

**Park Ridge Public Schools
Mathematics Report Card Rubric
Fifth Grade**

1) Understands and applies mathematical concepts

| Trimester | 1 | 2 | 3 | ES |
|-----------------|---|--|--|---|
| 1 st | Rarely or never meets the expectations for this trimester | Inconsistently meets the expectations for this trimester | <p>Consistently demonstrates an understanding of the following concepts:</p> <p><u>Unit 1: Number and Operations in Base Tens</u></p> <ul style="list-style-type: none"> • Using place value to compare and order whole numbers and decimals • Identifying elements that repeat in a predictable way • Rounding to find the multiple of 10, 100, etc. or of .1, .01. etc., closest to a given number • Estimating a sum or difference • Adding or subtracting multi-digit decimals and whole numbers • Finding and solving sub- problems in order to solve the original problem • CC7 Decimals to hundredths • Properties of multiplication • Basic facts and place value patterns • Estimating products • Standard Multiplication algorithm • Numerical expressions • Representing numbers using a base number and an exponent • Solving problems using a diagram • Solving problems by writing and completing a number sentence or equation • Using basic facts and face value patterns to divide multiples of 10 100 and so forth by 1 digit numbers • Estimating quotients • Checking answers to problems for reasonableness • Using the standard division algorithm with money • Different numerical expressions with the same value • Problem-solving with diagrams and number sentences • Dividing with 2-digit divisors • Estimating to determine the placement of digits in the quotient • Problems with missing or extra information | Independently and consistently exceeds standards for this trimester |

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| | | | <ul style="list-style-type: none"> • CC6-Quotients of whole numbers for up to 4-digit dividends and 2-digit divisors • CC6-Strategies for: place value, properties of operations and the relationships between multiplication and division • Patterns for multiplying with mental math • Multiplying whole numbers by decimals • Estimating products of whole numbers and decimals • Decimal by decimal multiplication • Patterns for dividing with mental math • Dividing decimals by whole numbers • Decimal by decimal division • CC7 Decimals to hundredths | |
| 2 nd | Rarely or never meets the expectations for this trimester | Inconsistently meets the expectations for this trimester | <p>Consistently demonstrates an understanding of the following concepts:</p> <p><u>Unit 2: Algebraic Thinking</u></p> <ul style="list-style-type: none"> • Mathematical phrases using a variable in an algebraic expression • The value of an algebraic expression • Numerical and algebraic expressions involving more than one operation • The distributive property of multiplication • Simplifying numerical expressions • Numerical patterns • Relationships between corresponding terms • Ordered pairs • Coordinate plane • Various ways to evaluate expressions • Relationships of mathematically quantities • Using patterns to identify relationships between quantities • Recording and organizing data in a table <p><u>Unit 3: Number and Operations - Fractions</u></p> <ul style="list-style-type: none"> • Fractions as part of a whole • Interpretations of fractions • Mixed numbers • Improper fractions • Simplest form • Decimals as fractions | Independently and consistently exceeds standards for this trimester |

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|-----------------|---|--|---|---|
| | | | <ul style="list-style-type: none"> • Mathematical explanations with words, pictures, numbers or symbols • Adding and subtracting fractions with like denominators • Common multiples of non-zero whole numbers • Adding fractions with unlike denominators • Subtracting fractions with unlike denominators • Adding mixed numbers • Subtracting mixed numbers • Problem solving using the strategies - try, check, and revise • Interpreting the product of a whole number and a fraction • Multiplying two fractions • Multiplying mixed numbers • Dividing mixed numbers • Area of a rectangle with fractional sides | |
| 3 rd | Rarely or never meets the expectations for this trimester | Inconsistently meets the expectations for this trimester | <p>Consistently demonstrates an understanding of the following concepts:</p> <p><u>Unit 4: Geometry</u></p> <ul style="list-style-type: none"> • Two-dimensional figures • Cartesian Coordinate System • Location of point in a plane • Distance between points on a number line • Relationships between corresponding terms • Perpendicular number lines (axis) to define a coordinate system with the intersection of the lines arranged to coincide with the zero on each line • Graphing points in the first quadrants of the plane <p><u>Unit 5: Measurement and Data</u></p> <ul style="list-style-type: none"> ▪ Measuring length in different systems: metric and customary ▪ Estimating length in different measurement systems ▪ Problem-solving using diagrams ▪ Organizing in a systematic way ▪ Shapes of solids ▪ Analyzing different views of a solid ▪ Volume ▪ Cubic units needed to fill a three-dimensional object ▪ Breaking apart and estimating shapes to find area and volume ▪ Breaking apart a problem into a simpler one | Independently and consistently exceeds standards for this trimester |

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| | | | <ul style="list-style-type: none"> ▪ Volume as an attribute of solid figures ▪ Concepts of volume measurement ▪ Unit cubes: cubic cm, cubic in, cubic ft. ▪ Multiplication and addition related to volume ▪ Volume of right rectangular prisms ▪ Formula: $V = L \times W \times H$ ▪ Formula: $V = B \times H$ ▪ Solve real-world problems related to volume ▪ Capacity ▪ Estimating and measuring capacity with different units ▪ Weight of objects ▪ Mass of objects ▪ Relationships between measurement units of length, capacity, and weight/mass ▪ Ratios of measurement units ▪ Different types of graphs: bar graph, double-bar graph, and picture graph ▪ Graphs to compare data ▪ Line plots ▪ Fraction operations in relation to line plots | |
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2) Recalls math facts with accuracy and automaticity

| Trimester | 1 | 2 | 3 | ES |
|-----------|---|--|--|---|
| All | Rarely or never meets the expectations for this trimester | Inconsistently meets the expectations for this trimester | Consistently demonstrates accurate application of grade-level math facts with automaticity | Independently and consistently exceeds standards for this trimester |

3) Applies problem-solving strategies to solve word problems accurately

| Trimester | 1 | 2 | 3 | ES |
|-----------|-----------|----------------|--|-------------------|
| All | Rarely or | Inconsistently | Consistently demonstrates use of appropriate strategies in finding | Independently and |

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| | never meets the expectations for this trimester | meets the expectations for this trimester | solutions and justifies choices when posed with real-world problems | consistently exceeds standards for this trimester |
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4) Computes accurately

| Trimester | 1 | 2 | 3 | ES |
|-----------|---|--|--|---|
| All | Rarely or never meets the expectations for this trimester | Inconsistently meets the expectations for this trimester | Consistently identifies appropriate operation and mathematically computes the correct answer | Independently and consistently exceeds standards for this trimester |

5) Effectively communicates mathematical thinking in written and oral form

| Trimester | 1 | 2 | 3 | ES |
|-----------|---|--|---|---|
| All | Rarely or never meets the expectations for this trimester | Inconsistently meets the expectations for this trimester | Consistently communicates mathematical thinking and accurately explains strategies utilized orally and in writing | Independently and consistently exceeds standards for this trimester |