**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
 |