Mathematics Grade 9
Statistics and Probability (SP)

Outcome	1 - Beginning The student is having difficulty demonstrating an understanding of the concept.	2 – Approaching The student is developing an understanding of the concept.	3 – Meeting The student consistently demonstrates an understanding of the concept or has achieved the concept.	4- Exemplary The student independently demonstrates an in-depth understanding of the concept, and consistently applies this knowledge to new situations.
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				

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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
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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.
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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				