**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 appropriately** * **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 counts (including skip counting), represents, compares and orders a wide range of whole numbers accurately * Consistently uses benchmarks and patterns effectively and efficiently * Consistently uses referents and estimation strategies 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 appropriately** * **Routinely selects and applies appropriate strategies to solve problems** * **Makes connections between and within the different strands of mathematics** * Routinely counts (including skip counting), represents, compares and orders whole numbers accurately * Routinely uses benchmarks and patterns effectively * Routinely uses referents and estimation strategies 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 appropriately** * **Sometimes selects and applies appropriate strategies to solve problems** * **Sometimes makes connections between and within the different strands of mathematics** * Sometimes counts (including skip counting), represents, compares and orders whole numbers accurately; may require pictorial or other representations * Occasionally uses benchmarks and patterns. * Occasionally uses referents and estimation strategies * 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 appropriately** * **Rarely selects or applies appropriate strategies to solve problems** * **Rarely makes connections between and within the different strands of mathematics** * Has difficulty counting (including skip counting), representing, comparing and ordering whole numbers, even with concrete or pictorial representations * Not able to use benchmarks and patterns * Rarely uses referents and estimation strategies. * Rarely makes logical estimates to predict outcomes or check for reasonableness * Has difficulty using strategies (including mental math) effectively * Has difficulty explaining strategies and reasoning * Calculation errors or omissions are major |

**Patterns and Relations** **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, extends, compares and creates a wide range of patterns * Makes connections among a wide range of representations of patterns (written/oral, pictorial, concrete) * Uses patterns to solve a wide range of problems * Consistently explains patterns and reasoning with clarity, precision, and thoroughness * Consistently represents (concretely, pictorially, symbolically) and explains more complex examples of equality and inequality * 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, extends, compares and creates patterns * Makes connections among various representations of patterns (written/oral, pictorial, concrete) * Uses patterns to solve problems * Routinely explains patterns and reasoning with clarity * Routinely represents (concretely, pictorially, symbolically) and explains equality and inequality * 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, extends, compares and creates patterns * Sometimes makes connections among various representations of patterns (written/oral, pictorial, concrete) * Sometimes uses patterns to solve problems * Sometimes explains patterns and reasoning * Sometimes or with prompting represents (concretely, pictorially, symbolically) and explains equality and inequality * 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, describing, extending, comparing and creating patterns * Has difficulty making connections among various representations of patterns (written/oral, pictorial, concrete) * Not able to use patterns to solve problems * Has difficulty explaining patterns and reasoning * Has difficulty representing (concretely, pictorially, symbolically) and explaining equality and inequality * Errors or omissions are major |

**Shape and Space** **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** * Independently and with ease measures estimates, uses referents, and measures time, length, height and mass appropriately with non-standard units * Uses referents and estimation strategies effectively and efficiently * Consistently explains strategies and reasoning with clarity, precision, and thoroughness * Identifies, describes, constructs, compares and sorts a wide range of 3-D objects and 2-D shapes using attributes * Uses precise labels in diagrams * 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 estimates, uses referents and measures time, length, height and mass appropriately with non-standard units * Uses referents and estimation strategies effectively * Routinely explains strategies and reasoning with clarity * Identifies, describes, constructs, compares and sorts 3-D objects and 2-D shapes using attributes * Routinely uses appropriate labels in diagrams * 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 estimates, uses referents, and measures time, length, height and mass appropriately with non-standard units * Sometimes uses referents and estimation strategies * Sometimes explains strategies and reasoning, or explanations may be incomplete * Sometimes or with prompting identifies, describes, constructs, compares and sorts 3-D objects and 2-D shapes using attributes * Sometimes uses appropriate labels in diagrams * 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 estimating, using referents, and measuring time, length, height and mass appropriately with non-standard units * Has difficulty using referents and estimation strategies effectively * Has difficulty explaining strategies and reasoning * Has difficulty identifying, describing, constructing, comparing and sorting 3-D objects and 2-D shapes using attributes * Rarely uses appropriate labels in diagrams * Errors or omissions are major |

**Statistics and Probability** **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 data to solve a wide range of problems * Consistently organizes data in a way appropriate to purpose, and to solve a wide range of problems (tally marks, concrete graph, pictograph) * Consistently includes precise labels and headings in tables and graphs * Interprets a wide range of data appropriately to answer questions and solve problems * 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 data to solve problems * Routinely organizes data in a way appropriate to purpose, and to solve problems (tally marks, concrete graph, pictograph) * Routinely includes appropriate labels and headings in tables and graphs * Interprets data appropriately to answer questions and solve problems * 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 data to solve problems * Sometimes or with prompting organizes data in a way appropriate to purpose, and to solve problems (tally marks, concrete graph, pictograph) * Sometimes or with prompting includes appropriate labels and headings in tables and graphs * Sometimes or with prompting interprets data appropriately to answer questions and solve problems * 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 data to solve problems * Has difficulty organizing data in a way appropriate to purpose, and to solve problems (tally marks, concrete graph, pictograph) * Rarely includes labels and headings in tables and graphs * Has difficulty interpreting data appropriately to answer questions and solve problems * Has difficulty explaining strategies and reasoning * Errors or omissions are major |