**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** **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 and describes a wide range of patterns * Includes precise labels and headings in tables, graphs and other representations * Makes connections among a wide range of representations of patterns (written/oral, 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, describes, 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 and describes patterns * Routinely includes appropriate labels and headings in tables, graphs and other representations * Makes connections among various representations of patterns (written/oral, tables, charts, pictorial, concrete) * Uses patterns and relationships to solve problems * Routinely explains patterns and reasoning with clarity * Routinely represents, describes, 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 and describes patterns * Sometimes includes appropriate labels and headings in tables, graphs and other representations * Sometimes makes connections among various representations of patterns (written/oral, tables, charts, pictorial, concrete) * Sometimes uses patterns and relationships to solve problems * Sometimes explains patterns and reasoning * Sometimes or with prompting represents, describes, 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 patterns * Rarely includes labels and headings in tables, graphs and other representations * Has difficulty making connections among various representations of patterns (written/oral, tables, charts, pictorial, concrete) * Not able to use patterns and relationships to solve problems * Has difficulty explaining patterns and reasoning * Has difficulty representing, describing, and solving equations * 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 time (clocks, calendars) appropriately with correct units or formats * Consistently describes and determines area of a wide variety of shapes, indicating units * Uses referents and estimation strategies effectively and efficiently * Consistently explains strategies and reasoning with clarity, precision, and thoroughness * Identifies, describes, constructs and compares prisms using attributes * Identifies, describes, creates and compares symmetrical and congruent shapes * Uses precise labels (including units) 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 measures time (clocks, calendars) appropriately with correct units or formats * Routinely describes and determines area, indicating units * Uses referents and estimation strategies effectively * Routinely explains strategies and reasoning with clarity * Identifies, describes and constructs prisms using attributes * Identifies, describes and creates symmetrical and congruent shapes * Routinely uses appropriate labels (including units) 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 measures time (clocks, calendars) appropriately with correct units or formats * Sometimes describes and determines area, indicating units * Sometimes uses referents and estimation strategies * Sometimes explains strategies and reasoning, or explanations may be incomplete * Sometimes or with prompting identifies, describes and constructs prisms * Sometimes or with prompting identifies, describes and creates symmetrical and congruent shapes * Sometimes uses appropriate labels (including units) 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 measuring time (clocks, calendars) appropriately with correct units or formats * Has difficulty describing and determining area * Has difficulty using referents and estimation strategies effectively * Has difficulty explaining strategies and reasoning * Has difficulty identifying, describing and constructing prisms * Has difficulty identifying, describing and creating symmetrical and congruent shapes * Rarely uses appropriate labels (including units) 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** * Chooses graph type and scales appropriate for a wide range of data and purpose, and constructs graph * Includes precise labels in tables and graphs * Interprets data in a wide range of graphs appropriately * 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 chooses graph type and scales appropriate for data and purpose, and constructs graph * Routinely includes appropriate labels in tables and graphs * Interprets data in graphs appropriately * 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 chooses graph type and scales appropriate for data and purpose, and constructs graph * Sometimes or with prompting includes appropriate labels in tables and graphs * Sometimes interprets data in graphs appropriately * 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 choosing graph type and scales appropriate for data and purpose, and constructing graph * Rarely includes labels in tables and graphs * Has difficulty interpreting data in graphs appropriately * Has difficulty explaining strategies and reasoning * Errors or omissions are major |