West Kootenay Regional Science Fair

Judging Rubric and Instructions

IMPORTANT NOTE: The mark given to the projects during judging will only be used to determine which projects move on to the regional science fair. **These marks will NOT affect the student's grades.**

Each project is one of two types:

Experiment (Exp.)
An investigation undertaken to test a scientific hypothesis experimentally. The variables, if identified, are controlled.

Innovation (Inn.)
The development and evaluation of innovative devices, models or techniques or approaches in technology, engineering or computers (hardware or software).

Study (St.)
An investigation that synthesizes and analyzes data from a variety of sources.

Use the **appropriate rubric on the back** to assign a Level to Parts A, B, C and D for the project.

Once you have selected the **Level**, please enter a **Mark value** from low, medium or high points (L/M/H) for this level that reflects the quality of the project and its strength relative to other projects you have assigned the same level.

Ex: *Part A : High Level 2, Mark Value Chosen is **22** (out of : ex: (12/17/**22**)).*
*Part B : High Level 1, Mark Value Chosen is **5** (out of : ex: (1/3/**5**)).*
*Part C : Low Level 3, Mark Value Chosen is **8** (out of : ex: (**8**/10/12))*
*Part D : Medium Level 3, Mark Value Chosen is **10** (out of : ex: (8/**10**/12))*

Part of project	**Level**	**Mark value chosen for the level**
PART A: SCIENTIFIC THOUGHT	2	22
PART B: ORIGINAL CREATIVITY	1	5
PART C: DISPLAY	3	8
PART D: PRESENTATION	3	10
TOTAL MARK (**add right column only**):		45

Please fill in the comments section on your judging sheet for each project (this portion will be cut and distributed to the students). Please note that this is meant to be a constructive experience for our students. Many of them have never done a science fair project before this year.

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This rubric was adapted from YSC and GVRSF judging rubrics.

The comments should be constructive, encouraging students to improve their projects and highlighting some elements of the projects that were really well done.

PART A: SCIENTIFIC THOUGHT - 45 % (Choose between Experiment (Exp) OR Innovation (Inn)				
Type	**Level 1 (low) - 1/6/11**	**Level 2 (fair) - 12/17/22**	**Level 3 (good) - 23/29/34**	**Level 4 (excellent) - 35/39/45**
Exp	Duplicate a known experiment to confirm the hypothesis. The hypothesis is totally predictable.	Extend a known experiment through modification of procedures, data gathering, and application.	Devise and carry out an original experiment. Identify and control some of the significant variables. Carry out an analysis using graphs or simple statistics. Conclusions are drawn based on results obtained.	Devise and carry out original experimental research which attempts to control or investigate most significant variables. Include proper statistical analysis in the treatment of data. Conclusions are clearly described/presented and connected back to the data. Statements about the significance of the work are supported and in context. Suggestions for future work are realistic and justified by the results.
Inn	Build models (devices) to duplicate existing technology.	Make improvements to or demonstrate new applications for existing technological systems or equipment and justify them.	Design and build innovative technology or provide adaptations to existing technology that will have evident human benefit and/or economic applications.	Integrate several technologies, inventions or designs and construct an innovative technological system 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.
St.	Collate data from a variety of existing sources without further analysis.	Synthesize data from a variety of sources to confirm existing conclusions.	Synthesize data from a variety of sources to strengthen or extend existing conclusions. Carry out an analysis using graphs or simple statistics. Conclusions are drawn based on results obtained.	Synthesize data from a variety of significant sources to develop new insight and draw new conclusions. Include proper statistical analysis in the treatment of data. Conclusions are clearly described/presented and connected back to the data.. Statements about the significance of the work are supported and in context. Suggestions for future work are realistic and justified by the results.

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.