Mathematics Grade 9
Number (N)

Outcome	1 – Little Evidence With help, I understand parts of the simpler ideas and do a few of the simpler skills.	2 – Partial Evidence I understand the simpler ideas and can do the simpler skills. I am working on the more complex ideas and skills.	3 – Sufficient Evidence I understand the more complex ideas and can master the complex skills that are taught in class. **I achieve the outcome.**	4- Extensive Evidence I have a deep understanding of the complex ideas, and I can use the skills I have learned in situations that were not taught in class.
N9.1 **I can demonstrate (concretely, pictorially, and symbolically) understanding of powers with integral bases (excluding base 0) and whole number exponents including:** ○ **representing using powers** ○ **evaluating powers** ○ **powers with an exponent of zero** ○ **solving situational questions.** **[C, CN, PS, R, T]**	• I can **label the parts of a power.**	• I can **evaluate powers with integral bases.**	• I can **explain AND apply** the exponent laws for **multiplication, division and raising a power** to a power, **AND** evaluate the simplification.	• I can **simplify and solve** multiple step problems involving more than one exponent law, and explain my strategy.
	• With help, I can represent exponents using repeated multiplication, and evaluate.	• I can **convert** between repeated multiplication **AND** exponential form, and evaluate.	• I can **evaluate powers** with an exponent of 0	• I can **explain why the value of any power with exponent 0 will equal 1** using exponent laws and repeated multiplication to
	• **With help**, I **can take steps to** evaluate a one-step situational questions involving exponents.	• I **can take steps to** evaluate a one-step situational questions involving exponents.	• I can **solve multi-step situational questions** involving exponents.	• I can solve multi-step situational questions involving exponents **and explain my strategy.**
Comments				

Mathematics Grade 9 Number (N)				
Outcome	**1 – Little Evidence** With help, I understand parts of the simpler ideas and do a few of the simpler skills.	**2 – Partial Evidence** I understand the simpler ideas and can do the simpler skills. I am working on the more complex ideas and skills.	**3 – Sufficient Evidence** I understand the more complex ideas and can master the complex skills that are taught in class. **I achieve the outcome.**	**4- Extensive Evidence** I have a deep understanding of the complex ideas, and I can use the skills I have learned in situations that were not taught in class.
N9.2 **I can demonstrate understanding of rational numbers including:** ○ **comparing and ordering** ○ **relating to other types of numbers** ○ **solving situational questions.** **[C, CN, PS, R, T, V]**	• **With help**, I can compare **AND** order a set of rational numbers from the same number system.	• I can compare **AND** order a set of rational numbers from the same number system.	• I can compare **AND** order a set of rational numbers in different forms, including fractions, decimals and integers.	• I can compare and order a set of rational numbers **and determine a number that fits between two numbers.**
	• **With help**, I can relate a rational number in one form to a rational number in a different form.	• I can relate **some** rational numbers in different forms.	• I can **create a representation depicting how different kinds of rational numbers are related to each other**.	• I can **convert rational numbers** from one form to another (ex. Convert decimals to fractions.)
	• **With help,** I can solve a single-step situational question involving operations with rational numbers	• I can solve **a single-step situational question** involving operations with rational numbers.	• I can **solve situational questions** involving operations with rational numbers.	• I can solve **multi-step situational questions** involving operations with rational numbers and explain my strategy.
Comments				

Mathematics Grade 9 Number (N)				
Outcome	**1 – Little Evidence** With help, I understand parts of the simpler ideas and do a few of the simpler skills.	**2 – Partial Evidence** I understand the simpler ideas and can do the simpler skills. I am working on the more complex ideas and skills.	**3 – Sufficient Evidence** I understand the more complex ideas and can master the complex skills that are taught in class**. I achieve the outcome.**	**4- Extensive Evidence** I have a deep understanding of the complex ideas, and I can use the skills I have learned in situations that were not taught in class.
N9.3 **Extend understanding of square roots to include the square root of positive rational numbers.** **[CN, ME, R, T, V]**	• I can determine the square root of a rational number that is a whole number and a perfect square **without the use of technology**.	• I can determine the **square root of a rational number that is a perfect square without the use of technology**.	• I can determine the **approximate** square root of a rational number that is a whole number but not a perfect square, **without the use of technology.**	• I can determine the **approximate** square root of a rational number that **is not a whole number or a perfect square**, **without the use of technology.**
	• I can explain, either in words or pictorially, **how a given square and its root are related.**	• Given a **whole number, I can determine the rational number that is its root**.	• Given **a rational number that is not a whole number, I can determine the rational number that is its root**.	• Given a rational number, I can determine the rational number that is its root, **without the use of technology.**
Comments:				

Mathematics Grade 9 Patterns (P)				
Outcome	**1 – Little Evidence** With help, I understand parts of the simpler ideas and do a few of the simpler skills.	**2 – Partial Evidence** I understand the simpler ideas and can do the simpler skills. I am working on the more complex ideas and skills.	**3 – Sufficient Evidence** I understand the more complex ideas and can master the complex skills that are taught in class. **I achieve the outcome.**	**4- Extensive Evidence** I have a deep understanding of the complex ideas, and I can use the skills I have learned in situations that were not taught in class.
P9.1 **I can demonstrate understanding of linear relations including:** ○ **graphing** ○ **analyzing** ○ **interpolating and extrapolating** ○ **solving situational questions.** **[C, CN, PS, R, T, V]**	• I can **identify graphs** which represent linear relations.	• I can sketch graphs for given **linear relations,** without the use of technology.	• I can **sketch graphs** for given linear relations, including horizontal **AND** vertical lines, **without the use of technology.**	• I can **formulate a problem** based on a given graph.
	• **With help**, I can interpolate **OR** extrapolate a value for either variable in a linear relation in a graph.	• I can interpolate **OR** extrapolate a value for either variable in a linear relation in a graph.	• I can interpolate **AND** extrapolate a value for either variable in a linear relation in a graph.	• I can **formulate situational questions** that would result in the need for interpolation **and/or** extrapolation.
	• **With help**, I can verify an interpolated **OR** extrapolated value from a graph by using substitution in the related linear relation.	• I can verify an interpolated **OR** extrapolated value from a graph by using substitution in the related linear relation.	• I can **verify** an interpolated **AND** extrapolated value from a graph by using substitution in the related linear relation.	• I can **verify** an interpolated **AND** extrapolated value from a graph by using substitution in a linear relation **that I created**.
Comments				

Mathematics Grade 9
Patterns (P)

Outcome	1 – Little Evidence With help, I understand parts of the simpler ideas and do a few of the simpler skills.	2 – Partial Evidence I understand the simpler ideas and can do the simpler skills. I am working on the more complex ideas and skills.	3 – Sufficient Evidence I understand the more complex ideas and can master the complex skills that are taught in class. **I achieve the outcome.**	4- Extensive Evidence I have a deep understanding of the complex ideas, and I can use the skills I have learned in situations that were not taught in class.
P9.2 **I can model and solve situational questions using linear equations of the form:** ○ **ax = b** ○ **x/a = b, a ≠ 0** ○ **ax + b = c** ○ **x/a + b = c, a ≠ 0** ○ **ax = b + cx** ○ **a(x + b) = c** ○ **ax + b = cx + d** ○ **a(bx + c) = d(ex + f)** ○ **a/x = b, x ≠ 0** **where a, b, c, d, e, and f are rational numbers. [C, CN, PS, V]**	• I can **model and solve problems** using linear equations of the form ○ ax=b ○ $\frac{x}{a} = b$ ○ $ax + b = c$ ○ $\frac{x}{a} + b = c$ ○ $a(x + b) = c$	• I can **model and solve problems** using linear equations of the form: ○ ax = b ○ x/a = b, a ≠ 0 ○ ax + b = c ○ x/a + b = c, a ≠ 0 ○ ax = b + cx ○ a(x + b) = c ○ ax + b = cx + d ○ a(bx + c) = d(ex + f) ○ a/x = b, x ≠ 0	• I can **model and solve situational questions** using linear equations of the form: ○ ax = b ○ x/a = b, a ≠ 0 ○ ax + b = c ○ x/a + b = c, a ≠ 0 ○ ax = b + cx ○ a(x + b) = c ○ ax + b = cx + d ○ a(bx + c) = d(ex + f) ○ a/x = b, x ≠ 0	• I can **create a model and solve a complex word problem** using linear equations**.**
	• **With help**, I can write a linear equation representing the pattern in a given table of values and verify the equation by substituting values from the table.	• I can **write a linear equation** representing the pattern in a given table of values **AND** verify the equation by substituting values from the table.	• I can **write a linear equation to represent a particular situation.**	• I can use **an equation to model and solve a complex problem**.
	• **With help**, I can verify, by substituting, whether or not a given rational number is a solution to a given linear equation.	• I can **verify**, by substituting, whether or not a given rational number is a solution to a given linear equation.	• I can **identify and explain the errors** of an incorrect solution to a linear equation.	• I can **identify and explain** the errors of an incorrect solution to a **complex linear equation.**
Comments :				

Mathematics Grade 9 Patterns (P)				
Outcome	**1 – Little Evidence** With help, I understand parts of the simpler ideas and do a few of the simpler skills.	**2 – Partial Evidence** I understand the simpler ideas and can do the simpler skills. I am working on the more complex ideas and skills.	**3 – Sufficient Evidence** I understand the more complex ideas and can master the complex skills that are taught in class. **I achieve the outcome.**	**4- Extensive Evidence** I have a deep understanding of the complex ideas, and I can use the skills I have learned in situations that were not taught in class.
P9.3 **I can demonstrate understanding of single variable linear inequalities with rational coefficients including:** ○ **solving inequalities** ○ **verifying** ○ **comparing** ○ **graphing.** **[C, CN, PS, R, V]**	• I can solve **one-step single-variable linear** inequalities and graph the solution. • I recognize the following symbols and know what they mean >,<,≥,≤	• I can solve **multi-step single-variable linear inequalities and graph the solution.** • I can **verify** whether or not a given rational number is part of the solution set for a linear inequality.	• I can **solve a situational question** involving a single variable linear **inequality** and graph the solution. • I can **explain why there is more than one solution to a linear inequality.**	• I can **create a situational question** involving a multi-step single variable linear inequality and graph the solution. • **I can analyze a given solution and explain any error.**
Comments				

Mathematics Grade 9
Patterns (P)

Outcome		1 – Little Evidence With help, I understand parts of the simpler ideas and do a few of the simpler skills.	2 – Partial Evidence I understand the simpler ideas and can do the simpler skills. I am working on the more complex ideas and skills.	3 – Sufficient Evidence I understand the more complex ideas and can master the complex skills that are taught in class. **I achieve the outcome.**	4- Extensive Evidence I have a deep understanding of the complex ideas, and I can use the skills I have learned in situations that were not taught in class.
P9.4 **I can demonstrate understanding of polynomials (limited to polynomials of degree less than or equal to 2) including:** ○ **modeling** ○ **generalizing strategies for addition, subtraction, multiplication, and division analyzing** ○ **relating to context** ○ **comparing for equivalency.** **[C, CN, R, V]**	**Modelling**	• I can represent polynomials concretely **OR** pictorially. • **With help,** I can identify the variables, degree, number of terms and coefficients, including the constant term, of a given simplified polynomial expression and explain the role or significance of each.	• I can represent polynomials concretely **OR** pictorially **AND** describe how the concrete or pictorial model reflects the symbolic form. • I can **identify the variables, degree, number of terms and coefficients**, including the constant term, of a given simplified polynomial expression and explain the role or significance of each.	• I can create a model (concretely **OR** pictorially) for a polynomial **AND** describe the relationship between x and x^2. • I can **write a polynomial** for a given concrete or pictorial representation.	• I can create a model (concretely or pictorially) for a polynomial that includes a **cubed variable.** • • I can **write a polynomial for a given situation**.
	Generalizing and Comparing	• I can **recognize** equivalent forms of a polynomial expression.	• I can **write equivalent forms of a polynomial expression.**	• I can write **equivalent forms of a polynomial expression** and **justify the equivalence.**	• I can write **equivalent forms of a complex polynomial expression** and justify the equivalence.
	Operations	• I can **identify like terms** and I can explain why terms with different variable exponents cannot be added or subtracted.	• I can **simplify polynomial expressions.**	• I can **verify whether or not the simplification of the addition or subtraction and multiplication or division of two polynomials is correct and explain my reasoning.**	• I **can create and solve a problem with one or more operations involving polynomials.**
Comments:					

Mathematics Grade 9 Shape and Space (SS)				
Outcome	**1 – Little Evidence** With help, I understand parts of the simpler ideas and do a few of the simpler skills.	**2 – Partial Evidence** I understand the simpler ideas and can do the simpler skills. I am working on the more complex ideas and skills.	**3 – Sufficient Evidence** I understand the more complex ideas and can master the complex skills that are taught in class. **I achieve the outcome.**	**4- Extensive Evidence** I have a deep understanding of the complex ideas, and I can use the skills I have learned in situations that were not taught in class.
SS9.1 **I can demonstrate understanding of circle properties including:** ○ **perpendicular line segments from the centre of a circle to a chord bisect the chord** ○ **inscribed angles subtended by the same arc have the same measure** ○ **the measure of a central angle is twice the measure of an inscribed angle subtending the same arc** ○ **tangents to a circle are perpendicular to the radius ending at the point of tangency.** **[C, CN, PS, R, T, V]**	• **With help**, I can identify perpendicular line segments from the centre of a circle through a chord.	• I can **identify perpendicular line segments** from the centre of a circle through a chord.	• I can **explain what a perpendicular bisector** is in relation to a radius of a circle and a chord.	• I can **use perpendicular bisectors and radii to determine measurements of line segments** within a circle.
	• I can identify two inscribed angles subtended by the same arc **AND** an inscribed angle and a central angle subtended by the same arc.	• I can **determine the measure** of an inscribed angle given the measure of another inscribed angle or central angle on the same arc.	• Given two inscribed angles subtended by the same arc, **AND** an inscribed angle and a central angle that are subtended by the same arc **,** I can **determine the measure of those angles in comparison to each other.**	• Given two inscribed angles subtended by the same arc, **AND** an inscribed angle and a central angle that are subtended by the same arc**,** I can **determine the measure of those angles in comparison to each other, and justify my response.**
	• **With help**, I can identify a point of tangency and a line of tangency.	• I **can identify a point of tangency and a line of tangency.**	• I can identify a point of tangency and **describe the relationship between a line of tangency and a radius.**	• I can **construct a tangent to a circle** using my knowledge of tangents and circles.

Mathematics Grade 9 Shape and Space (SS)				
Outcome	**1 – Little Evidence** With help, I understand parts of the simpler ideas and do a few of the simpler skills.	**2 – Partial Evidence** I understand the simpler ideas and can do the simpler skills. I am working on the more complex ideas and skills.	**3 – Sufficient Evidence** I understand the more complex ideas and can master the complex skills that are taught in class. **I achieve the outcome.**	**4- Extensive Evidence** I have a deep understanding of the complex ideas, and I can use the skills I have learned in situations that were not taught in class.
	• With help, I can solve situational questions and problems involving **ONE** circle property, including: ○ perpendicular line segments from the centre bisecting a chord ○ inscribed angles ○ central angles ○ **OR** ○ tangents.	• I can solve situational questions and problems involving **ONE** circle property, including: ○ perpendicular line segments from the centre bisecting a chord ○ inscribed angles ○ central angles **OR** ○ tangents.	• I can **solve situational questions and problems** involving **more than one** circle property, including: ○ perpendicular line segments from the centre bisecting a chord ○ inscribed angles ○ central angles **OR** ○ tangents.	• I can solve situational questions and problems involving **ALL** circle properties, including: ○ perpendicular line segments from the centre bisecting a chord ○ inscribed angles ○ central angles **AND** ○ tangents **AND** explain my reasoning.
Comments				

Mathematics Grade 9 Shape and Space (SS)				
Outcome	**1 – Little Evidence** With help, I understand parts of the simpler ideas and do a few of the simpler skills.	**2 – Partial Evidence** I understand the simpler ideas and can do the simpler skills. I am working on the more complex ideas and skills.	**3 – Sufficient Evidence** I understand the more complex ideas and can master the complex skills that are taught in class. **I achieve the outcome.**	**4- Extensive Evidence** I have a deep understanding of the complex ideas, and I can use the skills I have learned in situations that were not taught in class.
SS9.2 **I can extend understanding of area to surface area of right rectangular prisms, right cylinders, right triangular prisms, to composite 3-D objects. [CN, PS, R, V]**	• **I can determine the area of simple 2-D shapes.**	• I can **determine the surface area of simple 3-D objects** (right rectangular prisms, right cylinders, and right triangular prisms).	• I can **determine the surface area of composite 3-D objects.**	• I can determine the surface area of composite 3-D objects, **including those with cut-outs and/or more complex shapes** (ie: hexagons).
	• I can solve situational questions involving simple **2-D shapes.**	• I can solve situational questions involving **simple 3-D objects.**	• I can **solve situational questions** involving the surface area of composite 3-D objects.	• I can solve situational questions involving **more complex composite 3-D objects**.
Comments				

Mathematics Grade 9
Shape and Space (SS)

Outcome		1 – Little Evidence With help, I understand parts of the simpler ideas and do a few of the simpler skills.	2 – Partial Evidence I understand the simpler ideas and can do the simpler skills. I am working on the more complex ideas and skills.	3 – Sufficient Evidence I understand the more complex ideas and can master the complex skills that are taught in class. **I achieve the outcome.**	4- Extensive Evidence I have a deep understanding of the complex ideas, and I can use the skills I have learned in situations that were not taught in class.
SS9.3 **I can demonstrate understanding of similarity of 2-D shapes.** **[C, CN, PS, R, V]**	**Similar polygons**	• I can explain the difference between similarity and equality. • **With help**, I can draw a polygon similar to a given polygon. • **With help**, I can **take steps to solve a basic situational question** involving the similarity of polygons	• I can identify whether or not two polygons are similar. • I can draw a polygon similar to a given polygon. • I can **take steps to solve a basic situational question** involving the similarity of polygons.	• I can prove whether or not two polygons are similar. • I can draw a polygon similar to a given polygon **and explain the strategy I used.** • I can **solve situational questions** involving the similarity of polygons.	• I can identify and prove whether two polygons that are reflected, translated, and transformed in the Cartesian plane are similar. • I can create two similar polygons and explain the strategy I used. • I can solve a situational problem involving the use of **surface area as well as similarity.**
	Scale diagrams	• **I can identify and describe situations relevant to me**, my family, or my community that involve scale diagrams, and explain the meaning of the scale factor involved. • **With help**, I can confirm whether or not a given diagram is a scale diagram of a 2-D shape. • **With help**, I can solve simple situational questions involving scale diagrams **OR** scale factors.	• *I can **determine scale factor for a given 2-D shape** and an enlargement or reduction of the shape. • I can **confirm whether or not a given diagram is a scale diagram of a 2-D shape**. • I can **solve situational questions** involving scale diagrams **OR** scale factors.	• *I can **draw a diagram** to scale that represents an enlargement or reduction of a given 2-D shape **and explain the strategy used.** • I can confirm whether or not a given diagram is a scale diagram of a 2-D shape and**, if it is, identify the scale factor for the diagram.** • I can **solve situational questions** involving scale diagrams **AND** scale factors.	• I **can create a scale diagram of a given space, and choose an appropriate scale factor for this diagram**. • I can confirm whether or not a given diagram is a scale diagram of a 2-D shape, and if it is, **identify the fractional scale factor for the diagram**. • I can solve situational questions **involving fractional scale factors without the use of technology.**

Mathematics Grade 9 Shape and Space (SS)					
Outcome		**1 – Little Evidence** With help, I understand parts of the simpler ideas and do a few of the simpler skills.	**2 – Partial Evidence** I understand the simpler ideas and can do the simpler skills. I am working on the more complex ideas and skills.	**3 – Sufficient Evidence** I understand the more complex ideas and can master the complex skills that are taught in class. **I achieve the outcome.**	**4- Extensive Evidence** I have a deep understanding of the complex ideas, and I can use the skills I have learned in situations that were not taught in class.
Comments:					
SS9.4 Demonstrate understanding of line and rotation symmetry. [C, CN, PS, V]	**Line Symmetry**	• **With help**, I can determine if a given 2-D shape or design has line symmetry. • **With help**, I can complete a simple 2-D shape or design given part of a shape or design and the line/lines of symmetry. • **With help**, I can identify a line of symmetry **in a simple shape.** • **With help**, determine whether two 2-D shapes on the Cartesian plane are related by line symmetry.	• I can **determine if a given 2-D shape or design has line symmetry.** • I can complete a **simple** 2-D shape or design given part of a shape or design and the line/lines of symmetry. • I **can identify a line of symmetry in a simple shape**. • **I can determine whether two 2-D shapes on the Cartesian plane are related by line symmetry.**	• I can **classify 2-D shapes and designs according to the number of lines of symmetry**. • I can **complete a complex 2-D shape or design given part of a shape or design and the line/lines of symmetry**. • **I can identify a line of symmetry in a tessellation**. • I can determine whether two 2-D shapes on the Cartesian plane are related by line symmetry **and explain.**	• I can create a design that **shows a specific number of lines of symmetry** and explain the lines of symmetry used. • I can **create a design** given part of the design and the coordinates to create the lines of symmetry to be used. • I can identify a line of symmetry in a **complex tessellation involving small differences.** • I can determine whether two **complex shapes on the Cartesian plane** are related by line symmetry using a line other than the x and y axis as the line of reflection and explain.

Mathematics Grade 9 Shape and Space (SS)					
Outcome		**1 – Little Evidence** With help, I understand parts of the simpler ideas and do a few of the simpler skills.	**2 – Partial Evidence** I understand the simpler ideas and can do the simpler skills. I am working on the more complex ideas and skills.	**3 – Sufficient Evidence** I understand the more complex ideas and can master the complex skills that are taught in class**. I achieve the outcome.**	**4- Extensive Evidence** I have a deep understanding of the complex ideas, and I can use the skills I have learned in situations that were not taught in class.
	Rotation Symmetry	• **With help**, I can determine if a given 2-shape or design has rotation symmetry. • **With help**, I can determine whether two 2-D shapes on the Cartesian plane are related by rotation symmetry.	• I can determine **if a given 2-D shape or design has rotation symmetry.** • I can **determine whether two 2-D shapes on the Cartesian plane are related by rotation symmetry.**	• I can determine if a given 2-D shape or design has rotation symmetry and **I can identify the order and angle of rotation in a 2-D shape or design.** • I can determine whether two 2-D shapes on the Cartesian plane are related by rotation symmetry **and explain.**	• I can create a design that shows rotation symmetry and that shows a specific order and angle of rotation. • I can **create a design** on the Cartesian plane given a simple 2-D shape and the order of rotation needed.
Comments:					

Mathematics Grade 9 Statistics and Probability (SP)				
Outcome	**1 – Little Evidence** With help, I understand parts of the simpler ideas and do a few of the simpler skills.	**2 – Partial Evidence** I understand the simpler ideas and can do the simpler skills. I am working on the more complex ideas and skills.	**3 – Sufficient Evidence** I understand the more complex ideas and can master the complex skills that are taught in class. **I achieve the outcome.**	**4- Extensive Evidence** I have a deep understanding of the complex ideas, and I can use the skills I have learned in situations that were not taught in class.
SP9.1 **Demonstrate understanding of the effect of:** ○ **bias** ○ **use of language** ○ **ethics** ○ **cost** ○ **time and timing** ○ **privacy** ○ **cultural sensitivity and** ○ **population or sample** **on data collection. [C, PS, R, T]**	• **With help**, I can define various factors that influence the collection of data, including bias, use of language, ethics, cost, time and timing, privacy and cultural sensitivity. • **With help**, I can explain the difference between a population and a sample in terms of data collection.	• I can define various factors that influence the collection of data, including bias, use of language, ethics, cost, time and timing, privacy and cultural sensitivity. • I can explain the difference between a population and a sample in terms of data collection.	• I can demonstrate understanding of factors that influence data collection, including bias, use of language, ethics, cost, time and timing, privacy, **AND** cultural sensitivity. • I can **distinguish between a population and a sample, AND** determine which should be used in different situations.	• I can write survey questions that are free of influencing factors, and use these questions to collect data for analysis. • I can **identify and critique given examples** in which a generalization from a sample of a population may or may not be valid for the population.
Comments				

Mathematics Grade 9 Statistics and Probability (SP)				
Outcome	**1 – Little Evidence** With help, I understand parts of the simpler ideas and do a few of the simpler skills.	**2 – Partial Evidence** I understand the simpler ideas and can do the simpler skills. I am working on the more complex ideas and skills.	**3 – Sufficient Evidence** I understand the more complex ideas and can master the complex skills that are taught in class. **I achieve the outcome.**	**4- Extensive Evidence** I have a deep understanding of the complex ideas, and I can use the skills I have learned in situations that were not taught in class.
SP9.2 **Demonstrate an understanding of the collection, display, and analysis of data through a project. [C, PS, R, T, V]**	• **With help**, I can devise a project plan that involves the collection, display **OR** analysis of data that is relevant to myself, my family or my community. • This project will involve **a few of**: ○ formulating a question ○ choosing a data collection method ○ electing a population or sample. ○ collecting and displaying the data ○ drawing conclusions to answer the question.	• I can devise a project plan that involves the collection, display **OR** analysis of data that is relevant to my myself, my family or my community. • This project will involve **many of**: ○ formulating a question ○ choosing a data collection method ○ electing a population or sample. ○ collecting and displaying the data ○ drawing conclusions to answer the question.	• I can devise a project plan that involves the collection, display **AND** analysis of data that is relevant to myself, my family, or my community. • This project will involve **all of**: ○ formulating a question ○ choosing a data collection method ○ electing a population or sample. ○ collecting and displaying the data ○ drawing conclusions to answer the question.	• I can devise a project plan that involves the collection, display, **AND** analysis of data that is relevant **to a large sample or a population of citizens.** • This project will involve **detailed presentation of**: ○ formulating a question ○ choosing a data collection method ○ electing a population or sample. ○ collecting and displaying the data ○ drawing conclusions to answer the question
Comments				

Mathematics Grade 9 Statistics and Probability (SP)				
Outcome	**1 – Little Evidence** With help, I understand parts of the simpler ideas and do a few of the simpler skills.	**2 – Partial Evidence** I understand the simpler ideas and can do the simpler skills. I am working on the more complex ideas and skills.	**3 – Sufficient Evidence** I understand the more complex ideas and can master the complex skills that are taught in class. **I achieve the outcome.**	**4- Extensive Evidence** I have a deep understanding of the complex ideas, and I can use the skills I have learned in situations that were not taught in class.
SP9.3 **Demonstrate an understanding of the role of probability in society.** **[C, CN, R, T]**	• With help, I can identify an example of how probability can impact and influence one's self, family, community and the environment. • **With help**, I can show an example of experimental **OR** theoretical probability.	• I can **identify** an example of how probability can impact and influence one's self, family, community and the environment. • I can define and show an example of experimental probability **OR** theoretical probability.	• I can **several** examples of how probability can impact and influence one's self, family, community and the environment. • I can define and show an example of experimental probability **AND** theoretical probability.	• I can **explain** how probability can impact and influence society in general and **how probability can support opposing positions.** • I can **create examples** which illustrate the difference between theoretical and experimental probability and explain how decisions based on probability may be made using a combination of both.
Comments				

Mathematics Grade 9 Statistics and Probability (SP)				
Outcome	**1 – Little Evidence** With help, I understand parts of the simpler ideas and do a few of the simpler skills.	**2 – Partial Evidence** I understand the simpler ideas and can do the simpler skills. I am working on the more complex ideas and skills.	**3 – Sufficient Evidence** I understand the more complex ideas and can master the complex skills that are taught in class. **I achieve the outcome.**	**4- Extensive Evidence** I have a deep understanding of the complex ideas, and I can use the skills I have learned in situations that were not taught in class.
SP9.4 **Research and present how First Nations and Métis peoples, past and present, envision, represent, and make use of probability and statistics.**	**With help,** I can gather **OR** document information regarding the use of or significance of probability and statistics for one group of First Nation or Metis peoples, using a **few** sources.	I can gather **OR** document information regarding the use of or significance of probability and statistics for one group of First Nation or Metis peoples, using a **few** sources.	I can gather **AND** document information regarding the significance of and use of probability and statistics for **at least one** First Nation or Metis peoples, using **a variety of sources.**	I can gather **AND** document information to **compare** the significance and use of probability and statistics among a variety of First Nations and Metis peoples, using a variety of sources, **including elders and traditional knowledge keepers.**
Comments:				