ASSESSMENT | # Data Analysis Investigation Rubric | **BLM A-29**

Performance Indicators

Level 1: Achievement falls much below provincial standards.

Level 2: Achievement approaches provincial standards.

Level 3: Achievement meets provincial standards.

Level 4: Achievement surpasses provincial standards.

Criteria	Level 1	Level 2	Level 3	Level 4
Initiating and Planning • states hypothesis related to the data • lists questions to guide inquiry • selects effective tools and strategies	Student formulates hypotheses and/or scientific questions to guide inquiry or research with limited effectiveness. Student selects appropriate tools and strategies with limited effectiveness.	Student formulates hypotheses and/or scientific questions to guide inquiry or research with some effectiveness. Student selects appropriate tools and strategies with some effectiveness.	Student formulates hypotheses and/or scientific questions to guide inquiry or research with considerable effectiveness. Student selects appropriate tools and strategies with considerable effectiveness.	Student formulates hypotheses and/or scientific questions to guide inquiry or research with a high degree of effectiveness. Student selects appropriate tools and strategies with a high degree of effectiveness.
Performing and Recording • identifies dependent and dependent variables • organizes and displays data for analysis • modifies plans as preliminary analysis requires	Student conducts inquiries, adapting or extending procedures as required with limited effectiveness. Student gathers, organizes, and records data with limited effectiveness.	Student conducts inquiries, adapting or extending procedures as required with some effectiveness. Student gathers, organizes, and records data with some effectiveness.	Student conducts inquiries, adapting or extending procedures as required with considerable effectiveness. Student gathers, organizes, and records data with considerable effectiveness.	Student conducts inquiries, adapting or extending procedures as required with a high degree of effectiveness. Student gathers, organizes, and records data with a high degree of effectiveness.

ASSESSMENT

Data Analysis Investigation Rubric
(continued)

BLM A-29

Criteria	Level 1	Level 2	Level 3	Level 4
Analyzing and Interpreting • relates results of analysis to initial hypothesis • analyzes possible sources of error • draws and justifies conclusions	Student analyzes and interprets data to determine whether the evidence supports the initial hypothesis with limited accuracy.	Student analyzes and interprets data to determine whether the evidence supports the initial hypothesis with some accuracy.	Student analyzes and interprets data to determine whether the evidence supports the initial hypothesis with considerable accuracy.	Student analyzes and interprets data to determine whether the evidence supports the initial hypothesis with a high degree of accuracy.
	Student identifies possible sources of error, bias, or uncertainty with limited accuracy.	Student identifies possible sources of error, bias, or uncertainty with some accuracy.	Student identifies possible sources of error, bias, or uncertainty with considerable accuracy.	Student identifies possible sources of error, bias, or uncertainty with a high degree of accuracy.
	Student draws conclusions based on inquiry results and justifies conclusions with limited effectiveness.	Student draws conclusions based on inquiry results and justifies conclusions with some effectiveness.	Student draws conclusions based on inquiry results and justifies conclusions with considerable effectiveness.	Student draws conclusions based on inquiry results and justifies conclusions with a high degree of effectiveness.

Data Analysis Investigation Rubric
(continued)

Criteria	Level 1	Level 2	Level 3	Level 4
Communication • communicates hypothesis, results, analysis, and conclusions • uses language and scientific conventions effectively • includes appropriate precision and accuracy in results	Student communicates procedures, results, and conclusions using an appropriate format with limited effectiveness. Student uses appropriate numeric, symbolic, and graphic modes of representation, and appropriate units of measurement with limited effectiveness. Student expresses the results of calculations with limited accuracy.	Student communicates procedures, results, and conclusions using an appropriate format with some effectiveness. Student uses appropriate numeric, symbolic, and graphic modes of representation, and appropriate units of measurement with some effectiveness. Student expresses the results of calculations with some accuracy.	Student communicates procedures, results, and conclusions using an appropriate format with considerable effectiveness. Student uses appropriate numeric, symbolic, and graphic modes of representation, and appropriate units of measurement with considerable effectiveness. Student expresses the results of calculations with considerable accuracy.	Student communicates procedures, results, and conclusions using an appropriate format with a high degree of effectiveness. Student uses appropriate numeric, symbolic, and graphic modes of representation, and appropriate units of measurement with a high degree of effectiveness. Student expresses the results of calculations with a high degree of accuracy.