

Project Judging Rubric

Virtual Canada-Wide Science Fair



Youth Science Canada
Sciences jeunesse Canada

Use this rubric to assign a Level (4, 3, 2, or 1) against the criteria for the project. In addition to the Level, please enter a single letter rating: **H** (High), **M** (Medium), or **L** (Low) that reflects the quality and strength of the project relative to other projects you have assigned the same level.

SCIENTIFIC THOUGHT	
H/M/L assessment may attend to the following criteria: project structure; appropriateness of research methodology; understanding; correspondence of the content to the topic, goals and objectives; technical skills; thoroughness and effort; accordance of conclusions/evaluations to results obtained; honest evaluation of academic or practical value.	
DISCOVERY	INNOVATION
Devise and carry out experimental research or synthesize and analyze data from a variety of sources.	Develop and evaluate new devices, models, theorems, physical theories, techniques, or methods.
LEVEL 4 (most impressive)	
Devise and carry out original experimental research in which most significant variables are identified and controlled or synthesize data from a variety of significant sources to develop new insight and draw new conclusions. The data analysis is thorough and complete. Conclusions are clearly described/presented and connected back to the data that justifies them. Statements about the significance of the work (including human benefit/advancement of knowledge/economic applications) are supported by the information presented and show awareness of context. Suggestions for future work are realistic and justified by the results of the current project.	Integrate several technologies, inventions, social/behavioural interventions or design and construct an innovative application that will have human and/or commercial benefit. Performance of the prototype or method is evaluated completely and realistically. Honest comparisons are made to alternative or previous solutions, where possible. Statements about the significance of the work (including human benefit/ advancement of knowledge/economic applications) are supported by the information presented and show awareness of context. Suggestions for future developments/versions are realistic and justified by the outcomes of the current project.
LEVEL 3	
Devise and carry out an original experiment. Identify the significant variables and attempt to control them or synthesize data from a variety of sources to strengthen or extend existing conclusions. 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 behavioural interventions; extend or create new physical theory. Human benefit, advancement of knowledge, and/or economic applications should be evident.
LEVEL 2	
Extend a known experiment with modest improvements to the procedures, data gathering and possible applications or synthesize data from a variety of sources to confirm existing conclusions.	Improve or demonstrate new applications for existing technological systems, social or behavioural interventions, existing physical theories or equipment, and justify them.
LEVEL 1 (least impressive)	
Replicate a known experiment to confirm previous findings or collate data from a variety of existing sources without further analysis.	Build a model or device to duplicate existing technology or to demonstrate a well-known physical theory or social/behavioural intervention.

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

COMMUNICATION			
The level is based on six elements: ① project report, ② summary, ③ video, ④ interview, ⑤ online project, and ⑥ sample logbook pages.			
LEVEL 4 (strongest)	LEVEL 3	LEVEL 2	LEVEL 1 (weakest)
All six elements are complete and exceed reasonable expectations of a student at this age/grade. The visual displays are logical and self-explanatory, and the exhibit is attractive and well-presented. The project report and logbook are informative, clearly written, and the references extend beyond web-based articles. The oral presentation is clear, logical, and engaging. In a group project, both members contributed equitably and effectively to the presentation.	All six elements are complete and demonstrate attention to detail and substance. The communication components are each well thought out and executed, although some further explanation may be required. In a pair project, both members made an equitable contribution to the presentation.	Some of the six elements are simple, unsubstantial or incomplete, but there is evidence of student attention to communication. A number of pieces may require clarification or explanation. In a pair project, one member may have made a stronger contribution to the presentation.	Most or all of the six elements are simple, unsubstantial or incomplete. There is little evidence of attention to effective communication. Most pieces require clarification or further explanation. In a pair project, one member may have dominated the presentation.