

JUDGING PART I: RUBRICS AND SCORESHEETS



WHAT IS THE GOAL OF A JUDGING RUBRIC?

WHAT AM I TRYING TO ACCOMPLISH?

- This is a good question and one you should ask yourself before designing or developing a judging rubric
- In general though, it is two-fold:
 1. To provide information to the youth submitting the science fair project about what is looked for in a STEM project
 2. To provide information for the judges about what is involved in a science fair and what they should be looking for

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HOW DO I DEVELOP A JUDGING RUBRIC?

- Review the Canada-wide criteria for judging
- Crowd-source examples from other fairs
- Remember: the process is iterative and feedback from youth and judges can help improve things each year

**see resources at www.sciencefairs.ca/learn/for-regional-volunteers/*

PART B: ORIGINAL CREATIVITY - 25%			
Level 1 (low) - 1/3/5	Level 2 (fair) - 6/9/11	Level 3 (good) - 12/16/18	Level 4 (excellent) - 19/22/25
Little imagination shown. Project design is simple with minimal student input. A textbook or magazine type project.	Some creativity shown in a project of fair to good design. Standard approach using common resources or equipment. Topic is a current or common one.	Imaginative project, good use of available resources. Well thought out, above ordinary approach. Creativity shown in design and/or use of materials.	A highly original project or a novel approach. Shows resourcefulness, creativity in design. Use of equipment and/or construction of the project.
PART C: DISPLAY OR ONLINE MATERIALS - 15%			
Level 1 (low) - 0/1/2	Level 2 (fair) - 3/5/7	Level 3 (good) - 8/10/12	Level 4 (excellent) - 13/14/15
The visual display doesn't show scientific skills. Exhibit and layout are simple, unsubstantial or incomplete. Material have not have been prepared independently.	The visual display shows some scientific skills. Exhibit and layout are simple but complete. Material may not have been prepared independently.	The visual display shows scientific skills and is logical. The exhibit and layout are well-presented and complete. The material was prepared independently.	The visual display clearly shows scientific skills, is logical and self-explanatory, and the exhibit is attractive and well-presented. The material was prepared independently.
PART D: PRESENTATION (INTERVIEW) - 15%			
Level 1 (low) - 0/1/2	Level 2 (fair) - 3/5/7	Level 3 (good) - 8/10/12	Level 4 (excellent) - 13/14/15
The presentation isn't clear and doesn't follow a logical order. The communication isn't effective nor enthusiastic. Difficulty to answer questions.	The presentation is clear but doesn't follow a logical order. The communication is somewhat effective or enthusiastic. Student makes logical attempts to answer questions.	The presentation is clear and follows a logical order. The communication is generally well thought out and enthusiastic. Student answers questions efficiently.	The presentation is very clear and logical. The communication is efficient and enthusiastic. Student correctly answers questions confidently.

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How do I transfer my judging rubric into a judging scoresheet?

- Often rubrics will have values associated with where the student scored for that specific criteria
- Once you have those values, total them up and transfer them to the platform being used by the Fair
 - Some fairs are using digital rubrics and forms, so their final scores are calculated automatically
 - Other fairs are using paper-based and it is during the judging debriefs where final decisions in specific categories for projects are decided

Project Name: _____

Student Name(s): _____

Worksheet Instructions:

Please complete sections 1, 2 and 3 for all projects, scoring each item using the scale below. For Section 1, choose only one project type: 1A, 1B or 1C. If you are having difficulty choosing a project type, please contact the BC/Yukon Virtual Science Fair Committee at judging@sciencefairs.ca before you begin.

Scale: 0 = Not Present; 1 = Poor; 2 = Weak; 3 = Satisfactory; 4 = Good; 5 = Excellent

1. SCIENTIFIC METHOD		
1A. EXPERIMENTAL PROJECT: An investigation undertaken to test a scientific hypothesis using experimentation, usually featuring the identification and control of variables.		
PROBLEM / HYPOTHESIS		
1	Existing knowledge and background research were integrated into the formation of the problem/hypothesis.	0 1 2 3 4 5
2	The hypothesis related to the problem, was clearly stated, and provided direction for the project.	0 1 2 3 4 5
METHOD		
3	The experimental design was clearly described and appropriate for solving the problem.	0 1 2 3 4 5
4	Controlled, manipulated, and responding variables were identified and understood.	0 1 2 3 4 5
5	Repetitions of tests and/or appropriate sample size were used to achieve reliable results.	0 1 2 3 4 5
6	The student explained/recorded progress of the project, including procedures, results, and original data.	0 1 2 3 4 5
ANALYSIS / CONCLUSIONS		
7	Appropriate methods were used to present data (e.g., graphs, charts).	0 1 2 3 4 5
8	Appropriate methods were used to analyze data (e.g., statistics).	0 1 2 3 4 5
9	The student demonstrated critical thinking and understanding, including identifying sources of error and experimental limitations (e.g., the effect of variables that could not be controlled).	0 1 2 3 4 5
10	Conclusions were related to the problem/hypothesis and were supported by the data presented.	0 1 2 3 4 5
SUBTOTAL		/ 50

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How can I make the scoresheet available to judges?

How do they submit their completed scoresheet?



- Many different forms – discuss it with your Fair committee
- Online/digital or hard-form/paper-copy
- Each process has its own pros/cons and considerations; again, crowdsource from other regional fairs as we are all happy to share!

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WHAT DO I DO AFTER THE JUDGES SUBMIT THEIR SCORESHEETS?

- This will depend a bit on how your judging is set up
- If you have two rounds of judging, usually between the rounds is when judges deliberate and discuss their scores for a specific category or age-range
- Then, the second round of judging is to re-interview those projects that are ranked highly in the list to firm up the final ranking of projects
 - If there are any conflicts or confusions, the Chief Judge will break the tie
- From there, decisions are generally made about who will be advancing to the Canada-Wide Science Fair