**Number In bold** are expectations to be met in all strands

|  |  |  |  |
| --- | --- | --- | --- |
| **4 - Exceeding** | **3 - Meeting** | **2 - Approaching** | **1 - Working Below** |
| * **Fluently uses precise mathematical language correctly** * **Independently and consistently makes connections among concrete, pictorial and symbolic representations** * **Independently considers and applies alternative strategies to solve a range of complex and unfamiliar problems** * **Independently makes connections between and within the different strands of mathematics** * Consistently represents, compares and orders a wide range of whole numbers, decimals and fractions accurately. * Makes connections between a wide range of fractions, decimals and whole numbers * Consistently uses benchmarks and patterns effectively and efficiently * Makes efficient, logical estimates to predict outcomes and check for reasonableness * Uses strategies (including mental math) efficiently and effectively * Consistently explains strategies and reasoning with clarity, precision, and thoroughness * Few calculation errors or omissions, and are minor | * **Routinely uses mathematical language correctly** * **Makes connections among concrete, pictorial and symbolic representations** * **Routinely selects and applies appropriate strategies to solve problems** * **Makes connections between and within the different strands of mathematics** * Routinely represents, compares and orders whole numbers, decimals and fractions accurately * Makes connections between fractions, decimals and whole numbers * Routinely uses benchmarks and patterns effectively * Routinely makes effective, logical estimates to predict outcomes and check for reasonableness * Routinely uses strategies (including mental math) effectively * Routinely explains strategies and reasoning with clarity * Calculation errors or omissions are minor | * **Inconsistently uses correct mathematical language** * **Sometimes makes connections among concrete, pictorial and symbolic representations** * **Sometimes selects and applies appropriate strategies to solve problems** * **Sometimes makes connections between and within the different strands of mathematics** * Sometimes represents, compares and orders whole numbers, decimals and fractions accurately; may require pictorial or other representations * Sometimes makes connections between fractions, decimals and whole numbers * Occasionally uses benchmarks and patterns * Sometimes makes effective, logical estimates to predict outcomes and check for reasonableness * Sometimes uses strategies (including mental math) effectively * Sometimes explains strategies and reasoning, or explanations may be incomplete * Calculation errors or omissions may include some major | * **Rarely uses correct mathematical language** * **Has difficulty making connections among concrete, pictorial and symbolic representations** * **representations appropriately** * **Rarely selects or applies appropriate strategies to solve problems** * **Rarely makes connections between and within the different strands of mathematics** * Has difficulty representing, comparing and ordering whole numbers, decimals and fractions, even with concrete or pictorial representations * Rarely makes connections between fractions, decimals and whole numbers * Not able to use benchmarks and patterns * Rarely makes logical estimates to predict outcomes or check for reasonableness * Has difficulty using strategies effectively * Has difficulty explaining strategies and reasoning * Calculation errors or omissions are major |

**Patterns and Relations** (Grade 5) **In bold** are expectations to be met in all strands

|  |  |  |  |
| --- | --- | --- | --- |
| **4 - Exceeding** | **3 - Meeting** | **2 - Approaching** | **1 - Working Below** |
| * **Fluently uses precise mathematical language correctly** * **Independently and consistently makes connections among concrete, pictorial and symbolic representations** * **Independently considers and applies alternative strategies to solve a range of complex and unfamiliar problems** * **Independently makes connections between and within the different strands of mathematics** * Consistently identifies, describes, represents and extends a wide range of patterns * Includes precise labels and headings in tables and other representations * Makes connections among a wide range of representations of patterns (symbolic, tables, charts, pictorial, concrete) * Uses patterns and relationships to solve a wide range of problems * Consistently explains patterns and reasoning with clarity, precision, and thoroughness * Consistently represents and solves a wide range of equations * Few errors or omissions, and are minor | * **Routinely uses mathematical language correctly** * **Makes connections among concrete, pictorial and symbolic representations** * **Routinely selects and applies appropriate strategies to solve problems** * **Makes connections between and within the different strands of mathematics** * Routinely identifies, describes, represents and extends patterns * Routinely includes appropriate labels and headings in tables and other representations * Makes connections among various representations of patterns (symbolic, tables, charts, pictorial, concrete) * Uses patterns and relationships to solve problems * Routinely explains patterns and reasoning with clarity * Routinely represents and solves equations * Errors or omissions are minor | * **Inconsistently uses correct mathematical language** * **Sometimes makes connections among concrete, pictorial and symbolic representations** * **Sometimes selects and applies appropriate strategies to solve problems** * **Sometimes makes connections between and within the different strands of mathematics** * Sometimes identifies, describes, represents and extends patterns * Sometimes includes appropriate labels and headings in tables and other representations * Sometimes makes connections among various representations of patterns (symbolic, tables, charts, pictorial, concrete) * Sometimes uses patterns and relationships to solve problems * Sometimes explains patterns and reasoning * Sometimes or with prompting represents and solves equations * Errors or omissions may include some major | * **Rarely uses correct mathematical language** * **Has difficulty making connections among concrete, pictorial and symbolic representations** * **representations appropriately** * **Rarely selects or applies appropriate strategies to solve problems** * **Rarely makes connections between and within the different strands of mathematics** * Has difficulty identifying and describing, representing and extending patterns * Rarely includes labels and headings in tables and other representations * Has difficulty making connections among various representations of patterns (symbolic, tables, charts, pictorial, concrete) * Not able to use patterns and relationships to solve problems * Has difficulty explaining patterns and reasoning * Has difficulty representing and solving equations * Errors or omissions are major |

**Shape and Space** (Grade 5) **In bold** are expectations to be met in all strands

|  |  |  |  |
| --- | --- | --- | --- |
| **4 - Exceeding** | **3 - Meeting** | **2 - Approaching** | **1 - Working Below** |
| * **Fluently uses precise mathematical language correctly** * **Independently and consistently makes connections among concrete, pictorial and symbolic representations** * **Independently considers and applies alternative strategies to solve a range of complex and unfamiliar problems** * **Independently makes connections between and within the different strands of mathematics** * Consistently solves a wide range of problems involving area and perimeter of rectangles * Independently and with ease estimates, uses referents, and measures length, volume and capacity appropriately with correct units * Consistently explains strategies and reasoning with clarity, precision, and thoroughness * Uses attributes to correctly describe and compare a wide range of 2-D shapes and 3-D objects * Routinely identifies, describes, predicts and draws single transformations of a wide range of shapes * Uses precise labels (including units) in diagrams, drawings are proportional * Few errors or omissions, and are minor | * **Routinely uses mathematical language correctly** * **Makes connections among concrete, pictorial and symbolic representations** * **Routinely selects and applies appropriate strategies to solve problems** * **Makes connections between and within the different strands of mathematics** * Routinely solves problems involving area and perimeter of rectangles * Routinely estimates, uses referents, and measures length, volume and capacity appropriately with correct units * Routinely explains strategies and reasoning with clarity * Uses attributes to correctly describe and compare 2-D shapes (especially quadrilaterals) and 3-D objects * Routinely identifies, describes, predicts and draws single transformations * Routinely uses appropriate labels (including units) in diagrams, drawings are proportional * Errors or omissions are minor | * **Inconsistently uses correct mathematical language** * **Sometimes makes connections among concrete, pictorial and symbolic representations** * **Sometimes selects and applies appropriate strategies to solve problems** * **Sometimes makes connections between and within the different strands of mathematics** * Sometimes or with prompting solves problems involving area and perimeter of rectangles * Sometimes estimates, uses referents, and measures length, volume and capacity appropriately with correct units * Sometimes explains strategies and reasoning, or explanations may be incomplete * Sometimes or with prompting uses attributes to correctly describe and compare 2-D shapes (especially quadrilaterals) and 3-D objects * Sometimes or with prompting identifies, describes, predicts and draws single transformations * Sometimes uses appropriate labels (including units) in diagrams, drawings may not be proportional * Errors or omissions may include some major | * **Rarely uses correct mathematical language** * **Has difficulty making connections among concrete, pictorial and symbolic representations** * **representations appropriately** * **Rarely selects or applies appropriate strategies to solve problems** * **Rarely makes connections between and within the different strands of mathematics** * Has difficulty solving problems involving area and perimeter of rectangles * Has difficulty estimating, using referents, and measuring length, volume and capacity appropriately with correct units * Has difficulty explaining strategies and reasoning * Has difficulty using attributes to correctly describe and compare 2-D shapes and 3-D objects * Has difficulty identifying, describing, predicting and drawing single transformations * Rarely uses appropriate labels (including units) in diagrams * Errors or omissions are major |

**Statistics and Probability** (Grade 5) **In bold** are expectations to be met in all strands

|  |  |  |  |
| --- | --- | --- | --- |
| **4 - Exceeding** | **3 - Meeting** | **2 - Approaching** | **1 - Working Below** |
| * **Fluently uses precise mathematical language correctly** * **Independently and consistently makes connections among concrete, pictorial and symbolic representations** * **Independently considers and applies alternative strategies to solve a range of complex and unfamiliar problems** * **Independently makes connections between and within the different strands of mathematics** * Consistently selects appropriate strategies for collecting (first-hand) or finding (second-hand) data to solve a wide range of problems * Chooses organizes data in a format appropriate to a wide range of purposes and problems * Includes precise labels in tables and graphs * Interprets data in a wide range of graphs appropriately * Describes, makes predictions about and compares possible outcomes in a wide range of contexts * Designs and conducts a wide range of probability experiments for given likelihood * Consistently explains strategies and reasoning with clarity, precision, and thoroughness * Few errors or omissions, and are minor | * **Routinely uses mathematical language correctly** * **Makes connections among concrete, pictorial and symbolic representations** * **Routinely selects and applies appropriate strategies to solve problems** * **Makes connections between and within the different strands of mathematics** * Routinely selects appropriate strategies for collecting (first-hand) or finding (second-hand) data to solve problems * Routinely organizes data in a format appropriate to purpose, and to solve problems * Routinely includes appropriate labels in tables and graphs * Interprets data in graphs appropriately * Routinely describes, makes predictions about and compares possible outcomes * Designs and conducts probability experiments for given likelihood * Routinely explains strategies and reasoning with clarity * Errors or omissions are minor | * **Inconsistently uses correct mathematical language** * **Sometimes makes connections among concrete, pictorial and symbolic representations** * **Sometimes selects and applies appropriate strategies to solve problems** * **Sometimes makes connections between and within the different strands of mathematics** * Sometimes or with prompting selects appropriate strategies for collecting (first-hand) or finding (second-hand) data to solve problems * Sometimes or with prompting organizes data in a format appropriate to purpose, and to solve problems * Sometimes or with prompting includes appropriate labels in tables and graphs * Sometimes interprets data in graphs appropriately * Sometimes describes, makes predictions about and compares possible outcomes * Sometimes designs and conducts probability experiments for given likelihood * Sometimes explains strategies and reasoning, or explanations may be incomplete * Errors or omissions may include some major | * **Rarely uses correct mathematical language** * **Has difficulty making connections among concrete, pictorial and symbolic representations** * **representations appropriately** * **Rarely selects or applies appropriate strategies to solve problems** * **Rarely makes connections between and within the different strands of mathematics** * Has difficulty selecting appropriate strategies for collecting (first-hand) or finding (second-hand) data to solve problems * Has difficulty organizing data in a format appropriate to purpose, and solving problems * Rarely includes labels in tables and graphs * Has difficulty interpreting data in graphs appropriately * Has difficulty describing, making predictions about and comparing possible outcomes * Has difficulty designing and conducting probability experiments for given likelihood * Has difficulty explaining strategies and reasoning * Errors or omissions are major |