |
| Marking <br> Period | 1 | 2 | 3 | 4 |
| 1 | Not yet able to generate <br> a number pattern that <br> follows a given rule. | Requires teacher <br> prompting and support <br> to generate a number <br> pattern that follows a <br> given rule. | Consistently and <br> independently able to <br> generate a number <br> pattern that follows a <br> given rule. | Meets criteria of a 3, <br> explains reasoning and <br> is able to construct <br> viable arguments to <br> justify and <br> communicate <br> reasoning. |
| 2 | Not yet able to generate <br> a number pattern <br> including decimals that <br> follow a given rule. | Requires teacher <br> prompting and support <br> to generate a number <br> pattern including <br> decimals that follow a <br> given rule. | Consistently and <br> independently able <br> to generate a <br> number pattern <br> including decimals <br> that follow a given <br> rule. | Meets criteria of a 3, <br> explains reasoning and <br> is able to construct <br> viable arguments to <br> justify and <br> communicate <br> reasoning. |
| 3 |  |  |  |  |

## Numbers and Operations in Base Ten

| Generalizes place value understanding for multi-digit whole numbers (4.NBT.1, 4.NBT.2, 4.NBT.3) |  |  |  |  |
| :---: | :--- | :--- | :--- | :--- |
| Marking <br> Period | 1 |  |  |  |
| 1 | Not yet able to use <br> place-value <br> understanding to <br> read, write, <br> compare, and <br> round multi-digit <br> whole numbers to <br> any place. | Requires teacher <br> assistance to use <br> place-value <br> understanding to <br> read, write, compare, <br> and round multi-digit <br> whole numbers to <br> any place. | Consistently and <br> independently able <br> to use place-value <br> understanding to <br> read, write, <br> compare, and <br> round multi-digit <br> whole numbers to <br> any place. | Consistently and <br> independently able to <br> use place-value <br> understanding to read, <br> write, compare, and <br> round multi-digit whole <br> numbers to any place. |
| 2 | Reassess as needed |  |  |  |
| 3 | Reassess as needed |  |  |  |


| Uses place value understanding and properties of operations to perform multi-digit arithmetic (4.NBT.4, 4.NBT.5, 4.NBT.6) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Marking Period | 1 | 2 | 3 | 4 |
| 1 | Not yet able to: <br> *Fluently add and subtract multi-digit whole numbers using the standard algorithm; <br> *Multiply a whole number up to 4 digits by a one-digit whole number, and multiply two 2-digit numbers, using strategies based on place value and the properties of operations; <br> *Illustrate and explain the calculations by using equations, rectangular arrays, and/or area models. | Requires teacher assistance to: <br> * Fluently add and subtract multi-digit whole numbers using the standard algorithm; <br> * Multiply a whole number up to 4 digits by a one-digit whole number, and multiply two 2-digit numbers, using strategies based on place value and the properties of operations; <br> * Illustrate and explain the calculations by using equations, rectangular arrays, and /or area models. | Consistently and independently able to: <br> * Fluently add and subtract multi-digit whole numbers using the standard algorithm; <br> * Multiply a whole number up to 4 digits by a one-digit whole number, and multiply two 2-digit numbers, using strategies based on place value and the properties of operations; <br> * Illustrate and explain the calculations by using equations, rectangular arrays, and/or area models. | Meets the criteria for a 3 and extends understanding to include a viable argument to explain answer. |
| 2 | Reassess as needed |  |  |  |
| 3 | Reassess as needed |  |  |  |

## Numbers and Operations - Fraction

| Extend understanding of fraction equivalence and ordering ( 4.NF.1, 4.NF.2) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Marking Period | 1 | 2 | 3 | 4 |
| 1 |  |  |  |  |
| 2 | Not yet able to: <br> *Express why two or more fractions are equivalent; <br> *Compare two fractions with different numerators and denominators using models and drawings; <br> *Express the comparison using equations with proper mathematical symbols. | Requires teacher assistance to: <br> *Express why two or more fractions are equivalent; <br> *Compare two fractions with different numerators and denominators using models and drawings; <br> *Express the comparison using equations with proper mathematical symbols. | Consistently and independently able to: <br> *Express why two or more fractions are equivalent; <br> *Compare two fractions with different numerators and denominators using models and drawings; <br> *Express the comparison using equations with proper mathematical symbols. | Meets all the criteria for a 3 and is able to construct a viable argument. |
| 3 | Reassess as needed |  |  |  |

Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers (4.NF.3, 4.NF.4)

| Marking Period | 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: | :---: |
| 1 |  |  |  |  |
| 2 | Not yet able to: <br> * Solve problems with adding and subtracting fractions and mixed numbers with like denominators using visual models and equations to represent the problem; <br> * Solve problems with multiplication of a fraction by a whole number using models and equations to represent the problem; *Solves word problems involving addition and subtraction of fractions. | Requires teacher assistance to: <br> * Solve problems with adding and subtracting fractions and mixed numbers with like denominators using visual models and equations to represent the problem; <br> * Solve problems with multiplication of a fraction by a whole number using models and equations to represent the problem; *Solves word problems involving addition and subtraction of fractions. | Consistently and independently able to: <br> * Solve problems with adding and subtracting fractions and mixed numbers with like denominators using visual models and equations to represent the problem; <br> * Solve problems with multiplication of a fraction by a whole number using models and equations to represent the problem; <br> *Solves word problems involving addition and subtraction of fractions. | Meets all the criteria for a 3 and constructs a viable argument. |
| 3 | Reassess as needed. |  |  |  |


| Understand decimal notation for fractions, and compare decimal fractions (4.NF.5. 4.NF.6, 4.NF.7) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Marking Period | 1 | 2 | 3 | 4 |
| 1 |  |  |  |  |
| 2 |  |  |  |  |
| 3 | Not yet able to: <br> *Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100; <br> *Use decimal notation for fractions with denominators 10 or 100; *Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole; <br> *Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model. | Requires teacher assistance to : <br> *Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100; <br> *Use decimal notation for fractions with denominators 10 or 100; *Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole; <br> * Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model. | Consistently and independently able to: <br> *Express a fraction with denominator 10 as an equivalent fraction with denominator 100, and use this technique to add two fractions with respective denominators 10 and 100; <br> *Use decimal notation for fractions with denominators 10 or 100; *Compare two decimals to hundredths by reasoning about their size. Recognize that comparisons are valid only when the two decimals refer to the same whole; <br> * Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual model. | Meets all the criteria for a 3 and constructs a viable argument. |

## Measurement and Data

Solves problems involving measurement and conversion of measurements from a larger unit to a smaller unit. (4.MD.1, 4.MD.2, 4.MD.3)

| Marking Period | 1 | 2 | 3 | 4 |
| :---: | :---: | :---: | :---: | :---: |
| 1 |  |  |  |  |
| 2 |  |  |  |  |
| 3 | Not yet able to: <br> *Measure attributes of objects in the customary and metric systems; <br> *Make measurement conversion within one system of measurement; <br> *Solve problems using the four operations involving measurable quantities (time, distance, and physical attributes of objects); *Solve problems using the formulas for area and perimeter. | Requires teacher assistance to: <br> *Measure attributes of objects in the customary and metric systems; *Make measurement conversion within one system of measurement; *Solve problems using the four operations involving measurable quantities (time, distance, and physical attributes of objects); *Solve problems using the formulas for area and perimeter. | Consistently and Independently able to: <br> *Measure attributes of objects in the customary and metric systems; <br> *Make measurement conversion within one system of measurement; *Solve problems using the four operations involving measurable quantities (time, distance, and physical attributes of objects); <br> *Solve problems using the formulas for area and perimeter. | Meets all the criteria for a 3 and is able to construct a viable argument. |


| Represent and interpret data (4.MD.4) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Marking Period | 1 | 2 | 3 | 4 |
| 1 |  |  |  |  |
| 2 | Not yet able to: *Make a line plot to display a data set of measurements in fractions of a unit ( $1 / 2,1 / 4$, 1/8); <br> *Solve problems involving addition and subtraction of fractions by using information presented in line plots. | Requires teacher assistance to: <br> *Make a line plot to display a data set of measurements in fractions of a unit ( $1 / 2,1 / 4$, 1/8); <br> *Solve problems involving addition and subtraction of fractions by using information presented in line plots. | Consistently and independently able to: <br> *Make a line plot to display a data set of measurements in fractions of a unit ( $1 / 2,1 / 4$, 1/8); <br> *Solve problems involving addition and subtraction of fractions by using information presented in line plots. | Meets all the criteria for a 3 and constructs a viable argument |
| 3 | Reassess as needed. |  |  |  |


| Geometric measurement: Understand concepts of angle and measure angles (4.MD.5, 4.MD.6, 4.MD.7) |  |  |  |  |
| :---: | :--- | :--- | :--- | :--- |
| Marking <br> Period | 1 | 2 | 4 |  |
| 1 |  | Not yet able to: <br> *Recognize angles as <br> geometric shapes that <br> are formed wherever <br> two rays share a <br> common endpoint, and <br> understand concepts of <br> angle measurement; <br> *Measure angles in <br> whole-number <br> degrees using a <br> protractor; <br> *Recognize angle <br> measure as additive, <br> using addition and <br> subtraction to find <br> unknown angles on a <br> diagram in <br> mathematical problems. | Requires teacher <br> assistance to: <br> *Recognize angles as <br> geometric shapes that <br> are formed wherever <br> two rays share a <br> common endpoint, and <br> understand concepts of <br> angle measurement; <br> *Measure angles in <br> whole-number degrees <br> using a protractor; <br> *Recognize angle <br> measure as additive, <br> using addition and <br> subtraction to find <br> unknown angles on a <br> diagram in <br> mathematical problems. | Consistently and <br> independently able to: <br> *Recognize angles as <br> geometric shapes that <br> are formed wherever <br> two rays share a <br> common endpoint, and <br> understand concepts of <br> angle measurement; <br> *Measure angles in <br> whole-number degrees <br> using a protractor; <br> *Recognize angle measure <br> as additive, using addition <br> and subtraction to find <br> unknown angles on a <br> diagram mathematical <br> problems. |

## Geometry

| Draw and identify lines and angles, and classify shapes by properties of their lines and angles (4.G.1, 4.G.2, 4.G.3,) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Marking Period | 1 | 2 | 3 | 4 |
| 1 |  |  |  |  |
| 2 | Not yet able to: <br> *Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines; *Identify these in two-dimensional figures. | Requires teacher assistance to: <br> *Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines; *Identify these in twodimensional figures. | Consistently and Independently able to: <br> *Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines; <br> *Identify these in twodimensional figures. | Meets all the criteria for a 3 and justifies these classifications using proper mathematical vocabulary. |
| 3 | Not yet able to: <br> * Classify twodimensional figures including squares and rectangles based on angles and sides. <br> *Recognize and draw lines of symmetry for twodimensional figures; <br> *Identify objects with line-symmetric figures. | Requires teacher assistance to: <br> * Classify twodimensional figures including squares and rectangles based on angles and sides. <br> *Recognize and draw lines of symmetry for two-dimensional figures; *Identify objects with line-symmetric figures. | Consistently and Independently able to: <br> *Classify twodimensional figures including squares and rectangles based on angles and sides. <br> *Recognize and draw lines of symmetry for two-dimensional figures; <br> *Identify objects with line-symmetric figures. | Meets all the criteria for a 3 and justifies these classifications using proper mathematical vocabulary. |

