

IRIC 2020 Project Evaluation Rubric

This rubric applies to all project categories and age groups.

There will be three parts to judging; for each part, please select appropriate level for the project (1-4) and give a judge’s personal rating (1-10). A project’s final grade for each part is calculated with [Project level] * [Judge’s rating].

Part A: Scientific Thought (50%)

The evaluation of scientific thought applies differently to projects of different genres. To assess scientific thought, we ask you to label the student’s project into one of the three following categories: Experiment, Innovation, or Study.

Project level:

Judge’s rating:

	4	3	2	1
Scientific Thought: Experiment	Elaboration of an original experiment with own question and hypothesis. • Most variables are identified and controlled. • Data well-presented and analyzed.	Elaboration of an original experiment with own question and hypothesis. • Some variables are identified and controlled. • Data presented in simple graph.	Modification of the question hypothesis, variables, and procedures of a known experiment.	Duplication of a known experiment to confirm a hypothesis; totally predictable.

	4	3	2	1
Scientific Thought: Innovation	Integrate several technologies or inventions or design and construct an innovative application with human and/or commercial benefit.	Design and build innovative technology. Benefits to humans should be evident.	Improve or demonstrate new applications for existing technologies, and justify them.	Build a model or device that duplicates existing technology.

	4	3	2	1
Scientific Thought: Study	Study correlates information from a variety of peer reviewed publications and reveals significant new information or solution to a problem.	Study based on systematic observation and a literature review. Detailed description of the methodology to collect and analyze the data.	Existing published material is presented with modest analysis or a simple study giving limited data with no meaningful results.	Existing published material is presented, without analysis.

Part B: Originality and Creativity (25%)

Project level:

Judge's rating:

	4	3	2	1
Project Originality and Creativity	<ul style="list-style-type: none"> • Highly original project. • Exemplary design • Original approach. • Very creative use of equipment and/or construction. 	Imaginative project. <ul style="list-style-type: none"> • Good design: • Above ordinary approach. • Good use of resources. • Creativity in design and topic. 	Some creativity. <ul style="list-style-type: none"> • Fair to good design: • Sufficient plan to validate hypothesis. • Standard use of common resources. • Common topic. 	Little imagination. <ul style="list-style-type: none"> • Simple project design: • Partial plan to validate hypothesis. • Minimal student input. • A textbook type project.

Part C: Communication (25%)

Part C will be assessed based on the following elements: video presentation, presentation material (i.e. a prepared slideshow from the student), project report, logbook, and any additional materials submitted by the student.

Project level:

Judge's rating:

	4	3	2	1
Communication	All elements are complete and exceed reasonable expectations of a student at this age/grade. All visual displays are logical, self-explanatory, attractive, and well-presented. The project report and logbook are informative, clearly written, and the bibliography extends beyond web-based articles. The oral presentation is clear, logical, and enthusiastic. In a pair project, both members contributed equitably and effectively to the presentation.	All elements are complete and demonstrate attention to detail and substance. The communication components are each well thought out and executed. In a pair project, both members made an equitable contribution to the presentation.	Some of the four elements are simple, unsubstantial or incomplete, but there is evidence of student attention to communication. In a pair project, one member may have made a stronger contribution to the presentation.	Most or all of the elements are simple, unsubstantial or incomplete. There is little evidence of attention to effective communication. In a pair project, one member may have dominated the presentation.

Judge's comments: