Number

	4 - Excelling	3 - Meeting	2 - Approaching	1 - Working Below
<u>s</u>	Consistently uses precise mathematical	Routinely uses correct mathematical	Sometimes uses correct	Rarely uses correct mathematical
and	language	language	mathematical language	language
Expectations included in all 4 strands	Consistently and independently makes	Routinely makes effective connections	Sometimes makes connections	Rarely makes connections
a	appropriate connections among	among concrete, pictorial and symbolic	among concrete, pictorial and	among concrete, pictorial and
ᆵ	concrete, pictorial and symbolic	representations	symbolic representations with	symbolic representations
ge	representations		support	
밀	Consistently and independently selects	Routinely selects and applies	Sometimes selects and applies	Rarely selects or applies
l su	and applies appropriate strategies to	appropriate strategies to solve problems	appropriate strategies to solve	appropriate strategies to solve
atic	solve a range of complex problems	Deutinalis males affective assessing	problems	problems
)ec	Consistently and independently makes	Routinely makes effective connections	Sometimes makes connections	Rarely makes connections
Ä	insightful connections between and within the different strands of math	between and within the different strands of math	between and within the different strands of math	between and within the different strands of math
	Consistently represents, compares and	Routinely represents, compares and		Rarely represents, compares and
	orders a wide range of whole numbers,	orders whole numbers, integers,	Sometimes represents, compares and orders whole numbers, integers,	orders whole numbers, integers,
	integers, decimals, mixed numbers,	decimals, mixed numbers, and fractions	decimals, mixed numbers, and	decimals, mixed numbers, and
	and fractions accurately	accurately	fractions accurately; may require	fractions accurately, even with
	and madicing according	accuratory	pictorial or other representations	other representations
	Consistently and independently makes	Routinely makes connections between	Sometimes makes connections	Rarely makes connections
	connections between a wide range of	fractions, decimals, whole numbers,	between fractions, decimals, whole	between fractions, decimals,
	fractions, decimals, whole numbers,	mixed numbers, ratios, percent, and	numbers, mixed numbers, ratios,	whole numbers, mixed numbers,
	mixed numbers, ratios, percent, and	integers	percent, and integers	ratios, percent, and integers
	integers			
	Consistently and independently uses	Routinely and effectively uses referents	Sometimes uses referents and	Rarely uses referents and
	referents and estimation strategies	and estimation strategies	estimation strategies	estimation strategies
	effectively and efficiently			
	Consistently and independently uses	Routinely and effectively uses	Sometimes uses benchmarks and	Rarely uses benchmarks and
	benchmarks and patterns effectively	benchmarks and patterns	patterns	patterns
	and efficiently	Doutingly makes offective and logical	Sometimes makes effective and	Darahy makaa lagigal aatimataa ta
	Makes efficient and logical estimates to predict outcomes and check for	Routinely makes effective and logical estimates to predict outcomes and	logical estimates to predict outcomes	Rarely makes logical estimates to predict outcomes or check for
	reasonableness	check for reasonableness	and check for reasonableness	reasonableness
	Uses strategies (including mental math)	Routinely uses strategies (including	Sometimes uses strategies (including	Rarely uses strategies effectively
	effectively and efficiently	mental math) effectively	mental math) effectively	(including mental math)
	Consistently and independently	Routinely and clearly explains strategies	Sometimes explains strategies and	Has difficulty explaining
	explains strategies and reasoning with	and reasoning	reasoning, or explanations may be	strategies and reasoning
	clarity, precision, and thoroughness	3	incomplete	3
	Consistently and independently selects	Routinely selects and applies the correct	Sometimes selects and applies the	Has difficulty selecting and
	and applies the correct operation to	operation to solve problems with	correct operation to solve problems	applying the correct operation to
	solve problems with accuracy	accuracy		solve problems
	Rarely makes minor errors	Few minor errors	Some major errors	Many major errors
	Evidence : (following Statistics and Proba			

<u>Evidence</u>: (following Statistics and Probability section)<u>Glossary of key words</u>: (following Evidence section at end of document)

Math - Grade 7

Patterns and Relations

	4 - Excelling	3 - Meeting	2 - Approaching	1 - Working Below
	Consistently uses precise mathematical language	Routinely uses correct mathematical language	Sometimes uses correct mathematical language	Rarely uses correct mathematical language
in all 4 strands	Consistently and independently makes appropriate connections among concrete, pictorial and symbolic representations	Routinely makes effective connections among concrete, pictorial and symbolic representations	Sometimes makes connections among concrete, pictorial and symbolic representations with support	Rarely makes connections among concrete, pictorial and symbolic representations
Expectations included in	Consistently and independently selects and applies appropriate strategies to solve a range of complex problems	Routinely selects and applies appropriate strategies to solve problems	Sometimes selects and applies appropriate strategies to solve problems	Rarely selects or applies appropriate strategies to solve problems
Expecta	Consistently and independently makes insightful connections between and within the different strands of math	Routinely makes effective connections between and within the different strands of math	Sometimes makes connections between and within the different strands of math	Rarely makes connections between and within the different strands of math
	Consistently and independently makes connections among a wide range of representations of patterns (concrete, pictorial, symbolic, graphs, tables, written/oral)	Routinely makes connections among various representations of patterns (concrete, pictorial, symbolic, graphs, tables, written/oral)	Sometimes makes connections among various representations of patterns (concrete, pictorial, symbolic, graphs, tables, written/oral)	Rarely makes connections among various representations of patterns (concrete, pictorial, symbolic, graphs, tables, written/oral)
	Consistently includes precise labels and headings in tables, graphs and other representations	Routinely includes appropriate labels and headings in tables, graphs and other representations	Sometimes includes appropriate labels and headings in tables, graphs and other representations	Rarely includes labels and headings in tables, graphs and other representations
	Consistently and independently explains patterns and reasoning with clarity, precision, and thoroughness	Routinely and clearly explains patterns and reasoning	Sometimes explains patterns and reasoning	Has difficulty explaining patterns and reasoning
	Consistently and independently represents a wide variety of situations and solves problems that involve linear relationships	Routinely represents situations and solves problems that involve linear relationships	Sometimes represents situations and solves problems that involve linear relationships	Rarely represents situations and solves problems that involve linear relationships
	Consistently and independently applies preservation of equality to solving a wide range of linear equations	Routinely applies preservation of equality to solving linear equations	Sometimes applies preservation of equality to solving linear equations	Rarely applies preservation of equality to solving linear equations
	Rarely makes minor errors	Few minor errors	Some major errors	Many major errors
	Evidence: (following Statistics and Prob			

Glossary of key words: (following Evidence section at end of document)

Shape and Space

	4 - Excelling	3 - Meeting	2 - Approaching	1 - Working Below	
S	Consistently uses precise mathematical	Routinely uses correct	Sometimes uses correct	Rarely uses correct mathematical	
in all 4 strands	language	mathematical language	mathematical language	language	
st	Consistently and independently makes	Routinely makes effective	Sometimes makes connections	Rarely makes connections	
all 4	appropriate connections among concrete,	connections among concrete,	among concrete, pictorial and	among concrete, pictorial and	
.⊑	pictorial and symbolic representations	pictorial and symbolic	symbolic representations with	symbolic representations	
ded		representations	support		
- Po	Consistently and independently selects and	Routinely selects and applies	Sometimes selects and applies	Rarely selects or applies	
is i	applies appropriate strategies to solve a	appropriate strategies to solve	appropriate strategies to solve	appropriate strategies to solve	
Expectations included	range of complex problems	problems	problems	problems	
scta	Consistently and independently makes	Routinely makes effective	Sometimes makes connections	Rarely makes connections	
ğ	insightful connections between and within	connections between and within	between and within the different	between and within the different	
	the different strands of math	the different strands of math	strands of math	strands of math	
	Consistently and independently explains the	Routinely explains the various	Sometimes explains the various	Has difficulty explaining the	
	various attributes of a circle and solves a	attributes of a circle and solves	attributes of a circle and solves	various attributes of a circle and	
	wide range of related problems	related problems	related problems	solves related problems	
	Consistently and independently (and	Routinely solves problems	Sometimes solves problems involving	Has difficulty solving problems	
	accurately) solves a wide range of problems	involving area of triangles,	area of triangles, parallelograms and	involving area of triangles,	
	involving area of triangles, parallelograms	parallelograms and circles	circles	parallelograms and circles	
	and circles				
	Consistently and independently performs,	Routinely performs, explains and	Sometimes performs, explains and	Has difficulty performing,	
	explains and verifies a range of geometric	verifies geometric constructions	verifies geometric constructions	explaining and verifying	
	constructions			geometric constructions	
	Consistently and independently estimates as	Routinely estimates as appropriate	Sometimes estimates as appropriate	Has difficulty estimating	
	appropriate	D :: 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		11 1990 10 1 1 1 1 1	
	Consistently explains strategies and	Routinely and clearly explains	Sometimes explains strategies and	Has difficulty explaining patterns	
	reasoning with clarity, precision, and	strategies and reasoning	reasoning, or explanations may be	and reasoning	
	thoroughness	D (1 1 1 1 (2)	incomplete	11 1777 10 11 177	
	Consistently and independently identifies	Routinely identifies and plots points	Sometimes identifies and plots points	Has difficulty identifying and	
	and plots points using ordered pairs (all	using ordered pairs (all quadrants	using ordered pairs (all quadrants of	ploting points using ordered pairs	
	quadrants of Cartesian plane)	of Cartesian plane)	Cartesian plane)	(all quadrants of Cartesian plane)	
	Consistently and independently	Routinely and accurately identifies,	Sometimes identifies, describes,	Has difficulty identifying,	
	independently (and accurately) identifies,	describes, predicts and draws	predicts and draws transformations	describing, predicting and	
	describes, predicts and draws	transformations (all quadrants of	(all quadrants of Cartesian plane)	drawing transformations (all	
	transformations (all quadrants of Cartesian	Cartesian plane)		quadrants of Cartesian plane)	
}	plane) of a wide range of shapes	Doutingly upon oppressints labels	Comptimes uses appropriate label	Doroly upon oppropriate labels	
	Consistently and independently uses precise	Routinely uses appropriate labels	Sometimes uses appropriate labels	Rarely uses appropriate labels	
	labels (including units) in diagrams;	(including units) in diagrams;	(including units) in diagrams;	(including units) in diagrams	
ŀ	drawings are proportional	drawings are proportional	drawings may not be proportional	Many major arrara	
	Rarely makes minor errors	Few minor errors	Some major errors	Many major errors	
Evidence: (following Statistics and Probability section)					
	Glossary of key words: (following Evidence section at end of document)				

Glossary of key words: (following Evidence section at end of document)

Math - Grade 7

Statistics and Probability

	4 - Excelling	3 - Meeting	2 - Approaching	1 - Working Below
Js	Consistently uses precise mathematical	Routinely uses correct	Sometimes uses correct mathematical	Rarely uses correct mathematical
auc	language	mathematical language	language	language
1 sti	Consistently and independently makes	Routinely makes effective	Sometimes makes connections among	Rarely makes connections among
all 2	appropriate connections among	connections among concrete,	concrete, pictorial and symbolic	concrete, pictorial and symbolic
Ë	concrete, pictorial and symbolic	pictorial and symbolic	representations with support	representations
ge	representations	representations		
ᄓ	Consistently and independently selects	Routinely selects and applies	Sometimes selects and applies	Rarely selects or applies appropriate
ns i	and applies appropriate strategies to	appropriate strategies to solve	appropriate strategies to solve	strategies to solve problems
atio	solve a range of complex problems	problems	problems	
Expectations included in all 4 strands	Consistently and independently makes	Routinely makes effective	Sometimes makes connections	Rarely makes connections between
Exp	insightful connections between and	connections between and within the	between and within the different	and within the different strands of
	within the different strands of math	different strands of math	strands of math	math
	Consistently and independently selects	Routinely selects appropriate	Sometimes selects appropriate	Rarely selects appropriate strategies
	appropriate strategies for collecting or	strategies for collecting or finding	strategies for collecting or finding data	for collecting or finding data to answer
	finding data to answer questions or	data to answer questions or solve	to answer questions or solve problems	questions or solve problems
	solve a wide range of problems	problems	Comptimes organizes data in a format	Darely ergenizes data in a format
	Consistently and independently organizes data in a format appropriate	Routinely organizes data in a format appropriate to purpose, and	Sometimes organizes data in a format appropriate to purpose, and to solve	Rarely organizes data in a format appropriate to purpose, and solving
	to a wide range of purposes and	to solve problems (including use of	problems (including use of range,	problems (including use of range,
	problems (including use of range,	range, outliers, mean, median,	outliers, mean, median, mode)	outliers, mean, median, mode)
	outliers, mean, median, mode)	mode)	odiners, median, median, mede)	duliers, mean, median, mede)
	Consistently and independently	Routinely includes appropriate	Sometimes includes appropriate labels	Rarely includes labels in charts, tables
	includes precise labels in charts, tables	labels in charts, tables and graphs	in charts, tables and graphs	and graphs
	and graphs	g. арто	5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5. 5.	graphic
	Consistently and independently	Routinely interprets data	Sometimes interprets data in graphs	Has difficulty interpreting data in
	interprets data in a wide range of	appropriately to answer questions	appropriately	graphs appropriately
	graphs appropriately	and solve problems		
	Consistently explains and determines	Routinely explains and determines	Sometimes explains and determines	Has difficulty explaining and
	experimental and theoretical probability	experimental and theoretical	experimental and theoretical	determining experimental and
	for a wide range of contexts (ratio,	probability (ratio, fraction, percent)	probability (ratio, fraction, percent)	theoretical probability (ratio, fraction,
	fraction, percent) including for two	including for two independent	including for two independent events	percent) including for two independent
	independent events	events		events
	Consistently and independently	Routinely and clearly explains	Sometimes explains strategies and	Has difficulty explaining strategies and
	explains strategies and reasoning with	strategies and reasoning	reasoning, or explanations may be	reasoning
	clarity, precision, and thoroughness		incomplete	
	Rarely makes minor errors	Few minor errors	Some major errors	Many major errors
	Evidence : (following Statistics and Proba	bility section)		
	Glossary of key words: (following Evider			

Glossary of key words: (following Evidence section at end of document)

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Evidence of Learning: Suggested Sources

Observations:

- Observe students using models (materials and manipulatives) and diagrams
- Observe students playing games.
- Observe students completing tasks
- Observe student presentations and demonstrations
- Use listening checklist of mathematical language
- Notes from guided math sessions
- "Gallery" walks

Conversations (oral/written):

- Conferences
- Interviews
- Whole class and group discussions
- Guided tasks
- Math talks
- Math journal entry
- Exit slips (written responses)
- Self- and peer assessment and reflection

Products:

- Quizzes (oral/written)
- Projects
- Tests
- Graphs
- Song, poem, art
- Work samples
- Exit slips or other responses to questions
- Math journal entry
- Photos of student use of models
- Group problem solving records
- Portfolios

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Glossary

<u>Appropriate</u>: is aligned with the expectations of the curriculum document (e.g., *Routinely selects and applies appropriate strategies to solve problems*).

Benchmarks: numbers used to compare and order other numbers (e.g., 5, 10, 25, 50, 100).

Concrete representation: using materials/manipulatives (e.g., counters, pattern blocks) to show a mathematical concept or solve a problem

Consistently: always acting or behaving in the same way and of the same quality

Effective: approach used consistently provides an accurate solution

Efficient: approach used has minimal number of steps (based on the expectations of the curriculum) and consistently provides an accurate solution

<u>Pictorial representation</u>: using drawings/diagrams (e.g., drawings of the model, number lines) to show a mathematical concept or solve a problem

Rarely: not often; even with support

Referent: a concrete representation of a quantity or a unit of measurement (it is helpful if the representation is personally meaningful)

Routinely: done very often with no support

Sometimes: occasionally and/or with support

Subitizing: using familiar arrangements of objects to determine how many there are without counting (e.g., dice)

Symbolic representation: using numbers and mathematical symbols (e.g., 9, +, ÷) to show a mathematical concept or solve a problem