

Grade One Number Strand Rubric

	4	3 (At Grade Level)	2	1
Strategies	The student can independently use prior knowledge to choose, create, and apply multiple efficient strategies to engage in varied and rich mathematical problems.	The student can independently use prior knowledge to choose and apply strategies to engage in mathematical problems.	The student is developing the ability to select and use strategies to engage in mathematical problems.	The student is not yet able to select and use strategies to engage in mathematical problems.
Application	The student demonstrates exemplary accuracy, flexibility, and efficiency while engaging in new contexts and complex math problems.	The student demonstrates accuracy, flexibility, and efficiency when solving math problems.	The student is developing the ability to demonstrate accuracy, flexibility, and efficiency when solving math problems.	The student is not yet accurate, flexible nor efficient when solving math problems.
Expression of Understanding	The student can independently and efficiently justify thinking with multiple representations using precise mathematical language. Logical connections are being made to synthesize mathematical concepts.	The student is able to justify thinking through multiple representations using mathematical language. Logical connections are being made across mathematical concepts.	The student is able to justify thinking with a single representation while using inconsistent mathematical language. Logical connections are being made across some mathematical concepts.	The student is not yet able to justify thinking or show representations and is not yet able to use mathematical language. Logical connections are not yet being made across mathematical concepts.
	In grade one , the above criteria apply to representing, composing and decomposing whole numbers to 100; addition and subtraction, as defined by the curricular document.			

Grade Two Number Strand Rubric

	4	3 (At Grade Level)	2	1
Strategies	The student can independently use prior knowledge to choose, create, and apply multiple efficient strategies to engage in varied and rich mathematical problems.	The student can independently use prior knowledge to choose and apply strategies to engage in mathematical problems.	The student is developing the ability to select and use strategies to engage in mathematical problems.	The student is not yet able to select and use strategies to engage in mathematical problems.
Application	The student demonstrates exemplary accuracy, flexibility, and efficiency while engaging in new contexts and complex math problems.	The student demonstrates accuracy, flexibility, and efficiency when solving math problems.	The student is developing the ability to demonstrate accuracy, flexibility, and efficiency when solving math problems.	The student is not yet accurate, flexible nor efficient when solving math problems.
Expression of Understanding	The student can independently and efficiently justify thinking with multiple representations using precise mathematical language. Logical connections are being made to synthesize mathematical concepts.	The student is able to justify thinking through multiple representations using mathematical language. Logical connections are being made across mathematical concepts.	The student is able to justify thinking with a single representation while using inconsistent mathematical language. Logical connections are being made across some mathematical concepts.	The student is not yet able to justify thinking or show representations and is not yet able to use mathematical language. Logical connections are not yet being made across mathematical concepts.
	<i>In grade two, the above criteria apply to whole numbers to 100; addition and subtraction, as defined by the curricular document.</i>			

Grade Three Number Strand Rubric

	4	3 (At Grade Level)	2	1
Strategies	The student can independently use prior knowledge to choose, create, and apply multiple efficient strategies to engage in varied and rich mathematical problems.	The student can independently use prior knowledge to choose and apply strategies to engage in mathematical problems.	The student is developing the ability to select and use strategies to engage in mathematical problems.	The student is not yet able to select and use strategies to engage in mathematical problems.
Application	The student demonstrates exemplary accuracy, flexibility, and efficiency while engaging in new contexts and complex math problems.	The student demonstrates accuracy, flexibility, and efficiency when solving math problems.	The student is developing the ability to demonstrate accuracy, flexibility, and efficiency when solving math problems.	The student is not yet accurate, flexible nor efficient when solving math problems.
Expression of Understanding	The student can independently and efficiently justify thinking with multiple representations using precise mathematical language. Logical connections are being made to synthesize mathematical concepts.	The student is able to justify thinking through multiple representations using mathematical language. Logical connections are being made across mathematical concepts.	The student is able to justify thinking with a single representation while using inconsistent mathematical language. Logical connections are being made across some mathematical concepts.	The student is not yet able to justify thinking or show representations and is not yet able to use mathematical language. Logical connections are not yet being made across mathematical concepts.
	In grade three , the above criteria apply to addition, subtraction, multiplication, and division of whole numbers to 1000; and fractions, as defined by the curricular document.			

Grade Four Number Strand Rubric

	4	3 (At Grade Level)	2	1
Strategies	The student can independently use prior knowledge to choose, create, and apply multiple efficient strategies to engage in varied and rich mathematical problems.	The student can independently use prior knowledge to choose and apply strategies to engage in mathematical problems.	The student is developing the ability to select and use strategies to engage in mathematical problems.	The student is not yet able to select and use strategies to engage in mathematical problems.
Application	The student demonstrates exemplary accuracy, flexibility, and efficiency while engaging in new contexts and complex math problems.	The student demonstrates accuracy, flexibility, and efficiency when solving math problems.	The student is developing the ability to demonstrate accuracy, flexibility, and efficiency when solving math problems.	The student is not yet accurate, flexible nor efficient when solving math problems.
Expression of Understanding	The student can independently and efficiently justify thinking with multiple representations using precise mathematical language. Logical connections are being made to synthesize mathematical concepts.	The student is able to justify thinking through multiple representations using mathematical language. Logical connections are being made across mathematical concepts.	The student is able to justify thinking with a single representation while using inconsistent mathematical language. Logical connections are being made across some mathematical concepts.	The student is not yet able to justify thinking or show representations and is not yet able to use mathematical language. Logical connections are not yet being made across mathematical concepts.
	In grade four , the above criteria apply to addition, subtraction, multiplication, and division of whole numbers to 10 000; and fractions, as defined by the curricular document.			

Grade Five Number Strand Rubric

	4	3 (At Grade Level)	2	1
Strategies	The student can independently use prior knowledge to choose, create, and apply multiple efficient strategies to engage in varied and rich mathematical problems.	The student can independently use prior knowledge to choose and apply strategies to engage in mathematical problems.	The student is developing the ability to select and use strategies to engage in mathematical problems.	The student is not yet able to select and use strategies to engage in mathematical problems.
Application	The student demonstrates exemplary accuracy, flexibility, and efficiency while engaging in new contexts and complex math problems.	The student demonstrates accuracy, flexibility, and efficiency when solving math problems.	The student is developing the ability to demonstrate accuracy, flexibility, and efficiency when solving math problems.	The student is not yet accurate, flexible nor efficient when solving math problems.
Expression of Understanding	The student can independently and efficiently justify thinking with multiple representations using precise mathematical language. Logical connections are being made to synthesize mathematical concepts.	The student is able to justify thinking through multiple representations using mathematical language. Logical connections are being made across mathematical concepts.	The student is able to justify thinking with a single representation while using inconsistent mathematical language. Logical connections are being made across some mathematical concepts.	The student is not yet able to justify thinking or show representations and is not yet able to use mathematical language. Logical connections are not yet being made across mathematical concepts.
	In grade five , the above criteria apply to addition, subtraction, multiplication and division of whole numbers; and fractions (decimals), as defined by the curricular document.			

Grade Six Number Strand Rubric

	4	3 (At Grade Level)	2	1
Strategies	The student can independently use prior knowledge to choose, create, and apply multiple efficient strategies to engage in varied and rich mathematical problems.	The student can independently use prior knowledge to choose and apply strategies to engage in mathematical problems.	The student is developing the ability to select and use strategies to engage in mathematical problems.	The student is not yet able to select and use strategies to engage in mathematical problems.
Application	The student demonstrates exemplary accuracy, flexibility, and efficiency while engaging in new contexts and complex math problems.	The student demonstrates accuracy, flexibility, and efficiency when solving math problems.	The student is developing the ability to demonstrate accuracy, flexibility, and efficiency when solving math problems.	The student is not yet accurate, flexible nor efficient when solving math problems.
Expression of Understanding	The student can independently and efficiently justify thinking with multiple representations using precise mathematical language. Logical connections are being made to synthesize mathematical concepts.	The student is able to justify thinking through multiple representations using mathematical language. Logical connections are being made across mathematical concepts.	The student is able to justify thinking with a single representation while using inconsistent mathematical language. Logical connections are being made across some mathematical concepts.	The student is not yet able to justify thinking or show representations and is not yet able to use mathematical language. Logical connections are not yet being made across mathematical concepts.
	<i>In grade six, the above criteria apply to addition, subtraction, multiplication, and division of fractions (decimals) and/or whole numbers; order of operations; integers; ratios; and percentages, as defined by the curricular document.</i>			

Grade Seven Number Strand Rubric

	4	3 (At Grade Level)	2	1
Strategies	The student can independently use prior knowledge to choose, create, and apply multiple efficient strategies to engage in varied and rich mathematical problems.	The student can independently use prior knowledge to choose and apply strategies to engage in mathematical problems.	The student is developing the ability to select and use strategies to engage in mathematical problems.	The student is not yet able to select and use strategies to engage in mathematical problems.
Application	The student demonstrates exemplary accuracy, flexibility, and efficiency while engaging in new contexts and complex math problems.	The student demonstrates accuracy, flexibility, and efficiency when solving math problems.	The student is developing the ability to demonstrate accuracy, flexibility, and efficiency when solving math problems.	The student is not yet accurate, flexible nor efficient when solving math problems.
Expression of Understanding	The student can independently and efficiently justify thinking with multiple representations using precise mathematical language. Logical connections are being made to synthesize mathematical concepts.	The student is able to justify thinking through multiple representations using mathematical language. Logical connections are being made across mathematical concepts.	The student is able to justify thinking with a single representation while using inconsistent mathematical language. Logical connections are being made across some mathematical concepts.	The student is not yet able to justify thinking or show representations and is not yet able to use mathematical language. Logical connections are not yet being made across mathematical concepts.
	<i>In grade seven, the above criteria apply to addition, subtraction, multiplication, and division of fractions (decimals) and/or whole numbers; integers; and percentages, as defined by the curricular document.</i>			

Grade Eight Number Strand Rubric

	4	3 (At Grade Level)	2	1
Strategies	The student can independently use prior knowledge to choose, create, and apply multiple efficient strategies to engage in varied and rich mathematical problems.	The student can independently use prior knowledge to choose and apply strategies to engage in mathematical problems.	The student is developing the ability to select and use strategies to engage in mathematical problems.	The student is not yet able to select and use strategies to engage in mathematical problems.
Application	The student demonstrates exemplary accuracy, flexibility, and efficiency while engaging in new contexts and complex math problems.	The student demonstrates accuracy, flexibility, and efficiency when solving math problems.	The student is developing the ability to demonstrate accuracy, flexibility, and efficiency when solving math problems.	The student is not yet accurate, flexible nor efficient when solving math problems.
Expression of Understanding	The student can independently and efficiently justify thinking with multiple representations using precise mathematical language. Logical connections are being made to synthesize mathematical concepts.	The student is able to justify thinking through multiple representations using mathematical language. Logical connections are being made across mathematical concepts.	The student is able to justify thinking with a single representation while using inconsistent mathematical language. Logical connections are being made across some mathematical concepts.	The student is not yet able to justify thinking or show representations and is not yet able to use mathematical language. Logical connections are not yet being made across mathematical concepts.
	In grade eight , the above criteria apply to addition, subtraction, multiplication, and division of fractions (decimals) and/or integers; squares and square roots; rates; ratios; proportional reasoning; and percentages, as defined by the curricular document.			

Grade Nine Number Strand Rubric

	4	3 (At Grade Level)	2	1
Strategies	The student can independently use prior knowledge to choose, create, and apply multiple efficient strategies to engage in varied and rich mathematical problems.	The student can independently use prior knowledge to choose and apply strategies to engage in mathematical problems.	The student is developing the ability to select and use strategies to engage in mathematical problems.	The student is not yet able to select and use strategies to engage in mathematical problems.
Application	The student demonstrates exemplary accuracy, flexibility, and efficiency while engaging in new contexts and complex math problems.	The student demonstrates accuracy, flexibility, and efficiency when solving math problems.	The student is developing the ability to demonstrate accuracy, flexibility, and efficiency when solving math problems.	The student is not yet accurate, flexible nor efficient when solving math problems.
Expression of Understanding	The student can independently and efficiently justify thinking with multiple representations using precise mathematical language. Logical connections are being made to synthesize mathematical concepts.	The student is able to justify thinking through multiple representations using mathematical language. Logical connections are being made across mathematical concepts.	The student is able to justify thinking with a single representation while using inconsistent mathematical language. Logical connections are being made across some mathematical concepts.	The student is not yet able to justify thinking or show representations and is not yet able to use mathematical language. Logical connections are not yet being made across mathematical concepts.
	In grade nine , the above criteria apply to powers and exponents; rational numbers; squares and square roots, as defined by the curricular document.			

Number Strand Rubric

Making a Professional Judgement based on the Holistic Math Rubric

The math rubrics identify three critical criteria to consider when making a holistic, year-end professional judgement for each student (strategies, application, and expression of understanding). These criteria exist in every outcome within the Number Strand.

The following questions can be used to guide a professional judgement. These three questions can be used throughout the year, on each complex math problem students are invited to explore, and at year-end, when a final decision is made.

Has the student chosen an appropriate strategy?

Did the student apply the strategy appropriately?

Did the student clearly communicate their understanding?