

Judge's Rubric
Anglophone School District North - Science Fair

Part A - Scientific Thought - 50%		
Experiment	Innovation	Case Study
Undertake an investigation to test a scientific hypothesis by the experimental method. At least one independent variable is manipulated; other variables are controlled	Develop and evaluate new devices, models, theorems, physical theories, techniques, or methods in technology, engineering, computing, natural sciences, or social science.	Analysis of, and possibly collections of, data using accepted methodologies from the natural, social, biological, or health sciences. Includes studies involving human subjects. biology field studies, data mining, observation and pattern recognition in physical and/or socio-behavioral data
Level 1 (Low)		
Replicate a known experiment to confirm previous findings	Build a model or device or device to duplicate existing technology or to demonstrate a well-known physical theory or social/behavioral intervention.	Existing published material is presented, unaccompanied by any analysis.
Level 2 (Fair)		
Extend a known experiment with modest improvements to the procedures, data gathering and possible applications	Improve or demonstrate new applications for existing technological systems, social or behavioral interventions, existing physical theories or equipment, and justify them.	Existing published material is presented, accompanied by some modest analysis and/or a rudimentary study is undertaken that yields limited data that cannot support an analysis leading to meaningful results.
Level 3 (Good)		
Devise and carry out an original experiment. Identify the significant variables and attempt to control them. Analyse the results using appropriate arithmetic, graphical or statistical methods.	Design and build innovative technology; or provide adaptations to existing technology or to social or behavioral interventions; extend or create new physical theory. Human benefit, advancement of knowledge, and/or economic applications should be evident	The study is based on systematic observations and a literature search. Quantitative studies should include appropriate analysis of some significant variable(s) using arithmetic, statistical, or graphical methods. Qualitative and/or mixed methods studies should include a detailed description of the procedures and/or techniques applied to gather and/or analyse the data (e.g. interviewing, observational fieldwork, constant comparative method, content analysis)
Level 4 (Excellent)		
Devise and carry out original experimental research in which most significant variables are identified and controlled. The data analysis is thorough and complete	Integrate several technologies, inventions or design and construct an innovative application that will have human and/or commercial benefit.	The study correlates information from a variety of peer-reviewed publications and from systematic observations, and reveals significant new information, or original solutions to problems. Same criteria for analysis of significant variables and/or description of procedures/techniques as for Level 3
Judging Notes		

Part B - Original Creativity - 25%

Level 1 (Low)	Level 2 (Fair)	Level 3 (Good)	Level 4 (Excellent)
The Project Design is simple with little evidence of student imagination. It can be found in books, magazines, or the Internet	The project design is simple with some evidence of student imagination. It uses common resources or equipment. The topic is current or common one.	This imaginative project makes creative use of available resources. It is well thought out, and some aspects are above average	This highly original project demonstrates a novel approach. It shows resourcefulness and creativity in the design, use of equipment, construction and/or the analysis.

Judging Notes

Part C - Oral Presentation - 15%

Level 1 (Low)	Level 2 (Fair)	Level 3 (Good)	Level 4 (Excellent)
Student gives a rehearsed presentation but cannot elaborate much on questions related to the topic.	Student gives a somewhat clear/logical presentation about the topic. Student is able to answer rudimentary questions about the topic	Student gives a clear , logical, enthusiastic presentation about the topic. Student is able to answer general questions related to the topic	Student gives a clear, logical, enthusiastic presentation about the topics. Student is able to respond to high level thinking questions related to the topic

Part D - Visual Display - 10%

Level 1 (Low)	Level 2 (Fair)	Level 3 (Good)	Level 4 (Excellent)
A standard scientific method is displayed but may not include all key science skills and/or a physical demonstration is the focus	All elements of the scientific method related to the project type are present but display is convoluted. Physical demonstrations distract from key findings	The layout of the display flows in a logical manner. The exhibit is attractive and self-explanatory	The layout of the display flows in a logical manner. The exhibit is attractive and self-explanatory. The most relevant information is what is keyed on.

Judging Notes

Feedback for the Finalist(s)

Strengths

Recommendations