**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, represents, compares and orders a wide range of whole numbers and fractions accurately.
* Makes connections between a wide range of whole numbers and fractions
* 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, represents, compares and orders whole numbers and fractions accurately
* Makes connections between fractions and whole numbers
* 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, represents, compares and orders whole numbers and fractions accurately; may require pictorial or other representations
* Sometimes makes connections between fractions and whole numbers
* 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, representing, comparing and ordering whole numbers and fractions, even with concrete or pictorial representations
* Rarely makes connections between fractions and whole numbers
* 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 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, 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, 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 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, 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, 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, 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, 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 estimates, uses referents, and measures time, length, perimeter and mass, appropriately with correct units
* Uses referents and estimation strategies effectively and efficiently
* Consistently explains strategies and reasoning with clarity, precision, and thoroughness
* Identifies, describes, constructs and sorts a wide range of 3-D objects using attributes
* Identifies, describes, creates and sorts a wide range of polygons using attributes
* 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 estimates, uses referents and measures time, length, perimeter and mass, appropriately with correct units
* Uses referents and estimation strategies effectively
* Routinely explains strategies and reasoning with clarity
* Identifies, describes, constructs and sorts 3-D objects using attributes
* Identifies, describes and sorts polygons using attributes
* 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 estimates, uses referents, and measures time, length, perimeter and mass, appropriately with correct units
* Sometimes uses referents and estimation strategies
* Sometimes explains strategies and reasoning, or explanations may be incomplete
* Sometimes or with prompting identifies, describes, constructs and sorts 3-D objects using attributes
* Sometimes or with prompting identifies, describes and sorts polygons using attributes
* 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 estimating, using referents, and measuring time, length, perimeter and mass, appropriately with correct units
* Has difficulty using referents and estimation strategies effectively
* Has difficulty explaining strategies and reasoning
* Has difficulty identifying, describing, constructing and sorting 3-D objects
* Has difficulty identifying, describing and sorting polygons using attributes
* 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**
* 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 system, line plot, chart, list, bar graph)
* 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 system, line plot, chart, list, bar graph)
* 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 system, line plot, chart, list, bar graph)
* 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 system, line plot, chart, list, bar graph)
* 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
 |